



**2025-26**

**Goffstown High School  
Program of Studies**



## **GHS Program of Studies 2025-26**

### **Welcome to Goffstown High School!**

Selecting classes is one of the important undertakings students and parents engage in during the high school experience. The document before you shows the myriad of course offerings available at Goffstown High School. Please spend quality time selecting courses that are both appropriately challenging and aligned with students' future goals. Time spent during this important process will yield great long-term dividends.

Support and direction are critical to student success. Teachers, counselors, coaches, and advisors all play a key role in the educational experience of students. I encourage you to use these valuable resources to gather information about the classes offered at Goffstown High School.

Our master schedule is built upon student course requests. It is crucial that students choose the most appropriate classes during this process to minimize the adverse ripple effect future schedule changes create. We understand that life experiences and student desires can change between the selection of classes and September beginning of classes. We strongly encourage and expect students to remain committed to their initial choices and to work through both the challenges and opportunities that can occur with new beginnings. Requests for schedule changes should be the rare exception, as each individual schedule is linked in some way to the 1,100 student schedules that have been created.

I wish you well as you begin this important process. Please do not hesitate to reach out to me, or members of my administrative team, if we can help in any way.

Sincerely,

Francis J. McBride

Principal

### **MISSION STATEMENT**

#### ***Advancing Student Learning***

**Goffstown High School's mission is to be a caring community of impassioned learners who can thrive in the 21<sup>st</sup> Century.**

***We believe*** that caring relationships are the necessary foundation to support all students. Care personalizes the school culture and envisions each student's needs as individual and unique.

***We believe*** that impassioned learners contribute to the school community through their active participation both within and beyond the classroom.

***We believe*** that the contribution that the arts, athletics, and co-curricular activities provide is valuable, and believe that students' participation in these areas better prepares them for the future.

***We believe*** that to thrive in an ever-changing world, all students must be skilled thinkers, communicators, and problem-solvers who work collegially and collaboratively.

#### **21<sup>st</sup> CENTURY LEARNING EXPECTATIONS:**

- Read critically.
- Write and speak effectively.
- Solve problems analytically and creatively.
- Gather, interpret, evaluate, organize and communicate information using a variety of sources and technologies.
- Work independently and collaboratively to solve problems and accomplish goals.
- Demonstrate personal responsibility, character, and ethical behavior.



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# GRADUATION REQUIREMENTS

9	10	11	12
<b>English: 4 credits</b>			
English 9/Honors	English 10/Honors	American Literature/Honors AP Language & Composition AP English Literature	English 12/Honors RS College Composition AP Language & Composition AP English Literature
<b>Social Studies: 3 credits</b>			
World History/Honors Geography/Honors AP Human Geography	Civics/Honors AP American Government	US History/Honors AP US History	
	<b>Economics, Economics Honors, or AP Microeconomics (in year 10, 11, or 12)</b>		
<b>Science: 3 credits</b>			
Integrated STEM Physical Science/Honors Biology Honors	Physical Science Biology/Biology Honors Chemistry or Physics course	Biology Science elective Chemistry or Physics course	0.5 credit science elective
<b>Math: 4 credits</b>			
Integrated STEM Algebra I Geometry Honors Algebra II Honors	Algebra I Geometry/Geometry Honors Algebra II Honors Pre-Calculus Honors	Geometry Algebra II/Algebra II Honors Pre-Calculus/Honors AP Calculus AB	Algebra II Math elective or Math Embedded Math elective or Math Embedded Math elective or Math Embedded
Health: 0.5 credit	Health or Int Wellbeing & Fit		
<b>1 credit in Physical Education</b>			
<b>0.5 credit in Visual or Performing Arts</b>			
<b>0.5 credit in Information &amp; Communication Technologies (ICT)</b>			
<b>6 credits of elective coursework</b>			

## Additional Graduation Criteria:

- 22.5 credit minimum
- Students must complete all graduation requirements to participate in graduation
- Students must pass a local Civics assessment and Citizenship test

## ICT courses:

- All Computer and Networking courses
- Graphic Arts and Digital Photography courses
- Architecture Drafting & Drawing/Intro to CAD
- Piano Lab, Audio Production
- Video Production, Yearbook Fall & Spring
- Business Technologies, Intro to Business

## Math Embedded Courses:

- All Physics & Chemistry courses
- Personal Finance and Accounting courses
- All ICT courses
- All Art courses
- All MST courses

## Adult Diploma option:

- 20 credit minimum
- Requires counselor & Adult Ed Director approval
- Recognized by Goffstown School Board & State of New Hampshire
- Must include at least one course taken through GAP summer, evening or online programs

**Certificate of Attendance:** Students in specialized programs designed to meet their unique needs, who successfully complete the requirements established in the student's Individualized Education Program and do not meet the requirements for a diploma may be awarded a Certificate of Attendance and participate in one graduation ceremony.

## ENROLLMENT REQUIREMENTS

All Grade 9-11 students must be enrolled in at least 6 credit-bearing graded courses at Goffstown High School each semester. Directed studies, classes graded on a pass/fail scale and coursework taken from other accredited institutions do not count in this total.

It is strongly recommended that all seniors enroll in six (6) classes per semester, though seniors who have earned at least 17.5 credits may reduce their credit load to five (5) credit-bearing graded courses. Students planning to attend a 4-year college after high school are strongly encouraged to enroll in at least 6 credit-bearing courses and a rigorous selection of core academic classes.

Students who seek to carry less than the minimum enrollment requirements must submit a written request with parent and counselor support. This request will need the approval of both the Principal and the Superintendent. Students who are approved to carry below the minimum course requirement will not be eligible for honor roll and will not be ranked with their respective class in any semester in which minimum enrollment requirements are not met.

### PREP (Personal Reflective Educational Planning) Period:

Nearly every student has time in the schedule where he/she is assigned to a block that is not credit bearing. Students are expected to use these blocks in a productive way to forward their academic achievement. The first thirty minutes of these blocks is to be used exclusively for sustained silent reading. The remaining sixty minutes is to be used for academic tasks that may include reading, homework, organizing, or other forms of academic preparation. The PREP period teacher is a resource to guide students in ways to most effectively use this time.

## PROMOTION REQUIREMENTS

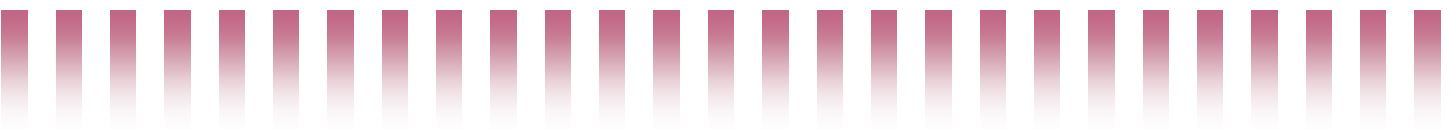
In order for a student to qualify as a member of the indicated class, he/she must achieve:

Grade 10	Sophomore	5.5	credits
Grade 11	Junior	11	credits
Grade 12	Senior	16.5	credits

Students who fall short of the minimum number of credits and/or courses and are in need of credit recovery must pursue the following options: GAP Courses, Correspondence Courses (text or online), or Summer School. Arrangements for these options can be made through your school counselor.

### REQUIREMENTS FOR EARLY GRADUATION

Information regarding early graduation requirements and process can be obtained through the School Counseling Office. Please speak directly with your school counselor to answer any questions you may have. Early graduation applications are due prior to June 1st of the junior year. Late applications will not be accepted.





# GRADING SYSTEM

Assessment of student learning is important for monitoring student progress and designing differentiated instruction. Formal and informal assessment methods are used to address a range of skills. These assessments may include curriculum-based measures, quizzes, tests, projects, presentations, reports, demonstrations, and various written and oral activities.

The interpretation of numerical grades is as follows:

	Percent	4.0 Scale	Honors Weight	4.5 Scale	AP Weight	5.0 Scale
A+	100	4.0	0.5	4.5	1.0	5.0
	99	4.0	0.5	4.5	1.0	5.0
	98	4.0	0.5	4.5	1.0	5.0
A	97	3.8	0.5	4.3	1.0	4.8
	96	3.8	0.5	4.3	1.0	4.8
	95	3.8	0.5	4.3	1.0	4.8
	94	3.8	0.5	4.3	1.0	4.8
	93	3.8	0.5	4.3	1.0	4.8
A-	92	3.6	0.5	4.1	1.0	4.6
	91	3.6	0.5	4.1	1.0	4.6
	90	3.6	0.5	4.1	1.0	4.6
B+	89	3.4	0.5	3.9	1.0	4.4
	88	3.4	0.5	3.9	1.0	4.4
	87	3.4	0.5	3.9	1.0	4.4
B	86	3.0	0.5	3.5	1.0	4.0
	85	3.0	0.5	3.5	1.0	4.0
	84	3.0	0.5	3.5	1.0	4.0
	83	3.0	0.5	3.5	1.0	4.0
B-	82	2.6	0.5	3.1	1.0	3.6
	81	2.6	0.5	3.1	1.0	3.6
	80	2.6	0.5	3.1	1.0	3.6
C+	79	2.4	0.5	2.9	1.0	3.4
	78	2.4	0.5	2.9	1.0	3.4
	77	2.4	0.5	2.9	1.0	3.4
C	76	2.0	0.5	2.5	1.0	3.0
	75	2.0	0.5	2.5	1.0	3.0
	74	2.0	0.5	2.5	1.0	3.0
	73	2.0	0.5	2.5	1.0	3.0
C-	72	1.6	0.5	2.2	1.0	2.6
	71	1.6	0.5	2.2	1.0	2.6
	70	1.6	0.5	2.2	1.0	2.6
D+	69	1.4	0.5	1.9	1.0	2.4
	68	1.4	0.5	1.9	1.0	2.4
D	67	1.0	0.5	1.5	1.0	2.0
	66	1.0	0.5	1.5	1.0	2.0
	65	1.0	0.5	1.5	1.0	2.0
F	64-50	0.4	0.5	0.9	1.0	1.4

# ACADEMIC RECOGNITION & HONOR ROLL

## CLASS RANKING FOR THE CLASS OF 2026, 2027

Class rank is determined using a weighted grade point average. This is calculated using a value-added system based on a 4.0 scale.

- Any grade in an AP level course leads to the addition of 1.0 to the scale. Example, a 3.5 becomes a 4.5
- Any grade in an Honors level or Running Start course leads to the addition of .5 to the scale. Example, a 3.5 becomes a 4.0
- Any grade in an open level course has no added value. Example, a 3.5 remains a 3.5

To be eligible to be ranked with a student's class, a student must maintain minimum enrollment requirements for their respective grade level.

Further details, and a full listing of courses, may be obtained through the Student Services Office.

## LATIN HONORS FOR THE CLASS OF 2028 and beyond

For exemplary academic achievement, students will be recognized with the following levels of distinction within the Latin Honors system:

- **Summa Cum Laude:** GPA 4.0 or higher
- **Magna Cum Laude:** GPA 3.9 – 3.99
- **Cum Laude:** GPA 3.6 – 3.79

\*In addition to rank, students in the Class of 2026 and 2027 will also be recognized with Latin Honors.

## HONOR ROLL REQUIREMENTS

Students are recognized for high scholastic achievement each quarter by earning grades that qualify. To be eligible for honor roll, students must meet minimum enrollment requirements.

Courses assigned a letter grade on the school-wide grading scale are used in determining honor roll:

Principal's Honor Roll: No grade lower than an A-

General Honor Roll: No grade lower than a B-

# TRANSFER & PREREQUISITE CREDITS

Students may take courses outside of the school day for a variety of purposes which include credit recovery, supplemental coursework, or attainment of pre-requisites. Students choosing to complete work from other accredited institutions should review with their counselor and obtain administrative approval.

## TRANSFER CREDITS:

Credits submitted for consideration from other schools and learning opportunities beyond those provided at Goffstown High School will be reviewed and assessed by GHS administration. Credit and weight values will be applied in alignment with GHS courses and added value grading system.

## EDMENTUM COURSEWORK

The GAP offers online credit recovery through Edmentum. In-person learning is the preferred instructional model of the GAP program, though Edmentum can be used when a course is not offered through evening or summer classes during an academic year. Edmentum coursework is competency based and credit will be awarded on a pass/fail basis. Edmentum coursework does not count in minimum enrollment requirements.

## PREREQUISITES:

Prerequisites are designed as guides to promote student success. Placement in a course always takes students' individual differences and needs into account.

# COURSE CHANGES

## COURSE DROP/ADD PROCEDURES

A change request made within five (5) school days of the start of a semester will be considered taking into account the following: student's original course requests, student course load, fulfillment of course prerequisites and class size (the change must not affect class size negatively). A formal request to add/drop a class, once initiated, must be decided upon and implemented within three (3) school days. Requests to change a student's schedule for the following reasons will take priority:

Not enough or too many classes scheduled

Inappropriate placement in a class (the student has not met the prerequisite or is in the wrong level)

Placement in a class the student did not request

The need to add courses to meet graduation requirements (students in grades 11 and 12)

Students cannot request a schedule change for the purpose of rearranging their schedule, accommodating a late arrival or early release, or being in the same class as a peer.

## DROPPING A CLASS WITH PENALTY:

A student must seek administrative approval to drop a course beyond the five (5) day drop/add period. Any course drop approved after the close of a quarter will result in the quarter grade remaining as part of the legal record and a WD being recorded on the transcript. Requests to drop a course after the second progress report in a semester will be considered as a drop at the semester with the numerical grade being recorded on the transcript. Students impacted by documented medical conditions or extenuating circumstances may seek administrative exception to the penalty.

## LEVEL CHANGE MID-SEMESTER

In some instances, it may be in a student's best interest to change a level after the add/drop period has ended. A change in level mid-semester should be done at the quarter marking period with the stored grade in the initial placement being transferred to the new level and teacher. The semester grade will be weighted at the added-value category associated with the lowest level a student is enrolled in for the semester.

## TEACHER CHANGE REQUESTS

Teacher change requests will be considered on a case by case basis after all steps have been made to address concerns. These steps include:

- Parent and student contact the teacher to express concerns.
- If concerns are not resolved, the parent/student will address concerns with the school counselor.
- Parent, student, counselor, and teacher will conference to discuss concerns and possible interventions.
- Continued concern and request for teacher change will be reviewed by the administrative team. Requests for change will only be considered if a change does not negatively impact class sizes.
- Students who remain with the initial teacher placement will have regular check-ins with the school counselor to monitor progress and effectiveness of interventions.



# PROGRAMS & SERVICES

## ENGLISH LANGUAGE LEARNERS



Students who qualify for English Speakers of Other Languages (ESOL) services, as shown by the ACCESS 2.0 test and other assessments, are enrolled in an English Language Development (ELD) course designed for English Language Learners. Students taking this course will improve their listening, speaking, reading, and writing proficiency. English Language Learners will have access to curriculum tailored to their individual language needs. Through the ELD course students are provided extra time and support as they work on assignments and assessments for other courses.

## THE GAP AT GHS - ADULT EDUCATION PROGRAM



The primary goal of the GAP at GHS is to facilitate an adult student's completion of their high school education by providing a flexible and supportive environment where the foundation is laid for success in either post-secondary education or the job market. Adult education classes are run in the evenings to allow working individuals better access to courses. Any student 16 years of age or older (no maximum age limit) can enter the GAP program and work toward completing their high school diploma or taking classes for enrichment purposes. There may be fees associated with this program, contact the GAP director for more information.

*The GAP diploma  
meets the State of  
NH minimum  
graduation  
requirements.*

## HIGH SCHOOL EQUIVALENCY TESTING & PREPARATION

The GAP at GHS is recognized by the New Hampshire Department of Education as a high school equivalency testing center. Students must be 18 years of age to take an equivalency exam. Students who are 16 and 17 years of age are required to obtain a waiver to the age requirement. Students interested in completion through one of the state approved equivalency tests should contact the GAP director to begin the process.

## SECTION 504



If your student has a documented disability, they may qualify for accommodations through a 504 plan. Eligibility for a 504 plan is determined through the referral process in which a team is convened. For eligibility purposes, a disability is defined as "a physical or mental impairment that limits one or more major life activity."

*Is your student  
struggling? Contact  
your student's  
counselor to discuss  
interventions.*

## SPECIAL EDUCATION

Goffstown High School offers a variety of services to meet the individualized needs of our diverse learners. Students who meet the criteria for special education receive related services and support as deemed appropriate by the student's (IEP) Individual Educational Plan and as dictated by state and federal regulations.

# COLLEGE AND CAREER READINESS

School Counselors are invested in providing opportunities for students to explore career interests and opportunities in each year of the high school experience. Career Readiness is measured on the high school transcript in the following stages:

- Not Started
- Progressing (student is enrolled or working toward a Career Readiness Credential)
- Complete (student has successfully completed a Career Readiness Credential)

**The State of New Hampshire identifies Career Readiness Credentials as activities that include:**

- Completion of a CTE program
- Dual Enrollment classes that provide an opportunity to earn high school and college credit concurrently
- Internships, Apprenticeships, and Work Based Learning
- Completing a Career Readiness Pathway
- Earning an industry recognized credential
- Meeting or exceeding statewide or nationwide metrics such as AP exams, SAT, & the ASVAB
- Earning recognition as a NH Scholar

## NEW HAMPSHIRE SCHOLARS

New Hampshire Scholars works with schools across the state to set strong academic goals for students. Goffstown High School is one of 87 schools in the state that participate in this program. The NH Scholars Core Course of Study is designed to prepare students for college, vocational/technical and workforce demands. Students who complete the Core Course of Study and maintain a GPA over a 2.6 are eligible for recognition. Benefits of recognition include participation in New Hampshire Scholars Recognition Day, medal to wear on graduation day, and scholarship opportunities at New Hampshire colleges.

### CORE COURSE OF STUDY:

- 4 years of English
- 4 years of Math
- 3 years of Science (Biology, Chemistry, and additional lab science)
- 3.5 years of Social Studies/Social Science\*
- 2 years of a Foreign Language

Physical Science is not an approved lab science for New Hampshire Scholars

\*approved content areas include social studies, business, and a third year of a foreign language

## NEW HAMPSHIRE SEAL OF BILITERACY

The Seal of Biliteracy is given in recognition of students who have studied and attained proficiency in two or more languages prior to graduation. To meet the criteria for this award, students must meet all high school graduation requirements, demonstrate proficiency in English, and demonstrate proficiency in one additional world language. Students interested in pursuing this award should inquire with their world language teacher or the school counseling department.



# ACADEMIC PLANNING

## GRADE LEVEL COURSE REQUIREMENTS & RECOMMENDATIONS:

There are required core academic requirements in each academic year based on grade level with flexibility in levels and course sequence to match individual student skill level and pre-requisite completion. Each year a student has the potential to take between 2-3 credits beyond required coursework. It is recommended that students use this space to fulfill graduation requirements and to choose courses that promote career exploration. Goffstown High School has a variety of electives that can be stacked to complete career pathways. Juniors in good credit standing are eligible to apply to CTE programming. Sophomores may be eligible on a space available basis.

Grade	Required Courses	Minimum Enrollment	Recommended Enrollment
9	English, World History/Geography, Math, Science	6 credits	7 credits
10	English, Civics, Health, Math, Science	6 credits	7 credits
11	English, US History, Math, Science	6 credits	7 credits
12	English, Math	5 credits	7 credits

## COURSE LEVEL DESIGNATIONS

**Advanced Placement (AP):** Students who take these courses are prepared to take the AP exam. Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.

**Honors:** These programs require a significant amount of self-directed independent work. Students who select these courses should have demonstrated outstanding academic and analytical skills while being able to deal with abstract concepts. Teacher recommendation and previous achievement are considered, along with assessment data, in placement into honors level programs.

**Running Start (Early College):** Through a partnership with New Hampshire Community and Technical Colleges students may enroll in college courses offered at the high school at a reduced cost. Students in grades 10 through 12 enrolled in these courses can elect to receive both college and high school credit. **In the event that a teacher does not hold the college-level teaching credentials required by the Community College System of New Hampshire (CCSNH), a course may change to an honors level with the same name.**

**Open:** These programs provide students with a rigorous academic curriculum and require analysis, critical thinking and a commitment to meet high academic standards. Post-secondary institutions and employers expect success in standard level courses. Successful completion of standard level programs provides the foundation needed for a successful post-secondary experience.

**Applied:** Courses at this level are designed to meet minimum graduation requirements and do not prepare a student for the open level curriculum. These courses are not intended to be college preparatory and will not satisfy the NCAA Clearinghouse's definition of "core courses" for athletic eligibility purposes.

**Life Skills:** these courses focus on skills that will enable students to work toward their Individualized Education Plan (IEP) goals. These courses are designed to provide opportunities to practice skills that are important for success in the community and future workplace. Courses with this designation will be awarded elective credit and do not fulfill core graduation requirements.



## ACADEMIC PLANNING (cont.)

Each student will have an academic planning appointment with their counselor to review and finalize course requests prior to submissions. In this meeting, students will review career interests, graduation requirements, and coursework that supports future career goals. Completing a 4-year plan can help students set goals and complete career pathways.

Requirements	Grade 9	Grade 10	Grade 11	Grade 12
English (4 credits)				
Math (4 credits)				
Science (3 credits)				
Social Studies (3 credits)				
Health, PE, Art, ICT				
Elective				
Elective				

## CAREER PATHWAYS

Goffstown High School offers programming for students in 6 Career Clusters including:

- ◆ Architecture & Construction
- ◆ The Arts
- ◆ Business & Marketing
- ◆ Family & Consumer Science
- ◆ Health Science
- ◆ STEM (Science, Technology, Engineering & Math)

Each of these Career Clusters have several Career Pathways that allow students the opportunity to engage in coursework that leads to college credit and/or an industry recognized credential. Students can begin work on these pathways in the freshman year and continue through graduation. Students looking to get industry experience can augment the classroom experience by enrolling in the School-to-Work Internship class.



# ARCHITECTURE & CONSTRUCTION

## ELECTRICAL TECHNOLOGY

Students interested in a career in the electrical trades can prepare by taking a combination of coursework through Goffstown High School and the Manchester School of Technology.

Courses in business are recommended for students who may have an interest in being an independent contractor.

Min. 6 credits to complete this pathway.

### Grade 9

Take **ONE** of these .5 credit courses:

- Architecture Drafting & Drawing
- Creative Welding
- Intro to Business
- Introduction to CAD

### Grade 10

Take **ONE** of these courses:

- Architecture Drafting & Drawing
- Creative Welding
- Creative Welding II
- Intro to Business
- Introduction to CAD
- RS Accounting I

### Required Coursework:

Grade 11: Electrical Tech I (MST)  
Grade 12: Electrical Tech II (MST)

Choose **ONE** credit from this list:

- Business Technologies
- Intro to Business
- Introduction to CAD
- RS Accounting
- RS Accounting II
- RS College Composition\*
- RS Principles of Management
- RS Principles of Marketing

\*RS College Composition is a required course in the Electrical Technology program at MCC.

## HVAC

Students interested in a career in heating, ventilation, and air conditioning can prepare by taking a combination of coursework through Goffstown High School and the Manchester School of Technology.

Courses in business are recommended for students who may have an interest in being an independent contractor.

Minimum of 6 credits to complete this pathway.

### Grade 9

Take **ONE** of these .5 credit courses:

- Architecture Drafting & Drawing
- Creative Welding
- Intro to Business
- Introduction to CAD

### Grade 10

Take **ONE** of these courses:

- Architecture Drafting & Drawing
- Creative Welding
- Creative Welding II
- Intro to Business
- Introduction to CAD
- RS Accounting I

### Required Coursework:

Grade 11: HVAC I (MST)  
Grade 12: HVAC II (MST)

Or...HVAC 101 Early College

Choose **ONE** credit from this list:

- Business Technologies
- Intro to Business
- Introduction to CAD
- Physics Honors\*
- Pre-Calculus/Pre-Calc H\*
- RS Accounting
- RS Accounting II
- RS College Composition\*\*
- RS Principles of Management
- RS Principles of Marketing

\* MCC recommends students to take Physics and an advanced level of mathematics.

\*\*RS College Composition is a required course in the HVAC program at MCC.



# ARCHITECTURE & CONSTRUCTION (cont.)

## RESIDENTIAL CARPENTRY

Students interested in a career in the residential construction industry can prepare themselves by attending the Manchester School of Technology and completing coursework at Goffstown High School.

Courses in business are recommended for students interested in owning their own business or becoming an independent contractor. Minimum of 6 credits to complete this pathway.

### Grade 9

Take **ONE** of these courses:

- 2-D Design
- 3-D Design
- Architecture Application
- Architecture Drafting & Drawing
- Creative Welding
- Intro to Business
- Introduction to CAD
- Wood Engineering I

### Grade 10

Take **ONE** of these courses:

- 2-D Design
- 3-D Design
- Architecture Application
- Architecture Drafting & Drawing
- Creative Welding
- Creative Welding II
- Intro to Business
- Introduction to CAD
- Wood Engineering I
- Wood Engineering II

### Required Coursework:

- Grade 11: Residential Carpentry I (MST)
- Grade 12: Residential Carpentry II (MST)

Choose **ONE** credit from this list:

- Business Technologies
- Earth Science/Earth Science Honors
- Intro to Business
- Introduction to CAD
- RS Accounting I
- RS College Composition
- RS Principles of Management
- RS Principles of Marketing

## RESIDENTIAL PLUMBING

Students interested in a career in the residential plumbing can prepare by taking a combination of coursework through GHS and the Manchester School of Technology.

Courses in business are recommended for students who may have an interest in being an independent contractor.

Minimum of 6 credits to complete this pathway.

### Grade 9

Take **ONE** of these courses:

- Architecture Drafting & Drawing
- Creative Welding
- Intro to Business
- Introduction to CAD

### Grade 10

Take **ONE** of these courses:

- Architecture Drafting & Drawing
- Creative Welding
- Creative Welding II
- Intro to Business
- Introduction to CAD
- RS Accounting I

### Required Coursework:

- Grade 11: Residential Plumbing I (MST)
- Grade 12: Residential Plumbing II (MST)

Choose **ONE** credit from this list:

- Business Technologies
- Intro to Business
- Introduction to CAD
- RS Accounting I
- RS Accounting II
- RS College Composition
- RS Principles of Management
- RS Principles of Marketing
- RS Engineering & Manufacturing

# THE ARTS

## LITERARY ARTS

Students interested in pursuing a degree in English, Journalism, Writing, or another related field should pursue additional coursework in the English department and consider co-curricular activities such as the Pawprint or the Podcast.

Minimum 6 credits to complete this pathway.

### Grade 9

Choose **ONE** from this list:

- English 9
- English 9 Honors

### Grade 10

Choose **ONE** from this list:

- English 10
- English 10 Honors

### Grade 11

Choose **ONE** from this list:

- American Literature H
- AP Language & Comp

### Grade 12

Choose **ONE** from this list:

- RS College Composition
- AP English Literature

Choose **TWO** credits from this list:

- Creative Writing H
- Great Decisions Honors
- Journalism Honors
- Non-Western Literature H
- Psychology/Psych H
- Sociology/Soc H
- Video Production Honors
- Women's Perspectives
- Writing Workshop

## PERFORMING ARTS

Students interested in pursuing a career in music, dance or theater can prepare for a college major in performance by completing coursework in this pathway.

Participation in co-curricular performance opportunities and audition-based select groups are strongly encouraged.

Minimum of 5 credits to complete this pathway.

### Grade 9

Choose **ONE** from this list:

- Band
- Chorus
- Movement & Dance Company
- Orchestra

### Grade 10

Choose **ONE** from this list:

- Band
- Chorus
- Movement & Dance Company
- Orchestra

### Grade 11

Choose **ONE** from this list:

- Band
- Chorus
- Movement & Dance Company
- Orchestra

### Grade 12

Choose **ONE** from this list:

- Band
- Chorus
- Movement & Dance Company
- Orchestra

Choose **ONE** credit from this list:

- 20<sup>th</sup> Century Pop Music
- Acting & Directing
- Audio Production
- Band
- Chorus
- Guitar Lab
- Intro to Dance
- Movement & Dance Co.
- Music Theory
- Orchestra
- Piano Lab
- Technical Production

## VISUAL ARTS

The Visual Arts pathway includes occupations involved in artistic creation through painting, sculpting, illustrating, interior design, or fashion, and the use of an assortment of materials including oils, watercolors, acrylics, pastels, pencils, pen and ink, photography, clay, metals, textiles, and computers.

Minimum of 5 credits to complete this pathway.

### Required Coursework:

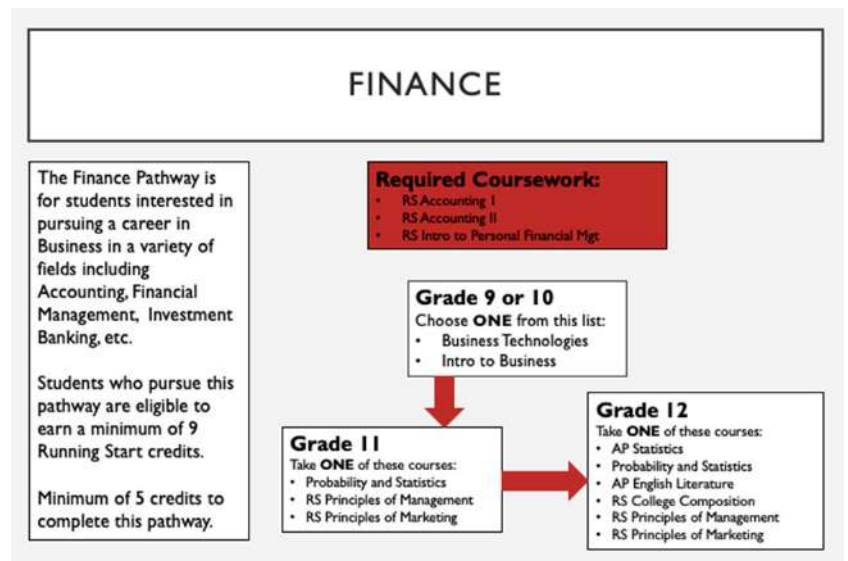
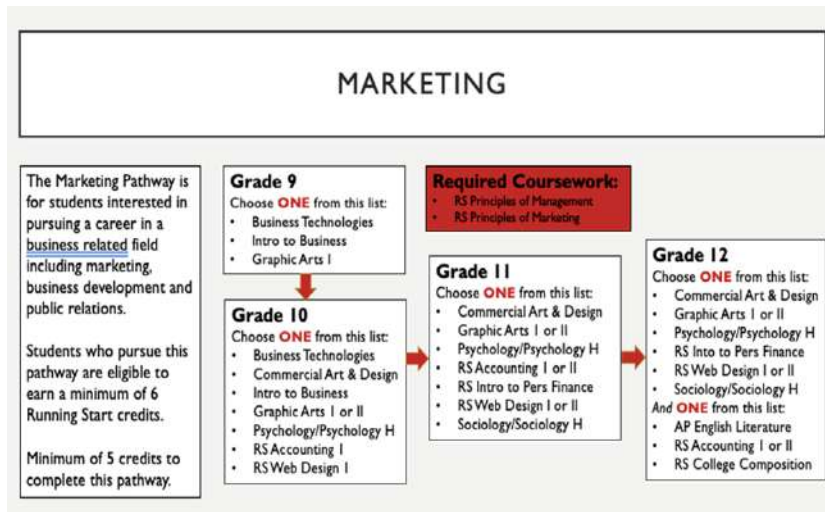
- 2-Dimensional
- 3-Dimensional Design

Students pursuing the arts in college will need to prepare a portfolio of work as a supplement to the college application.

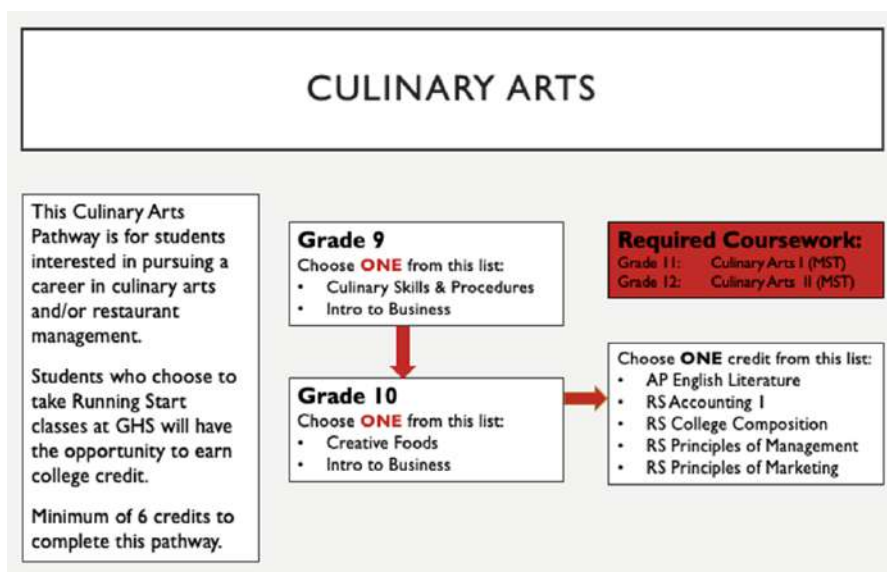
Choose **3.5** credits from this list:

- AP Art
- Artisan Crafts
- Ceramics I
- Ceramics II
- Creative Welding
- Creative Welding II
- Drawing
- Drawing & Painting
- Graphic Arts
- Graphic Arts II
- Interior Design
- Jewelry & Ornament Design
- Painting
- Darkroom Photography
- Digital Photography
- Sculpture

# BUSINESS & MARKETING



# FAMILY & CONSUMER SCIENCE





# HEALTH SCIENCE

## ALLIED HEALTH PROFESSIONS

Allied Health Professionals include dental hygienists, diagnostic medical sonographers, dietitians, medical technologists, radiographers, and respiratory therapists. Many of these paths begin through associate degrees at community colleges.

Students interested in these careers should engage in rigorous math and science coursework in every year of high school. Chemistry is required for this pathway.

Minimum of 6 credits to complete this pathway.

### Grade 9

Choose **ONE** from this list:

- Biology/Biology H
- Physical Science/ Phys Sci H

### Grade 10

Choose **ONE** from this list:

- Biology/Biology H
- Chemistry/Chemistry H
- Physics Honors

### Grade 11

Choose **ONE** from this list:

- Chemistry/Chemistry H
- Human Biology
- Physics Honors
- RS Anatomy & Physiology

### Grade 12

Choose **ONE** from this list:

- Chemistry/Chemistry H
- Human Biology
- Physics Honors
- RS Anatomy & Physiology

And **ONE** from this list:

- AP Calc AB or BC
- AP Statistics
- Calculus H
- Pre-Calculus/Pre-Calc H
- Probability & Statistics

Choose **ONE** credit from this list:

- AP Biology
- AP Chemistry
- AP English Literature
- AP Physics I/II
- EMT Basic (MST)
- Health Science II (MST)
- Human Biology
- Physics H
- Psychology/Psych H
- RS College Comp
- Sociology/Soc H

**Required Coursework:**  
Students pursuing this pathway must complete at least one credit in Chemistry.

## NURSING & PRE-HEALTH STUDIES

This pathway is for students who will pursue a bachelor's degree in nursing or a pre-health professions field such as dentistry, medicine, pharmacy, occupational therapy, physical therapy, or veterinary science.

These fields require an extensive background in math and science. As students progress through high school, the rigor of math and science coursework should increase.

Minimum of 7 credits to complete this pathway.

### Grade 9

Choose **ONE** from this list:

- Biology/Biology H
- Physical Science/ Phys Sci H

### Grade 10

Choose **ONE** from this list:

- AP Physics
- Biology/Biology H
- Chemistry/Chemistry H
- Physics Honors

### Grade 11

Choose **ONE** from this list:

- AP Biology
- AP Chemistry
- AP Physics I or II
- Chemistry/Chemistry H
- Physics Honors
- RS Anatomy & Physiology

### Grade 12

Choose **ONE** from this list:

- AP Biology
- AP Chemistry
- AP Physics I or II
- Chemistry/Chemistry H
- Physics Honors
- RS Anatomy & Physiology

And **ONE** from this list:

- AP Calc AB or BC
- AP Statistics
- Calculus H
- Pre-Calculus/PreCalc H

Choose **TWO** credits from this list:

- AP Biology
- AP Chemistry
- AP English Literature
- AP Physics I/II
- Human Biology
- Physics H
- Psychology/Psych H
- RS College Comp
- Sociology/Soc H

**Required Coursework:**  
Students pursuing this pathway must complete at least one credit in Chemistry.

# STEM-SCIENCE, TECHNOLOGY, ENGINEERING, & MATH

## ENGINEERING

The Engineering Pathway is for students interested in pursuing a bachelor's degree in fields including bio-medical engineering, chemical engineering, civil engineering, electrical engineering, and environmental engineering. The core pre-requisites for all engineering programs include calculus, chemistry, and physics.

Minimum 6 credits to complete this pathway.

### Grade 9

Choose **ONE** from this list:

- 2-D Design
- 3-D Design
- Creative Welding
- Intro to CAD
- Wood Engineering I

### Grade 10

Choose **ONE** from this list:

- 2-D Design
- 3-D Design
- Creative Welding I/II
- Intro to CAD
- Wood Engineering I/II

### Grade 11

Choose **ONE** from this list:

- Chemistry/Chemistry H
- AP Chemistry
- AP Physics I or II
- Physics H

And **ONE** from this list:

- AP Calc AB
- Calculus Honors
- Pre-Calculus/Pre-Calc H

**Required Coursework:**  
Students pursuing this pathway must complete at least one credit in Chemistry and Physics.

### Grade 12

Choose **ONE** from this list:

- AP Biology
- AP Chemistry
- AP Physics I or II
- Chemistry/Chemistry H
- Physics H

And **ONE** from this list:

- AP Calc AB or BC
- Calculus Honors

Choose **ONE** credit from this list:

- AP Biology
- AP Chemistry
- AP Physics I/II
- RS Eng & Mfg
- RS Environmental Science
- RS Intro to Comp Program
- RS Intro to Robotics

## ENGINEERING & MANUFACTURING TECHNOLOGY

Students interested in the Engineering and Manufacturing Pathway may be considering an Associate's or Bachelor's degree in an engineering related field. Some majors that this pathway will prepare a student for are mechanical engineering technology, electrical engineering technology, advanced manufacturing technology, or robotics.

Minimum 5.5 credits to complete this pathway.

### Grade 9

Choose **ONE** from this list:

- 2-D Design
- 3-D Design
- Creative Welding
- Intro to CAD
- Wood Engineering I

### Grade 10

Choose **ONE** from this list:

- 2-D Design
- 3-D Design
- Creative Welding I/II
- Intro to CAD
- Wood Engineering I/II

### Grade 11

Choose **ONE** from this list:

- Algebra 2/Algebra 2 H
- Chemistry/Chemistry H
- Physics H

### Grade 12

Choose **ONE** from this list:

- Pre-Calculus/Pre-Calc H
- Chemistry/Chemistry H
- Physics H
- AP Physics

**Required Coursework:**  
Students pursuing this pathway must complete at least one credit in Chemistry and Physics.

Choose **ONE** credit from this list:

- AP English Literature
- Intro to CAD
- RS Eng & Mfg
- RS College Composition
- RS Intro to Comp Program
- RS Intro to Robotics



# ART COURSE OFFERINGS

Students should take either 2-Dimensional Design and/or 3-Dimensional Design as foundation courses. Any art course meets the fine art requirement for graduation.

## 2-Dimensional Art Courses

### 2-Dimensional Design

**Grades 9-12**

**Course #201**

**0.5 credits**

Would you like to develop your drawing and painting skills? This course explores the areas of drawing, painting, design, printmaking, lettering and more. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques. This course of study allows students to continue into the next level in the following areas: Drawing and Painting, Interior Design, Artisan Crafts and Jewelry & Ornamental Design.

### Interior Design

**Grades 9-12**

**Course #215**

**0.5 credit**

#### **Pre-requisite: 2-Dimensional Design**

This course offers an artist's approach to designing spaces. Learn to make the living spaces in your life both functional and beautiful. Students will be introduced to the physiological and psychological effects of color, pattern, texture, lighting and design through floor plans, furniture placement, and room design. Major forces that effect styles will be examined. Career opportunities will be explored. Analytical and creative problem solving and divergent idea development will be nurtured.

### Painting Honors

**Grades 10-12**

**Course #231**

**0.5 credit**

#### **Pre-requisite: Drawing & Painting**

Color has an immediate and profound effect on one's body and mood. Explore color through acrylic, watercolor and oil painting. Develop your painting skills and a personal voice. Various painting techniques and methods will be employed in order to enrich the student's understanding of historical and contemporary styles. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques.

### Drawing & Painting

**Grades 9-12**

**Course #205**

**0.5 credits**

#### **Pre-requisite: 2-Dimensional Design**

Take your skills to a new level! Develop your abilities and techniques introduced in Visual Art and 2-D Design through in-depth assignments. Composition, observation, and self-expression through exploration of various media and topics will be emphasized. Selected artists, art works and styles will be discussed. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques.

### Drawing Honors

**Grades 10-12**

**Course #230**

**0.5 credit**

#### **Pre-requisite: Drawing & Painting**

This course is perfect for the student who would like to further develop his/her drawing skills, with the goal of cultivating a personal voice. It will focus on imagination, observation and self-reflection as well as media experimentation. Original idea development will be fostered, as the works of past and current artists are examined. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques.



# ART COURSE OFFERINGS (cont.)

## 3-Dimensional Art Courses

### 3-Dimensional Design

Grades 9-12

Course # 202

0.5 credit

Are you a hands-on-learner? If you prefer sculpting, constructing, modeling, shaping, carving and building, this course is perfect for you! The class incorporates plaster, clay, wire, and more, as well as art history/appreciation. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques. This course of study allows students to continue into the next level, in the following areas: Ceramics I, Artisan Crafts, Sculpture, and Jewelry & Ornamental Design.



### Sculpture Honors

Grades 9-12

Course #233

0.5 credit

**Prerequisite:** 3-Dimensional Design

Carve! Chisel! Model! Create a form from a block, a rock or clay. Students will apply both additive and subtractive methods to more sophisticated mediums. The history of sculpture and its role in art will be covered. Analytical and creative problem solving, and divergent idea development, will be nurtured. Students will produce oral and written critiques.

### Ceramics I

Grades 9-12

Course #221

0.5 credit

**Prerequisite:** 3-Dimensional Design

This course is for the student who is passionate about working with clay. While creating a variety of products, students will review design skills and be introduced to the basic hand-building techniques: pinch, coil, slab and sculpture. Wheel throwing will be introduced. Functional and non-functional pieces will be created. The history of ceramics and its role in art will be covered. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques.

### Ceramics II Honors

Grades 10-12

Course # 229

0.5 credits

**Prerequisite:** Ceramics I

This course gives students the chance to further explore clay as an expressive medium. Students will build upon previously acquired skills while also learning new techniques. They will have more freedom to identify and pursue their own areas of interest, while exploring new applications for clay in a variety of projects. Historical and contemporary references will be made and discussed. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques.



# ART COURSE OFFERINGS (cont.)

## Mixed Media Art Courses

### Jewelry & Ornament Design Honors Grades 9-12

Course # 232 0.5 Credit

**Prerequisite:** 2-D or 3-D Design

Do you love to express yourself with colors, shapes and textures? This course introduces students to the fundamentals of jewelry design and ornamental crafts. Students will learn to develop jewelry ideas from sketch to finished products. Discussions and demonstrations will include color and patterning, methods of construction, use of findings, correct bonding methods and craftsmanship. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques. The origins of jewelry as a form of individual expression will be explored, as well as the historical and cultural value of this craft. Basic presentation and display techniques and career/business opportunities will be covered.



### Intro to Darkroom Photography Grades 9-12

Course # 1448 0.5 credit

**A 35mm SLR manual camera is required for this course.**

This course introduces the fundamental skills of photographic practice. Students learn the basics of black and white photography technical aspects of 35mm camera controls, exposure, film developing and printing, and darkroom chemistry.

Assignments will focus on both technical and aesthetic concerns. Class topics include the history of photography, composition, lighting, photo papers, toning, and studio lighting. Credit in this course can be applied to the Fine Arts graduation requirement. The school will supply a limited number of cameras upon request.

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### Artisan Crafts Grades 9-12

Course # 226 0.5 credit

**Prerequisite:** 2-D or 3-D Design

Would you describe yourself as creative? If so, this course is the perfect place for you to design and produce quality crafts. It covers a wide variety of traditional and contemporary techniques and materials including wood burning, acid etching, folk art and more. A wide range of multi-cultural, historical, and current trends will be included. Analytical and creative problem solving and divergent idea development will be nurtured. Students will produce oral and written critiques.

### AP Art & Design Grades 11-12

Course # 228 1 credit

**Prerequisite:** 4 Art Classes

This course encompasses three different pathways (2-D, 3-D, and Drawing) corresponding to college and university foundation courses. Students create a portfolio of work to demonstrate inquiry through art and design. May take in both junior and senior year with a different focus.



# BUSINESS COURSE OFFERINGS

## Introduction to Business

**Grades 9-12**

**Course # 305**

**0.5 credit**

**Satisfies the ICT graduation requirement**

This course explores the field of business studies. Units identify key components of business – management, marketing, finance/accounting, and law, with opportunities for students to explore these areas through case studies, review of current trends, and projects. Current industry technology applications are used for projects and presentation.

## Business Technologies

**Grades 9-12**

**Course # 310**

**0.5 credit**

**Satisfies the ICT graduation requirement**

Students will utilize the current Microsoft Office suite of applications and/or Microsoft 365 to complete various activities found in “real-world” business settings. These activities will include Digital Literacy, Digital Citizenship, Business Applications, and Emerging Technologies.

## RUNNING START COURSES

### RS Principles of Marketing

**Grades 10-12**

**Course #316**

**1 credit**

This course introduces students to the fundamentals of marketing, retailing, and selling/service businesses, as well as basic economic concepts. Major components consist of marketing principles, product development, pricing, channel management, and sales promotion. The goal of the course is to enable students to understand and apply marketing, management, and entrepreneurial principles to make rational economic decisions, and to exhibit social responsibility in a global economy.

### RS Principles of Management

**Grades 11-12**

**Course #315**

**1 credit**

This course will cover the principles and techniques underlying the successful organization and management of businesses. Using traditional analyses and extensive projects and case studies, students will be introduced to the management functions necessary to successfully run a small business.

### RS Accounting I

**Grades 10-12**

**Course # 312**

**1 credit**

This course emphasizes the general principles that are used in accounting systems of both service and merchandising businesses. Students learn to record and post transactions, prepare financial statements, and adjust and close accounts at the end of a fiscal period. Students begin analysis of financial reports from a management perspective. Accounting I provides a foundation for students expecting to pursue higher education in any business field, or open their own business in the future.

### RS Accounting II

**Grades 11-12**

**Course # 313**

**1 credit**

Students transfer the skills learned in Accounting I to preparing and analyzing accounting for partnerships and corporations. Time is spent on managerial concepts including current and long-term assets and liabilities; payroll; investments; analysis of financial statements; introduction to cost accounting. Simulations are used extensively.

### RS Into to Pers. Financial Mgmt.

**Grades 11-12**

**Course #314**

**0.5 credit**

This course is designed around three concepts- money management, financial impacts, and communication- so that students are able to apply and defend responsible money management skills, evaluate the impact of various financial decisions, and convey a thorough and precise message about financial topics. These topics include budgeting, banking and money, credit, taxes, investing, insurance, post-high school education, and careers.

*Accounting I & II and Intro to Personal Financial Mgmt can be used as a math-embedded course in the senior year.*



# CONSTRUCTION & MANUFACTURING TECHNOLOGY

## COURSE OFFERINGS

### Wood Engineering & Mfg. I

Grades 9-12

Course #1415

0.5 credit

This course is an introduction to manufacturing technology using wood as a production medium. Students will learn how to read technical drawings, use layout and hand tools, safely set up and operate power equipment. No experience necessary, this foundation level class is designed for students to become comfortable with a variety of power tools and construction techniques that will come together in a variety of projects to take home and use.



### Architectural Applications

Grades 9-12

Course #1417

0.5 credit

This course is an introduction to construction technology. Students will understand the processes, materials, systems, techniques and job opportunities in construction technology. Students will learn about blueprints, foundations, construction materials, and framing techniques. This course is designed for students with career interest in architecture, engineering or construction.

### Architectural Drafting & Drawing Grades 9-12

Course #1418

0.5 credit

This introductory course provides students with foundational skills in architectural drafting and drawing, focusing on the core techniques, tools, and concepts used in the architectural design process. Students will explore basic principles of scale, proportion, and perspective as they learn to create precise, scaled drawings. Through hands-on practice, students will develop skills in freehand sketching, technical drafting, and digital drawing applications. A variety of drawing projects will help students explore and appreciate 2-D and 3-D architectural design and drawing. This course counts as an ICT credit.

### Wood Engineering & Mfg. II

Grades 9-12

Course #1415

0.5 credit

This course will further develop the topics presented in Wood Engineering and Manufacturing I. Students will develop their understanding of additional power tools and learn advanced woodworking processes such as mosaic work and advanced joinery. All grades will be based on the cumulative success of the product.

*These classes do not count as an Art credit.*



# ENGLISH COURSE OFFERINGS

## FRESHMAN & SOPHOMORE COURSES

### English 9

### Grade 9

### English 10

### Grade 10

#### Course #400

#### 1 credit

#### Course #404

#### 1 credit

*All students must enroll in a full year English class each year of high school.*

*Open and honors levels are available.*

*Open level coursework meets the minimum competencies to prepare students for college and career success.*

This course emphasizes the development of skills in the areas of grammar, writing, reading comprehension, vocabulary, and a basic introduction to library-based research using MLA format and databases. English 9 is a skills-based curriculum that enables the development of effective communication skills, including writing and speaking, while it develops the student's ability to identify the inherent qualities of a good piece of literature, poetry, and non-fiction. This curriculum is driven by the following essential questions: *What essential skills do I need to succeed in high school? What are the qualities of a good piece of writing? How will the choices I make today affect me tomorrow?*

Grade 10 English builds on reading, writing, speaking, and listening skills developed in English 9. Emphasis will be placed on reading comprehension and expository writing based on the needs and progress of the individual student. Students will use the writing process steps of prewriting, drafting, peer editing, revising, and will give attention to sentence structure, paragraph unity and coherence, usage, and punctuation. Students will use selections from texts to develop literary analysis skills and to develop connections between literature and writing.

*The prerequisite for Honors coursework is a teacher recommendation.*

*Honors courses are designed for the self-directed learner with the consistent expectation of work completion outside of the classroom.*

### English 9 Honors

### Grade 9

### English 10 Honors

### Grade 10

#### Course #461

#### 1 credit

#### Course #462

#### 1 credit

This course is designed for independent, self-directed students who excelled in eighth grade language arts and have demonstrated proficient to advanced reading and writing skills. Students will read and learn to comprehend complex texts, many of these texts being the same as those read in the open level classes but experienced in greater depth. As they learn and apply literary terms, they will develop critical attitudes towards their reading, with an emphasis on analysis and interpretation. Students will read and write out of class for discussion and application in class.

This course is designed for independent, self-directed students who excelled in the ninth-grade language arts program (open or honors) and have demonstrated advanced reading and writing skills. Students will read and learn to comprehend many of the same texts as those read in the open level classes but experienced at greater depth. Students will apply close reading skills to analyze and interpret readings, both in class discussion and in writing – demonstrating a critical attitude and correctly using literary terms. Students will read and write outside of class for discussion and application in class. As with all English honors courses, this course is reading and writing intensive.



# ENGLISH COURSE OFFERINGS

## JUNIOR & SENIOR COURSES

*All students must enroll in a full year English class each year of high school. Open, Honors, and AP are available.*

*Open level coursework meets the minimum competencies to prepare students for college and career success.*

*The prerequisite for Honors coursework is a teacher recommendation.*

*AP and Running Start options are available for students interested in challenging themselves with college level coursework.*

### American Literature

**Grade 11**

**Course #426**

**1 credit**

This course is designed for students to continue refining their skills in reading, writing, speaking and the use of technologies as they examine common themes of discovery, exploration, freedom, independence and the human condition as viewed through the eyes of various American authors, poets and artists.

### English 12

**Grade 12**

**Course #473**

**1 credit**

Students in all English 12 courses will read, write and present ideas demonstrating maturity of thought. They will be able to document and defend a well-reasoned opinion and develop and express an original idea. Students can expect to have options that will stretch and challenge them to achieve, to prepare them for the college classroom or the world beyond high school.

### American Literature Honors

**Grade 11**

**Course #412**

**1 credit**

While this course covers the same themes as English 426, it is quickly paced and requires a high degree of independence and self-direction. It is designed to provide an understanding of the development of American culture and values through the analysis of literature. Ideas and concepts discovered in literature will be developed and interdisciplinary connections to themes in U.S. History will be made. As with all English honors courses, this course is reading and writing intensive.

### English 12 Honors

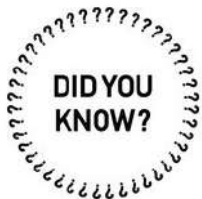
**Grade 12**

**Course #474**

**1 credit**

This course is designed for independent, self-directed students who have excelled in the language arts program (open or honors) in prior years and have demonstrated advanced reading and writing skills. Students will read and learn to comprehend many of the same texts as those read in the open level classes, but experienced in greater depth. As with all English honors courses, this course is reading and writing intensive.

- \* Reading can reduce stress up to 68%. Reading reduces stress more than listening to music, having a cup of tea, or taking a walk. (University of Minnesota.)
- \* If you read 20 minutes per day, in one year you will have read 1, 800, 000 words.
- \* According to several sources, in 2023, New Hampshire had the highest literacy rate in the country!





# ENGLISH COURSE OFFERINGS

## JUNIOR & SENIOR ADVANCED OPTIONS

### Why take AP coursework?

*"AP" on your high school transcript shows colleges you're motivated to succeed, and taking the exam demonstrates your commitment to tackle college level work.*

*~College Board website*

### AP Language & Composition

**Grades 11-12**

**Course #471**

**1 credit**

#### **Prerequisite: Teacher Recommendation**

Designed for students who have demonstrated excellence in English, the AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. Students are expected to take the May AP exam.

### AP English Literature & Composition

**Grades 11-12**

**Course #472**

**1 credit**

#### **Prerequisite: Teacher Recommendation**

This course is designed for seniors who have demonstrated excellence in English. The course will prepare students to take the AP English exam in Literature and Composition given by the College Board each year; students are expected to take the May exam. Beginning with a summer assignment, the reading consists of a comprehensive survey of works that will provide a solid base for analysis and discussion. Students will write weekly, developing their skill in close reading and identification of textual support. An appreciation and/or openness to poetry is an asset in this class. In-class writing under timed conditions will help prepare students to compete with other talented students in college literature and writing courses. Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.

**Running Start classes** are part of the "Early College at Your High School" Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a "C" or better in this course.

### RS College Composition

**Grade 12**

**Course #483**

**1 credit**

As the cornerstone of College Composition I, students will conduct intensive year-long research on a topic culminating in an appropriately formatted and documented 12-15 page persuasive research paper. The course emphasizes writing as a process that undergoes various stages toward completion and engages a variety of rhetorical approaches. This process-writing method gives students the tools that underlie effective academic writing and ensures adherence to the conventions of standard written English. Students seeking college credit will need to provide documentation of a minimum score of 500 on the Evidence Based Reading and Writing Section of the SAT assessment or a B average in previous English courses.

# ENGLISH COURSE OFFERINGS

## ELECTIVE COURSES

*English electives do not require a recommendation, though all are taught at the honors level.*



### Creative Writing Honors

**Grades 9-12**

#### **Course #476**

**0.5 credit**

This course is designed for students who want to improve and enrich their personal writing styles. The two major requirements are a love for writing and a willingness to share written works with the class. Students are required to maintain a daily writer's notebook/journal for both quarters. First quarter focuses on prose writing and producing one finished "work" a week. Second quarter focuses on the reading, writing, and analysis of poetry. At the end of the second quarter, each student must complete with a minimum of twelve original poems and accompanying visuals will produce a culminating poetry "book".

### Journalism Honors

**Grades 9-12**

#### **Course #478**

**0.5 credit**

This course is designed for students who want to improve their writing skills and participate in producing a school newspaper. They will explore the issues surrounding freedom of the press, controversy, what makes something newsworthy as well as the complexities and difficulties surrounding producing and publishing a newspaper. Students will investigate different types of writing in newspapers and magazines including articles, reviews, editorials, personal profiles and interviews. Students will participate in decision-making, editing, layout and formatting of two to four student newspapers.

### Women's Perspectives Honors

**Grades 10-12**

#### **Course #479**

**0.5 credit**

This course explores the contributions of the many excellent women writers, artists, and thinkers of our time. It emphasizes physical, emotional, and intellectual equality of the sexes. Selected literature will be studied through a historical feminist/thematic approach. Students will examine the unique needs, expectations, struggles, choices, and roles of women in America and in the rest of the world, today and throughout history, through a variety of contexts. Novels, film, essays, music, art, magazines, and newspapers will all be used to raise questions about the female perspective. The following literature may also be examined: Novels: *Reviving Ophelia*, *The Awakening*, *Snow Flower and the Secret Fan*, *The Handmaid's Tale*, *The Color Purple*, *Fried Green Tomatoes*; Short stories by: Willa Cather, Kate Chopin, Charlotte Perkins Gilman, and many more.

*English electives are not in place of required grade level English options and should NOT be used as credit recovery.*



*Electives are a way to show your personality and interests to a school. College admissions officers will be looking at what subjects you choose for electives and what grades you get in those courses. ~ Prep Scholar*



# FAMILY & CONSUMER SCIENCE

## COURSE OFFERINGS

### Culinary Skills & Procedures

Grades 9-12

Course #507

0.5 credit

This course offers students the opportunity to learn skills in the following topics. Food safety and handling, sanitation, basic preparation using whole foods, food purchasing and planning, recipe comprehension and menu design. Students will take part in an in-class cooking competition where they will build a menu, order the food, and prepare a multi-course meal using the skills they have learned throughout the semester.

### Creative Foods

Grades 9-12

Course #504

0.5 credit

**Prerequisite:** Culinary Skills & Procedures

This course expands on the skills developed in Culinary Skills & Procedures. Topics such as; cost analysis, career readiness, marketing, ingredient amount manipulation, and the investigation of nutritional values across many recipes. Students learn advanced techniques in food preparation and handling and start to create more complex meals. Students take part in an in-class cooking competition where they will build a menu, order the food, and prepare a multi-course meal using the skills they have learned throughout both Family & Consumer Sciences classes.

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## HEALTH & PHYSICAL EDUCATION

### COURSE OFFERINGS

*Most students take PE I in the freshman year!*

*All PE classes are graded on participation.*

*Students who are unable to participate for more than 3 weeks will be asked to withdraw from the course.*



### Physical Education I

Grades 9-12

Course #1000

0.5 credit

All students are required to pass two semesters of physical education to graduate. PE must be taken for a full semester at a time. Students will learn physical fitness interests and activities that are wellness based and can be pursued after students leave high school.

### Health

Grades 10

Course #600

0.5 credit

This course provides factual health information and opportunities to understand the interrelationships of personal choices, peer pressure, identity, disease and injury prevention/treatment and holistic health. The course equips students to live healthy lives and to advocate healthy behavior in their communities. The information and skills emphasized in this course are intended to empower students – both for their own sakes and as advocates within their families, peer groups and communities. Their knowledge secures their own health and provides them authority in addressing health concerns, and their skills make them assets in their communities. As part of the curriculum, students will have the opportunity to earn their CPR and First Aid Certification through hands on training and real-life scenarios.

# HEALTH & PHYSICAL EDUCATION

## COURSE OFFERINGS (continued)

### Integrated Wellbeing & Fitness      Grades 10-12

**Course #1008**      **1 credit**

**Prerequisite:** Physical Education I

**0.5 credit Health/0.5 credit Physical Education**

This course provides students with a hands-on learning experience about personal wellbeing and the importance of maintaining an active and healthy lifestyle. Through a year-long experience that goes from the classroom to the gymnasium/fitness center/outdoors, students will have the opportunity to earn both Health and Physical Education credit in a program designed to promote a healthier daily routine and keep students active for the full school year.

### Net Games      Grades 10-12

**Course #1010**      **0.5 credit**

**Prerequisite:** Physical Education I

This course will provide students the opportunity to focus on racquet and net games. Students will further their knowledge of each sport/game by incorporating rules and strategies. Their skills will improve through drills and game play. Examples of sports/games to be integrated into the course: tennis, badminton, volleyball, and pickleball.

### Alternative PE      Grades 9-12

**Directed Study**      **0.5 credit**

Students who engage in an activity outside of school, such as dance, equestrian, a team sport, etc. may opt to complete this hybrid course that combines an online curriculum with their personal interest and physical activity. Student may use participation in school sponsored athletics to meet the active component of this course. This course does not replace Physical Education I.

### Walking for Wellness      Grades 10-12

**Course # 1009**      **0.5 credit**

**Prerequisite:** Physical Education I

“Walking for Wellness” is a holistic program designed to enhance physical health, mental well-being, and overall quality of life through the practice of mindful walking. This course combines the benefits of regular physical activity with mindfulness techniques to create a balanced and enriching experience. Students will participate in pre and post fitness assessments, set personal goals, and maintain individual exercise logs and journals. Students should expect to walk outdoors under most conditions.

### Fitness & Conditioning      Grades 10-12

**Course # 1005**      **0.5 credit**

**Prerequisite:** One Credit of Physical Education

This course is designed for students who have completed their physical education requirement and who would like to develop their own individualized fitness program addressing the different components of physical fitness. The students will learn strategies for lifetime fitness.

### PE Activities      Grades 10-12

**Course #1006**      **0.5 credit**

**Prerequisite:** One Credit in Physical Education

This course is designed for students who have completed their physical education requirement and who would like to learn and participate in a variety of individual and group lifetime fitness activities.

*According to the National Institute of Health, globally, 80% of teenagers are insufficiently active.*





# HEALTH & PHYSICAL EDUCATION

## COURSE OFFERINGS (continued)

### RUNNING START COURSES

**Running Start classes** are part of the "Early College at Your High School" Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a "C" or better in this course.

#### RS Essentials of Exercise Science

**Grades 10-12**

**Course # 1011**

**0.5 credit**

**Prerequisite:** Physical Education I

An introduction to core sciences tailored to being a fitness professional: human anatomy, exercise physiology, applied kinesiology, nutrition, and physiology of training.

#### RS Nutrition for Health Fitness Professionals

**Grades 10-12**

**Course # 1012**

**0.5 credit**

**Prerequisite:** Physical Education I

This course will provide a background in general and exercise nutrition, energy balance, and weight management concepts while emphasizing the practical information to give healthy lifestyle choices.

## MANCHESTER SCHOOL OF TECHNOLOGY

The Manchester School of Technology prepares students with entry-level job skills and requires consistent attendance and a serious two-year commitment.

Some MST students attend college and/or apprenticeship programs after graduation.

Programs are open to sophomores on a space available basis. This requires careful planning and may require that graduation requirements are met in a different sequence than typically recommended.

**Automotive Technology**

**Fire Science\*\***

**Aviation Manufacturing**

**EMT\*\***

**Business Studies**

**Game Design/Graphics**

**Careers in Education**

**HVAC**

**Collision Repair**

**Health Professions**

**Cosmetology\***

**Landscape/Horticulture Construction**

**Culinary Arts**

**Manufacturing Technology**

**Criminal Justice/Law**

**Residential Carpentry**

**Design Communication**

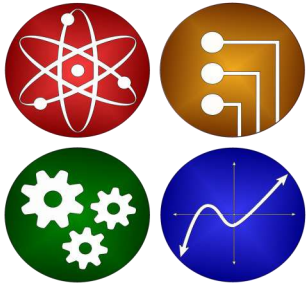
**Residential Plumbing**

**Electrical Technology**

**Video/Digital Media Production**

\*A 3-year Cosmetology program is available to sophomores who can be flexible in their plan to meet graduation requirements. This may require completing coursework outside of the school day. Interested freshman should develop a plan with their counselor prior to completing the MST application for sophomore year.

\*\*Firefighting I/EMT Basics are course options available to seniors who are able to commit to a double block at MST and still complete graduation requirements. Interested juniors should develop a plan with their counselor prior to completing the MST application for senior year.



*Algebra I is a prerequisite for Geometry and Algebra II. If a student is not successful in Algebra I, it is imperative that credit recovery occur prior to the start of the following school year.*



*According to the Department of Labor, math is important in a variety of careers, including business, finance, construction, and science.*

## MATH COURSE OFFERINGS

### Integrated STEM

**Grade 9**

**Course # 1153**

**1 credit**

This course is designed to connect math and science skills and better prepare students for success in both Algebra and Physical Science during sophomore year. Students will earn 0.5 credit in math and 0.5 credit in science with successful completion of this course.

### Algebra I

**Grade 9**

**Course #701**

**1 credit**

This is an entry-level mathematics course. Students will develop problem-solving and mathematical reasoning skills numerically, graphically, and analytically through solving, graphing, and applying mathematical models including linear, literal, absolute value, exponential, quadratic, and polynomial. Student exploration, mathematical modeling, and technology will be emphasized in achieving these outcomes. Dynamic web applications and graphing calculator technology will be an integral part of instruction.

### Geometry

**Grades 9-11**

**Course #711**

**1 credit**

#### **Prerequisite: Completion of Algebra I**

This course assumes competency in basic algebra. Students use a deductive, proof-based approach to investigate geometric shapes, develop spatial sense, and explore basic trigonometry. Students will learn about geometric properties and relationships through investigation and inquiry. The following will be studied: inductive and deductive reasoning, geometric constructions, properties of geometric figures, transformations, congruence and similarity, properties of parallel lines, properties of right triangles, circles, coordinate geometry, and introductory trigonometry. Dynamic geometry computer applications will be used.

### Geometry Honors

**Grades 9-11**

**Course #716**

**1 credit**

#### **Prerequisite: Completion of Algebra I and teacher recommendation**

This course is a rigorous, fast-paced, in-depth geometry course that requires a strong foundation in algebra. Students use a deductive, proof-based approach to investigate geometric shapes, develop spatial sense, explore basic trigonometry. The following will be studied: inductive and deductive reasoning, geometric constructions, properties of geometric figures, transformations, congruence and similarity, properties of parallel lines, properties of right triangles, circles, coordinate geometry, and introductory trigonometry. Dynamic computer applications will be used.

# MATH COURSE OFFERINGS (continued)

*Access to TI-83 or 84 graphing calculators is required for these courses. A classroom set is available for student use, and students can utilize the DESMOS graphing calculator web application at home.*



*A student interested in pursuing a STEM major in college may want to invest in one of the TI models for personal use.*



## Algebra II

**Grades 10-12**

**Course # 710**

**1 credit**

**Prerequisite:** Completion of Algebra I

This course extends on the concepts of Algebra I. Students develop problem-solving techniques algebraically, graphically, and analytically; model data to predict real-world outcomes; and use the language of mathematics to express ideas precisely. Topics will include families of graphs and their characteristics, functional operations and their graphs, including quadratic, polynomial, radical, logarithmic, and rational functions, polynomial operations, factoring, complex numbers, radicals, exponential properties, and operations with rational expressions and equations.

## Algebra II Honors

**Grades 9-12**

**Course #705**

**1 credit**

**Prerequisite:** Completion of Algebra I and teacher recommendation

This is a rigorous, fast-paced, in-depth course for students who have previously excelled in mathematics. Students will develop problem-solving techniques algebraically, graphically, and analytically; model data to predict real-world outcomes; and use the language of mathematics to express ideas precisely. Topics of study include families of graphs and their characteristics, functional operations and their graphs, including quadratic, polynomial, radical, logarithmic, and rational functions, polynomial operations, factoring, complex numbers, radicals, exponential properties, and operations with rational expressions and equations.

## Pre-Calculus

**Grades 10-12**

**Course # 721**

**1 credit**

**Prerequisite:** Completion of Algebra II

This course is an advanced-level mathematics elective. Topics include rational expressions, circles, families of functions and their behaviors, including linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions as well as examining units algebraically and graphically.

## Pre-Calculus Honors

**Grades 10-12**

**Course # 717**

**1 credit**

**Prerequisite:** Completion of Algebra II and teacher recommendation

This is an advanced-level mathematics course designed for the student who intends to take calculus as a high school student or college freshman. Topics include rational expressions, circles, families of functions and their behaviors, including linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions as well as examining units algebraically and graphically.

# MATH COURSE OFFERINGS (continued)

*New Hampshire State minimum graduation requirements articulate that students must enroll in a math course every year of high school.*



*In the senior year, a student may opt for a math-embedded course to fulfill the state requirement.*

*It is recommended that students planning to enroll in college take a math course rather than a math-embedded option.*

## Probability & Statistics

Course #732

Grades 11-12

1 credit

**Prerequisite:** Completion of Algebra II

This is an upper-level course designed as an introduction to the principles of probability and statistical inference. Topics include data, indices of central tendency and dispersion, frequency distributions, experimental and theoretical probability, design of experiments and hypothesis testing, inferences from two samples (T-Tests), correlation and regression, scatter plots, and chi-square tests.

## Probability & Statistics Honors

Course #736

Grades 11-12

1 credit

**Prerequisite:** Completion of Algebra II and teacher recommendation

This is a rigorous, fast-paced, in-depth math course for students who have excelled in the study of mathematics. As an upper-level course, it is designed to be an introduction to the principles of probability and statistical inference. Topics include data, indices of central tendency and dispersion, frequency distributions, experimental and theoretical probability, design of experiments and hypothesis testing, inferences from two samples (T-Tests), correlation and regression, scatter plots, and chi-square tests.

## Advanced Topics in Math

Course #719

Grade 12

1 credit

**Prerequisite:** Completion of Algebra I

Advanced topics will offer students a chance to look at how mathematics interacts with world around them. They will learn to be more rational thinkers through: Logic, Probability Theory, Statistical Theory, and Game Theory. Student will also learn about loans, lending, investing, credit cards, big purchases and constructing a budget. After completing this unit students will have the knowledge of how to live a financially stable life and have a well-funded retirement. The remainder of the course will be spent exploring a variety of advanced mathematical concepts including: Graph Theory and Voting Theory.

# MATH COURSE OFFERINGS (continued)

## ADVANCED PLACEMENT COURSES

### AP Statistics

Grades 11-12

Course # 725

1 Credit

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

**Prerequisite:** Algebra II with an average of B or better

This course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. Students will be introduced to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in AP Statistics: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing to build conceptual understanding.

### AP Calculus AB

Grade 11-12

Course # 733

1 credit

*Students are encouraged and expected to take the May exam.*

**Prerequisite:** Completion of Pre-Calculus Honors

AP Calculus AB is a college-level course that introduces students to the foundational concepts of differential and integral calculus. Key topics include limits, derivatives, integrals, and the Fundamental Theorem of Calculus, with a focus on understanding these concepts through multiple representations: analytical, graphical, numerical, and verbal. Students will apply calculus principles to solve real-world problems, such as optimizing systems, analyzing motion, and modeling change, fostering critical thinking and problem-solving skills.

### AP Calculus BC

Grade 12

Course # 734

1 Credit

**Prerequisite:** Completion of AP Calculus AB

AP Calculus BC is a rigorous course for students who have completed AP Calculus AB. It includes extensions to AB topics that develop the students' understanding of the concepts of calculus; providing experience with its methods and applications; emphasizing a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally; while stressing the importance of connections among these representations. BC Calculus offers substantial preparation for success in future mathematical courses at the post-secondary level. The content consists of analysis of graphs, limits of functions, asymptotic and unbounded behavior, continuity, parametric, polar and vector functions, the concept of the derivative, derivative as a point, derivative as a function, second derivatives, application of derivatives, computation of derivatives, interpretation of integrals, application of integrals, fundamental theorem of calculus, techniques of antidifferentiation, applications of antidifferentiation, numerical approximations of definite integrals, polynomial approximations and series, series of constants, and Taylor series.





# MUSIC AND PERFORMING ARTS

## COURSE OFFERINGS

These are performance based classes with several evening commitments required throughout the year.  
Band, Chorus, and String Orchestra can be repeated for credit.

<u>Band</u>	<u>Grade 9-12</u>	<u>Chorus</u>	<u>Grades 9-12</u>	<u>String Orchestra</u>	<u>Grades 9-12</u>
<b>Course #913</b>	<b>1 credit</b>	<b>Course #909</b>	<b>1 credit</b>	<b>Course #912</b>	<b>1 credit</b>
This course will use the study of contemporary literature for wind ensembles to expand student's technical abilities on their respective instruments within a performance ensemble. While any student may join Band, previous instrumental experience is preferred.		This course will emphasize music fundamentals, including vocal technique, solfeggio, basic music theory, and performance techniques. Participation in area festivals is encouraged. No previous singing experience is required.		This course will use the study of a wide range of music literature for string orchestra to expand student's technical abilities on their respective instruments within a performance ensemble. While any student may join String Orchestra, previous instrumental experience is preferred.	

## MUSIC HONORS ENSEMBLES

Students interested in advanced performance may audition for the opportunity to participate in a Honors ensemble. These ensembles are scheduled outside of the school day and carry commitments to participate in rehearsals, performances and auditions/evaluations above and beyond those scheduled for Band, Chorus and String Orchestra. Participation in an Honors ensemble will make the student eligible for a value add to the GPA of the performance-based class the student is enrolled in. This will appear on student transcripts as an honors section of the enrolled course. Current offerings include Full Orchestra, Jazz Band, and Select Choir. Ensemble offerings are subject to change depending upon interest and enrollment.



*Students interested in an Honors ensemble must audition for the opportunity and participate in additional commitments to be eligible to receive the honors value add to the GPA.*

# MUSIC AND PERFORMING ARTS

## COURSE OFFERINGS (continued)

### Electronic Music/Piano Lab

**Grades 9-12**

**Course # 900**

**0.5 credit**

#### **Satisfies the ICT requirement**

This course explores making and manipulating music using a MIDI keyboard, synthesizers, and sequencing software. Students learn basic music theory, repertoire and recording techniques. Hands-on work and projects are emphasized. Individuals may explore any or all of the course content areas in depth according to their interest. Previous keyboard experience or some musical background is helpful.

### Audio Production

**Grades 9-12**

**Course #911**

**0.5 credit**

#### **Satisfies the ICT requirement**

#### **Prerequisite: Completion of another music course**

Students learn production and recording techniques that include hands-on applications in sound technology and enables recording of their own music or that of other live performers. The knowledge base developed prepares them for careers in audio production—either as an introduction to college programs in sound recording, or through direct entry to the workforce as a technician.

### Guitar Lab

**Grades 9-12**

**Course # 905**

**0.5 credit**

This course will combine group instruction to teach theory, technique, care, and maintenance of the instrument. Many musical styles will be studied, including rock, folk, and classical. This course also satisfies the fine arts requirement. **Note:** Students are encouraged to provide their own instruments, if unable to, please contact the music teacher or the administrative staff.

### 20th Century Pop Music

**Grades 9-12**

**Course #907**

**0.5 credit**

This course is designed to explore contemporary music. It is a retrospective on the birth and evolution of “Rock ‘n’ Roll” that begins with the early American art forms, Ragtime and Blues. This course charts movements from their birth, with emphasis upon the artists who may not be as well known, yet inspired others and eventually changed popular music. The class focuses on the relationship between popular music and social issues of the time.

*All courses on this page count as an art credit.*

### Music Theory Honors

**Grades 9-12**

**Course #**

**0.5 credit**

#### **Prerequisite: Completion of another music course and teacher recommendation**

This course is designed for the advanced music student with a core understanding of music fundamentals. Students will learn reading notes on the staff in treble and bass clefs, reading rhythmic notation; reading and understanding terminology for tempo, dynamics, and style; chord symbols, chord inversions, and their realization, scales and triads; major and minor keys and their signatures; and the rudiments of composition.



# MUSIC AND PERFORMING ARTS

## COURSE OFFERINGS (continued)

### Introduction to Dance

**Grades 9-12**

**Course # 965**

**0.5 credit**

Intro to Dance is a technique class designed for the beginning to intermediate mover. This course introduces movement concepts and dance forms including ballet, modern, contemporary, jazz, hip-hop, social dance, African and others. Students work on proper alignment and technique while gaining a basic understanding of how dancers use time and space. In addition, students will study a major dance piece and write an analysis of the choreography and its meaning. As dance is a means toward physical wellness, students will also consider nutrition and safety by doing a self-analysis of their own habits of wellness. Participation in periodic public performance is required.

### Technical Production

**Grades 9-12**

**Course # 467**

**0.5 credit**

This course is guided by the NH Frameworks for Art: Theatre. Using the textbook, Theatre: Art in Action, students will explore main areas of theatre production. Each semester will feature written work with hands-on projects as well as performance of a student-designed production. The intent is to give students a foundation to build on with further coursework or stage work. This course meets the fine art requirement. Technical theatre elements studied will include set, props, light, sound, and costume. Students will be expected to analyze scripts, act scenes, and create theatre designs.



### Movement and Dance Company

**Grades 9-12**

**Course #966**

**1 credit**

This is a performance class designed for intermediate to advanced dancers committed to developing dance technique, understanding of choreographic principles, and performance quality. Performance opportunities include: the "Children's Nutcracker" (mandatory), the GHS Music Department Musical Theater production, and the Spring Dance Gala (mandatory). Additional performance opportunities including master classes, workshops, and guest artists occur throughout the course to provide real-life experiences and differing dance styles for students. Through this experience, students will prepare for collegiate and professional experiences while enjoying their art. May be repeated for credit.

### Acting & Directing

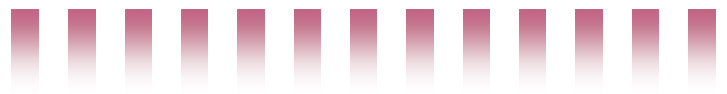
**Grades 9-12**

**Course # 468**

**0.5 credit**

Like "Technical Production", this course is also guided by the NH Frameworks for Art: Theatre. Using the textbook, Theatre: Art in Action, students will explore main areas of theatre production. Each semester will feature written work with hands-on projects as well as performance of a student-designed production. The intent is to give students a foundation to build on with further coursework or stage work. This course meets the fine art requirement. To study acting, students will do character, movement and voice exercises. For directing experience, students will look into the history of theatre, as well as stage productions with distinctive design concepts.

*These courses will fulfill the art graduation requirement.*





# SCIENCE COURSE OFFERINGS

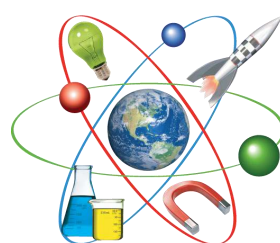
## Integrated STEM

Grade 9

Course #1153

1 credit

This course is designed to connect math and science skills and better prepare students for success in both Algebra and Physical Science during sophomore year. Students will earn 0.5 credit in elective math and 0.5 credit in elective science with successful completion of this course.



*Physical Science and Biology are graduation requirements.*

## Physical Science

Grades 9-10

Course #1100

1 credit

This course is an introduction to the fundamental concepts of physical science with an emphasis on everyday application of physical science laws. Students will investigate force and work, and processes of science, logical thinking, and problem solving through application of the scientific method in in-class experiments.

## Physical Science Honors

Grade 9

Course #1131

1 credit

**Prerequisite:** Algebra I

This course treats the same fundamental concepts and topics as 1100 Physical Science with greater emphasis on scientific inquiry and mathematical problem solving. Students will investigate, describe, predict and interpret physical science phenomena through research, experimentation, mathematical modeling, and lab reporting. Students should expect to design, perform and report on their own experiments to test their own hypotheses. Independence and well-developed skills in Algebra I are recommended.

## Biology

Grade 10-11

Course #1107

1 credit

This is an introduction to several major areas of biological sciences. This course includes research, critical thinking skills, and scientific inquiry. Topics include cellular biology, genetics, ecology, energetics, biodiversity and evolution. Experiments and lab reports, journals, projects, and presentations are expectations for this course.

*Students who opt for Biology in the freshman year will take both Physics and Chemistry to fulfill the graduation requirement of Physical Science.*

## Biology Honors

Grades 9-10

Course #1132

1 credit

This rigorous course treats the fundamental concepts and topics as those in 1107 Biology with an emphasis on research, critical thinking skills, and scientific inquiry. Topics include cellular biology, genetics, ecology, energetics, biodiversity, and evolution. This inquiry-based class emphasizes advanced knowledge of the principles and practice of the scientific method including research, experimentation, mathematical modeling, statistics, and lab reporting. Students should expect to design, perform, and report on their own experiments to test their own hypotheses. This course is designed for independent, self motivated students with advanced reading and writing skills on an advanced science path.

## SCIENCE COURSE OFFERINGS (continued)

*Students who opt for Biology in the freshman year will take both Physics and Chemistry to fulfill the graduation requirement of Physical Science.*

### Chemistry

**Grades 10-12**

**Course #1116**

**1 credit**

**Prerequisite:** Algebra II concurrently

This course is designed to provide the student with a fundamental grounding in the concepts of atomic and molecular structure and behavior. Successful students will understand the following: gas laws; conservation of energy/matter; types of chemical reactions; chemical symbols, notation and nomenclature; and the relationship of the behavior of elements to the periodic table. Laboratory sessions will be an integral part of this course.

*Students interested in AP Biology or AP Chemistry should take Chemistry Honors!*

### Chemistry Honors

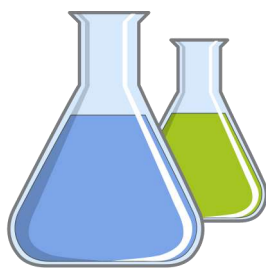
**Grades 10-12**

**Course # 1150**

**1 credit**

**Prerequisites:** Algebra II or Algebra II concurrently and teacher recommendation.

This course is designed to provide students possessing higher-level math skills with an in-depth theoretical and physical analysis of the fundamental concepts of chemistry. Successful students will understand the following: gas laws; conservation of energy/matter; the mole; the theory and structure of the atom to the subatomic level; electron configuration notation; and the relationship of the behavior of elements to the periodic table. Laboratory sessions, where students are expected to keep a laboratory notebook will be an integral part of this course. This course is the recommended preparation for students interested in pursuing AP Chemistry and/or Biology.



*AP Physics 1 & II are also options for completing part of the Physical Science graduation requirement.*

### Physics Honors

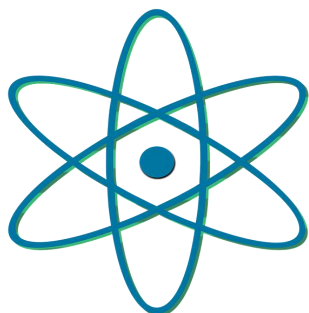
**Grades 10-12**

**Course #1151**

**1 credit**

**Prerequisite:** Algebra II

This course is recommended for students planning to study math, science or engineering in college. It includes the study of motion, forces, energy, momentum, waves light, sound, electricity and magnetism. Quantum theory and relativity will be discussed as time permits. Solving physics problems in this course will require good math skills, as students must be able to manipulate equations and utilize skills from algebra, trigonometry and analysis. Lab and project work support and extend the class work.



# SCIENCE COURSE OFFERINGS (continued)

## Elective Courses

### Earth Science

**Grades 9-12**

#### **Course #1133**

**0.5 credit**

This course is an introduction to general principles of Earth Science and includes laboratory and field study of the following topics: the atmosphere, climate and weather; environmental change; earth's composition and factors and processes that continuously change the earth through time; fossils and geologic time.

### Earth Science Honors

**Grades 9-12**

#### **Course #1136**

**0.5 credit**

This is an introduction to the same principles and concepts as Earth Science with an emphasis on research, mathematical modeling, and scientific inquiry. It includes laboratory and field study of the following topics: the atmosphere, climate and weather; environmental change; earth's composition and factors and processes that continuously change the earth through time; fossils and geologic time.

### Space Science

**Grades 9-12**

#### **Course #1119**

**0.5 credit**

This course is designed to show integration and applications of physics, chemistry, technology, and biological sciences in a historical and astronomical context. This course will include the following topics: historical perspective; cosmic landscape-planets, sun, stars, galaxies; backyard astronomy; instrumentation; exploration; and cosmology.

### Space Science Honors

**Grades 9-12**

#### **Course #1137**

**0.5 credit**

This course addresses the same principles and concepts as Space Science with greater emphasis on research, critical thinking, and mathematical modeling. It is designed to show integration and applications of physics, chemistry, technology, and biological sciences in a historical and astronomical context. This course includes the following topics: historical perspective; cosmic landscape-planets, sun, stars, galaxies; backyard astronomy; instrumentation; exploration; and cosmology.

### Lab and Field Studies

**Grades 10-12**

#### **Course #1121**

**0.5 credit**

This is a hands-on science course designed for outdoor minded students. It covers the topics of Sustainable Farming, Landscaping, Agriculture, Field Studies, Watershed and Soil Ecology, Environmental Science, Weather and Wildlife. Students will learn by outside field research, in class content and laboratory experiments. Students must be able to hike, perform physical work to take this course and must be willing to go outside in sometimes less than ideal weather. (Can be taken prior to RS Environmental Science but not with or after.)

### Human Biology

**Grades 10-12**

#### **Course # 1113**

**1 credit**

#### **Prerequisite: Biology**

This is an advanced biological science course designed to explore the human species in detail. Topics include human development, forensic science, immunology, body control systems, exercise physiology, human evolution, ecological impacts of human activity, epidemiology, population dynamics and nutrition. Students will apply science skills including suturing, PCR, micro pipetting, electrophoresis, and forensic analysis of physical and trace evidence. Recommended for students interested in exploring health science, forensic science, sports and exercise science, or with a general interest in a biological science. A variety of projects involving problem-solving skills, laboratory activities, dissections, and lectures are included.

# SCIENCE COURSE OFFERINGS (continued)

## RUNNING START ELECTIVE COURSES



*Running Start classes are part of the "Early College at Your High School" Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a "C" or better in this course.*

### RS Human Anatomy and Physiology

**Grades 11-12**

**Course #1114**

**1 credit**

**Prerequisite: Biology and Chemistry**

A rigorous college course in the Anatomy & Physiology of the human body that presents current in-depth information in the basic molecular and cell biology as well as human cells, tissues and organ systems. This course includes molecular biology which covers DNA and RNA structure and the formation of proteins, as well as basic cellular respiration. It also covers the integumentary, skeletal, muscular, nervous and sensory systems. Laboratory work augments lectures and includes the study of fresh and preserved specimens, microscopy, and human physiology.

### RS Geology

**Grades 11-12**

**Course #1138**

**0.5 credit**

This course is a practical approach to the study of geology whereby students will take a comprehensive view of the nature of geologic materials, structures, and processes of earth by identifying rocks and minerals, reading maps, understanding the use of maps, and the composition of the earth. Students will undertake an in-depth study of the physical earth, its structure, its composition, and the forces that affect it and investigate plate tectonics, earthquakes, volcanic activity, mountain building, planes and plateaus, and weathering forces. The course also includes the factors of soil genesis, physical properties of soils, the role of water, inorganic and organic nutrients, and aspects of soil management. The focus is on activities and laboratory investigations in which students use critical thinking and problem-solving skills in a practical manner within the framework of the scientific method. Lab experience and field trips are designed around rock and mineral identification, outcrops study, soil pit analysis and glacial geology. The course is taught at a college level pace.

### RS Environmental Science

**Grades 11-12**

**Course #1139**

**1 credit**

This rigorous course is an introduction to principles and concepts of the interrelations of the natural world. The course is predominantly field (outdoor studies), lab, and discussion based. It includes investigations in the following topics: current and historical environmental issues, climate, forestry, renewable energy, soil science, and wildlife, human, population, behavioral, conservation and aquatic ecology. Students will discuss, investigate, describe, predict and interpret the latter through inquiry, classroom and field research, observation, models, and discussion. This course is designed for independent, self-motivated students with an interest in the natural world.



# SCIENCE COURSE OFFERINGS (continued)

## AP ELECTIVE COURSES

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

*Students are encouraged and expected to take the May exam.*



*A student interested in advanced science coursework may benefit from purchasing a graphing calculator.*

### AP Biology

**Grades 11-12**

**Course # 1115**

**2 credits**

**Prerequisite:** Biology and Chemistry Honors

This course is a challenging, college-level biology elective designed for students interested in pursuing a career in the biological sciences. The curriculum is divided into eight comprehensive units that include the following: chemistry of life, cells, genes, mechanics of evolution, evolutionary history and biological diversity, and ecology. This is an intensive, two-period laboratory-based course that includes the mandatory 12 experiments necessary to successfully pass the AP exam.

### AP Chemistry

**Grades 11-12**

**Course #1118**

**2 credits**

**Prerequisite:** Algebra II and Chemistry Honors

This course is a college-level second year chemistry course designed for students interested in a higher-level chemistry class. Principle topics include bonding concepts, applications of aqueous equilibria, chemical kinetics, equilibrium, entropy, enthalpy, spontaneity of reactions, electrochemistry, and organic chemistry concepts. Advanced Placement level treatment of topics, and laboratory investigations is offered.

### AP Physics I

**Grades 10-12**

**Course #1147**

**1 credit**

**Prerequisite:** Algebra II with a B or better

This is a challenging course designed for students who are planning a career in science or engineering. It will be an in-depth exploration of Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves, sound and electric circuits, and fluid mechanics. Inquiry-based learning, data collection and analysis, and deep conceptual understanding of the concepts are central to being successful in this course. introductory college courses waived.

### AP Physics II

**Grades 11-12**

**Course #1148**

**1 credit**

**Prerequisite:** Algebra II

**Recommended:** Physics Honors or AP Physics I

This is a challenging course designed for students who are planning a career in science or engineering. It will be an in-depth exploration of quantum physics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. Inquiry-based learning, data collection and analysis, and deep conceptual understanding of the concepts are central to being successful in this course.



# SOCIAL STUDIES COURSE OFFERINGS

## WORLD STUDIES COURSES

All freshman must enroll in one of the following courses in world history, cultures or geography.

### Geography

**Grades 9-12**

**Course #1230**

**1 credit**

This course is to give students an understanding of the geography of the modern world. The emphasis will be on the interrelation of physical, cultural, and economic geography by using a regional approach to the world. The five themes of geography will be used to understand each of the different regions.



### World History

**Grades 9-12**

**Course #1200**

**1 credit**

This course will help students develop an appreciation of humankind's past and of its role in creating modern civilization. Following introductory units, the course will center on medieval times, the renaissance, the age of revolutions, including both political and industrial revolutions, and the modern era, including imperialism, world wars, and the development of the current international landscape. The overall goal of the course is to provide students with a solid understanding of the problems, changes, developments and conflicts that have shaped our modern world society so that they are better able to understand and respond to those that occur in their lifetimes.

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

### Geography Honors

**Grades 9-12**

**Course #1257**

**1 credit**

#### **Prerequisite: Teacher Recommendation**

While this course will follow the same essential topics of geography, students should expect more of an emphasis on analysis and interpretation of world events. activities. should expect more of an emphasis on analysis and interpretation of how geography impacts culture and world events. Additionally, students should expect to write critical essays, do background reading outside of class, and actively engage in class discussions and activities.

### World History Honors

**Grades 9-12**

**Course #1237**

**1 credit**

#### **Prerequisite: Teacher Recommendation**

While this course will follow the same essential questions and topics of World History, students should expect more of an emphasis on analysis and interpretation of historical events and primary source readings. Additionally, students should expect to write critical essays, be prepared to do background reading outside of class, be participatory in class discussions, and be able to apply outside readings to class activities.

*Students enrolled in AP Human Geography are encouraged and expected to take the May exam.*

### AP Human Geography

**Grades 9-12**

**Course #1256**

**1 credit**

#### **Prerequisite: Teacher Recommendation**

From the CollegeBoard: This is an introductory college-level human geography course. Students cultivate their understanding of human geography through data and geographic analyses as they explore topics like patterns and spatial organization, human impacts and interactions with their environment, and spatial processes and societal changes.

# SOCIAL STUDIES COURSE OFFERINGS

## CIVICS AND GOVERNMENT COURSES

All 10<sup>th</sup> grade students must take Civics, Civics Honors, or AP Government. New Hampshire RSA requires that all students must pass a local Civics assessment and the Citizenship test to satisfy minimum graduation requirements.



### Civics

Grade 10

Course #1239

0.5 credit

The goal of Civics is to educate students to understand the purpose, structure, and functions of government; the political process; the rule of law; and world affairs. Civics builds on a foundation of history, geography, and economics to teach students to become responsible, knowledgeable citizens, committed to participation in public affairs.

### Civics Honors

Grade 10

Course #1240

0.5 credit

**Prerequisite:** Teacher Recommendation

While this course will follow the same essential questions and topics of Civics, above, students should expect more of an emphasis on analysis and interpretation of historical and political events and primary source readings. The goal of Civics is to educate students to understand the purpose, structure, and functions of government; the political process; the rule of law; and world affairs. Civics builds on a foundation of history, geography, and economics to teach students to become responsible, knowledgeable citizens, committed to participation in public affairs.



*Students are encouraged and expected to take the May exam.*

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

### AP US Government and Politics

Grade 10

Course # 1246

1 credit

**Prerequisite:** Teacher Recommendation and an "A" in a World Studies course or a passing grade in AP Human Geography.

This course will focus on the Constitution; political beliefs and behaviors; political parties, interest groups, and mass media; the Congress, presidency, bureaucracy, and the federal courts; public policy; and civil rights and liberties. This course will prepare students for the responsibilities of citizenship including voting and positive participation in the local community; analyze the history and interpretations of the Constitution and the Bill of Rights; examine the roles, powers, and relationships between formal and informal institutions in the United States; recognize typical patterns of political processes and behavior and their consequences; and know important facts, concepts, and theories pertaining to U.S. government and politics.

# SOCIAL STUDIES COURSE OFFERINGS

## ECONOMICS COURSES

All students must take Economics, Economics Honors, or AP Economics to fulfill minimum graduation requirements. These courses can be taken in grades 10-12.

### Economics

Grades 10-12

#### Course #1241

0.5 credit



Economics is the study of the allocation and utilization of limited resources to meet society's unlimited needs and wants, including how goods and services are produced and distributed. Through economics, students examine the relationship between costs and benefits. They develop an understanding of basic economic concepts; economics in history; how economics affects and is affected by the individual; cycles in the economy; financial institutions and government; and international economics and trade. The goal of economic education is to prepare students to make effective decisions as consumers, producers, savers, investors, and as citizens.

### Economics Honors

Grades 10-12

#### Course #1242

0.5 credit

#### **Prerequisite: Teacher Recommendation**

While this course will follow the same essential questions and topics of Economics (1241), students should expect more of an emphasis on analysis and interpretation of primary source readings, graphs, and data. The goal of economic education is to prepare students to make effective decisions as consumers, producers, savers, investors, and as citizens.

### AP Economics: Microeconomics

Grades 10-12

#### Course #1255

1 credit

#### **Prerequisite: Teacher recommendation and an "A" in an honors level social studies course or a passing grade in an AP social studies course.**

From the CollegeBoard: AP Microeconomics is an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy.



*Students are encouraged and expected to take the May exam.*

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

# SOCIAL STUDIES COURSE OFFERINGS

## UNITED STATES HISTORY COURSES

All 11<sup>th</sup> grade students must take US History, US History Honors, or AP US History. New Hampshire RSA requires that all students must pass a local Civics assessment and the Citizenship test to satisfy minimum graduation requirements.



### US History

Grade 11

Course #1212

1 credit

This course focuses on the economic, political and social changes that have shaped America throughout its history. Students will conduct research, create presentations and craft reports focusing on different historical periods. They will also participate regularly in class discussions with an emphasis on various pivotal points in American History.

### US History Honors

Grade 11

Course #1216

1 credit

**Prerequisite:** Teacher Recommendation

This course is quickly paced and requires a high degree of independence and self-direction. While this course will follow the same essential questions and topics of US History, students should expect more of an emphasis on analysis and interpretation of historical events and primary source readings. Additionally, students should expect to write critical essays, do background reading outside of class, be participatory in class discussions, and be able to apply outside readings to class activities.

### AP US History

Grade 11

Course #1225

1 credit

**Prerequisite:** Teacher Recommendation and an "A" in Civics or a passing grade in an AP social studies course.

This course is designed for students who have demonstrated excellence in Social Studies. This quickly paced in depth study of American History begins in the 15<sup>th</sup> Century and ends with the 21<sup>st</sup> Century. Primary sources will be an integral part of the course. Students will write weekly, developing their skill in close reading and identification of textual support.

*Students are encouraged and expected to take the May exam.*

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*



# SOCIAL STUDIES COURSE OFFERINGS

## ELECTIVE COURSES

### Psychology

Grades 10-12

#### Course #1221

0.5 credit

This course studies the principles and applications of basic psychology. Beginning with the study of human development, students will consider the personality, learning, thinking, motivation and emotions, treating personality disturbances, social interaction, stress, careers and research in psychology. This course is recommended for those interested in behavioral science.

### Sociology

Grades 11-12

#### Course#1224

0.5 credit

This course studies the origin, development, organization, and the way people function in groups. Emphasis is placed on the tools and methods of sociological research, culture, socialization, social organization, social institutions and social change. Students study American social, economic, and political institutions and specific American social problems. This course is recommended for those interested in behavioral science.

### America Since 1945

Grades 11-12

#### Course #1231

**Prerequisite: US History for seniors, or a C or higher in Civics for entering juniors.**

This course examines a period of American life that is both recent and rich historically. What once known as “the postwar era” is now a period of more than half a century in which the United States has changed more rapidly and profoundly than during any other period in history. No single course could hope to provide a comprehensive picture of these complex and turbulent years. This course ioffers an introduction and framework for understanding the United States since 1945; and gives students an experience of exploring some aspects of those years for themselves – through readings, discussions, and perhaps most importantly through independent research and writing.

### RS Psychology

Grades 11-12

#### Course #1222

0.5 credit

This rigorous, college-level course is an introduction to various areas of psychology, including scientific investigation and prominent theories. Topics include motivation, emotions, personality, physiological foundations of behavior, psychological disorders and therapy, sensation and perception, learning, and human development. The course is designed for independent, self-motivated students .

### Sociology Honors

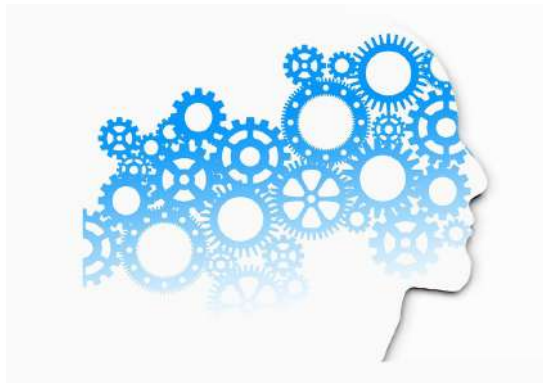
Grades 11-12

#### Course #1245

0.5 credit

This course studies the origin, development, organization, and function of people in collective behavior. Emphasis is placed on the tools and methods of sociological research, culture, socialization, social organizations, social institutions and social change. Students study American social, economic, and political institutions and specific American social problems. This course is recommended for those interested in behavioral science. Students will engage in research that includes analysis and synthesis of readings to produce evidence-based writing.

*Running Start classes are part of the “Early College at Your High School” Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a “C” or better in this course.*





# SOCIAL STUDIES COURSE OFFERINGS

## ELECTIVE COURSES

*Why take AP  
coursework?*

*AP students learn  
essential time  
management and  
study skills needed for  
college and career  
success.*

*~College Board website*

*Students who score 3  
and above (out of 5)  
may receive college  
credit or have  
introductory college  
courses waived.*



*Students are encouraged  
and expected to take the  
May exam.*

### Great Decisions Honors

**Grade 12**

**Course #1254**

**1 credit**

**Prerequisite:** Completion of US History Honors with a B or better

This course is intended to be a culminating experience for the advanced social studies student. Developed by the Foreign Policy Association in 1954, it is designed to encourage debate and discussion of the important global issues of our time; eight nationally studied topics are released each year. Students interested in expanding their knowledge of international relations, engaging in active discussion of crucial global issues, and applying the skills gained through core social studies courses in grades 9-11 should take this class.

### AP World History

**Grades 10-12**

**Course #1243**

**1 credit**

**Prerequisite:** Teacher Recommendation

Students will develop greater understanding of the evolution of global processes and contacts, and interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence.

### AP European History

**Grades 12**

**Course #1252**

**1 credit**

**Prerequisite:** An "A" in US History or a passing grade in AP US History and Teacher Recommendation

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of AP European History are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing.

# TECHNOLOGY EDUCATION COURSE OFFERINGS

## COMPUTER EDUCATION

### Intro to Computer Animation

#### & Game Design

Grades 9-12

Course #1429

0.5 credit

This entry-level course is designed to expose students to basic programming concepts through the use of 3D animations and interactive games. Students will learn concepts such as: object-oriented program design, block coding to include variables, arrays, procedures, control structures, events, and functions. Audio and image integration, storytelling, and gaming strategy will also be covered as student's create an animation project and interactive game project from design to completion.

### RS Intro to Programming (VB.net)

Grades 10-12

Course #1430

0.5 credit

**Prerequisite: Algebra I with a C or better**

This entry-level programming course introduces students to application development through the use of an integrated development environment. Students will work with variables, constants, data types, and expressions. Problem solving and decision-making are integrated as students also explore looping and multiple forms, using menus, common dialogs, procedures, functions and arrays, debugging, creating executable files, and distributing a Windows application. Concepts and methods of object-oriented programming and design, creating applications using a development cycle approach, and disciplined coding style are included.

*Running Start classes are part of the "Early College at Your High School" Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a "C" or better in this course.*

### Intro to Information Technology

Grades 9-10

Course #1435

0.5 credit

In this course students will learn how to setup and maintain a computer and home network by learning skills such as performing hardware and software upgrades, setting up home wireless, and installing external devices such as printers. Students will also be exposed to web design, basic programming, and game design as time allows.

*Students **must** have a current Internet Access Form on file to participate in these courses.*

### RS Intro to Programming (Python)

Grades 10-12

Course # 1451

0.5 credit

**Prerequisite: Algebra I with a C or better**

This fast-paced programming course introduces students to software development using Python. Coding syntax, algorithms, and problem-solving techniques are vital to becoming a successful programmer and will be thoroughly explored. Students will work with variables, data types, and expressions. Intermediate skills will be integrated as students explore looping, functions, arrays I/O, libraries, and debugging. Object orientated programming, SDLC, and coding best-practices are included to support distributable executable projects. This course can be used to help prepare students for the Python Institute's PCEP & PCAP Python Programming Certifications for entry-level and associate-level programmers.



*All computer courses satisfy the ICT graduation requirement.*

# TECHNOLOGY EDUCATION COURSE OFFERINGS (cont.)

## COMPUTER EDUCATION (continued)

*All computer courses satisfy the ICT graduation requirement.*



**Running Start classes** are part of the "Early College at Your High School" Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a "C" or better in this course.

### RS Web Design I

**Grades 10-12**

**Course #1440**

**0.5 credit**

This entry-level course introduces students to all aspects of website creation. Students will learn best practices of web design by evaluating existing webpages, and developing interactive webpages to work with a variety of devices including desktop, tablet, and mobile phones. Students will learn HTML and CSS as part of this course, with a brief introduction to JavaScript & JQuery.

### Web Design II Honors

**Grades 10-12**

**Course #1456**

**0.5 credit**

**Prerequisite: Web Design I**

This course builds on the skills acquired in Web Design I. Students continue to expand their knowledge of website creation learning concepts and techniques used by back-end web developers to deliver robust social media, e-commerce, and data-driven web applications. Students learn to set up their own web server, and will be learning both PHP and MySQL to store and retrieve server-side data.

### RS Intro to Computer Repair

**Grades 10-12**

**Course# 1442**

**1 credit**

**Prerequisite: Algebra I with a C or better**

This course will cover the fundamentals of computer hardware and software. Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Students will also be able to connect the computer to the internet and construct a wireless network to share resources. Additional topics covered include laptops, portable devices, networking, security, safety and environmental issues, troubleshooting, and communication skills. This course can be used to help prepare students for the CompTia A+ certification for pc technicians.

### RS Intro to Computer Networks

**Grades 10-12**

**Course # 1453**

**0.5 credit**

**Prerequisite: Algebra I with a C or better**

This course exposes students to general networking concepts such as routing, switching, wireless, security and other advanced technologies. Concepts are presented in the context of hands-on scenarios that students may encounter; from home and small offices, to more complex corporate models. This course can be used to help prepare students for the CompTia Network+ certification for network technicians.

# TECHNOLOGY EDUCATION COURSE OFFERINGS (cont.)

## STEM/PRE-ENGINEERING

*All courses in this area satisfy the ICT graduation requirement.*



Our mission is to give students an introduction into becoming practicing engineers who will become innovative problem solvers in industry, government, and academia using Science, Technology, Engineering & Mathematics.

### Introduction to CAD I

**Grades 9-12**

**Course #1436**

**0.5 credit**

CAD IS A MUST if you want to be an engineer, designer, like to build or have ideas you would like to physically produce, but lack the planning tools to accomplish such a task. CAD, Computer-Aided-Design is a computer planning tool used to generate 2D and 3D models used to produce objects in the real world to meet a desired need. In CAD I, you gain a basic understanding of Solidworks, an industry leading CAD software package, and learn how to use this tool to solve problems applying previous knowledge in STEM- Science, Technology, Engineering & Mathematics. Students will also gain a basic understanding of 3D Printers and Laser Cutting for producing physical models.

**Running Start classes** are part of the "Early College at Your High School" Program through the Community College System of New Hampshire. This program offers students the opportunity to earn college credit for earning a "C" or better in this course.

### RS Engineering and Manufacturing

**Grades 10-12**

**Course #1446**

**0.5 credit**

#### **Prerequisite: Intro to CAD I**

In Engineering & Manufacturing, we learn more advanced Solidworks tools & solve more complex design problems using STEM and the Design Process. Students are also introduced to CAM, Computer-Aided-Machining, using SolidCAM; adding another tool to their problem-solving tool box. Students will be assigned design problems and use the CNC tools, Laser Cutter and 3D Printers to physically produce & test their solutions. These projects will deal directly with many different disciplines of engineering, such as Mechanical, Civil, Electrical, Environmental, Manufacturing and Vehicle Engineering with a taste of Industrial Design.

### RS Introduction to Robotics

**Grades 10-12**

**Course # 1447**

**1 credit**



This is a lab-based course that uses a hands-on approach to introduce the basic concepts of robotics. No previous experience necessary, students will focus on the design, construction and programming of autonomous mobile robots using the latest technology, VEX Robotic Design System. We will work in groups using previous knowledge in STEM-Science, Technology, Engineering & Mathematics while using the Design Process to solve problems. Semester one focuses on design, construction and programming fundamentals. In semester 2, we use our skills gained to build and program custom robots to compete in a variety of games.



# TECHNOLOGY EDUCATION COURSE OFFERINGS (cont.)

## COMMUNICATION TECHNOLOGY

### Graphic Arts I

Grades 9-12

Course #1411

0.5 credit

Graphic Arts is designed to offer students an overview of programs and techniques used to efficiently and clearly communicate ideas. Problem solving and other basic skills are developed in the area of design, page layout, printing methods, computer image editing, and finishing. Students will become familiar with and work with both vector and bitmap images using the Adobe Illustrator® and Photoshop® programs. Multiple modalities are employed to accommodate different learning styles and educational needs through structured exercises, lecture, and demonstration. Assigned and individual projects reinforce and advance student learning. Career opportunities are explored.

### Graphic Arts II Honors

Grades 9-12

Course #1455

0.5 credit

**Prerequisite:** Graphic Arts I

This course is designed to build on the skills acquired in Graphic Arts I, students will develop individual and group projects emphasizing effective communication. Students will do assignments that will result in the generation of usable finished products such as T-shirts, business cards, and flyers, through the use of conventional printing and computer image editing techniques.

### Fundamentals of Digital Photography

Grades 9-12

Course #1449

0.5 credit

This course introduces students to digital photography and the use of digital cameras. It is a study of the camera, photographic composition, editing, retouching, and printing. Students will explore digital photography and computer enhancement using Adobe Photoshop Software. Course credit satisfies the ICT graduation requirement. Course requires a (DSLR) Digital SLR camera. The school will supply a limited amount of cameras upon request.

### Video Production

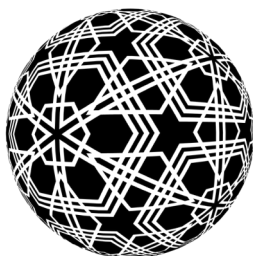
Grades 9-12

Course #XXXX

0.5 credit

This is a hands-on production course where students will learn digital editing, create several short video products, and complete a semester-long documentary project about a subject of their choosing. The process for production will include a written proposal, storyboard and script. Students will produce written reflections to analyze their completed work. Students will also be available as a technical resource to faculty, administration, and community.

*In order to access these courses students must have a current Adobe Permission form on file.*



*These communication courses satisfy the ICT graduation requirement.*





# TECHNOLOGY EDUCATION COURSE OFFERINGS (cont.)

## WELDING TECHNOLOGY

*Students must score a minimum of 90% on the safety exam to participate in this course.*

*These courses count as an Art credit.*



### Creative Welding

**Grades 9-12**

**Course #1425**

**0.5 credit**

This course is an introduction to basic welding skills and metal working techniques used in metal sculpture. This course covers instruction in safety procedures, history of welding, identification of metals, and the hot and cold working of steel. Students will work with shielded metal arc welding, oxyacetylene techniques, plasma arc cutting, weld design and finishing techniques. Technical skills will be emphasized through hands on instruction and practice. There will be opportunity for creative expression and practical application.

### Creative Welding II Honors

**Grades 9-12**

**Course #1454**

**0.5 credit**

**Prerequisite:** Creative Welding I

This course gives students the opportunity to further expand and explore their skills with metal as a medium. Advanced skills in shielded metal arc welding, oxyacetylene techniques, plasma arc cutting will be explored. Emphasis will be on the development of a related body of work demonstrating the student's personal vision.

## WORLD LANGUAGE COURSE OFFERINGS

*Level I languages are open to students in grades 9-11 and to seniors on a space-available basis .*

*A yearly, grade average of "C" or better is strongly recommended for any student who plans to continue to the next level of any World Language.*

### Latin I

**Grades 9-11**

**Course #1500**

**1 credit**

This course introduces students to the language and culture of Ancient Rome through a reading-based program about the adventures of a Roman family called the Cornelians. In addition, students learn about Roman history and daily life and Rome's lasting influence on western civilization.

### Latin II

**Grades 10-12**

**Course #1501**

**1 credit**

**Prerequisite:** Latin I

This course resumes the story of the Cornelian family in Rome as students require more vocabulary and understanding through their reading. Students will continue learning about the life, language and literature of the Romans and how their legacy is still around us today.

## WORLD LANGUAGE COURSE OFFERINGS (cont.)

*A yearly, grade average of "C" or better is strongly recommended for any student who plans to continue to the next level of any World Language.*



*Level I languages are open to students in grades 9-11 and to seniors on a space-available basis .*



### Latin III/IV Honors: The Roman Family

**Grades 11-12**

**Course #1546**

**1 credit**

**Prerequisite: Latin II**

In the first semester students read about key life events in the Cornelian family within the context of Roman society. For the second semester students will read from a selection of short novellas in Latin based on classical myths. This course alternates with course #1547 every other year.

### Latin III/IV Honors: Roman Pastimes

**Grades 11-12**

**Course #1547**

**1 credit**

**Prerequisite: Latin II**

In the first semester students read about popular pastimes in Roman life through the further adventures of the Cornelian family. The second semester students will read from a selection of short novellas in Latin based on classical myths and Roman history. This course alternates with course #1546 every other year.

### French I

**Grades 9-11**

**Course #1502**

**1 credit**

This course is designed to develop four language skills progressively: listening comprehension, speaking, reading comprehension, and writing. Students will develop an understanding of the culture and civilization of French speaking countries. Vocabulary and grammatical patterns are introduced through listening and speaking. The reading and writing skills are developed progressively. The daily language instruction is interwoven with varied enrichment materials and audio-visual aids.

### French II

**Grades 9-12**

**Course #1503**

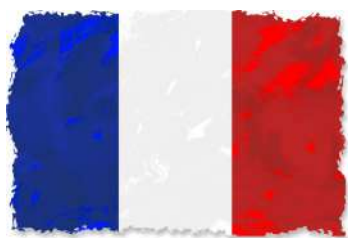
**1 credit**

**Prerequisite: French I**

This course is designed to continue the development of the four language skills: listening comprehension, speaking, writing and reading comprehension. It aims to develop sensitivity to a value system and behavior pattern other than the student's own. Continues the progressive development of a better pronunciation, intonation and fluency and student dialogues, aural-oral drills. Writing is expanded from writing sentences with grammatical accuracy to short guided paragraphs, composition and dialogues. Reading comprehension is expanded through a variety of graded cultural readings integrated in the text.

## WORLD LANGUAGE COURSE OFFERINGS (cont.)

*A yearly, grade average of "C" or better is strongly recommended for any student who plans to continue to the next level of any World Language.*



*Students are encouraged and expected to take the May exam.*

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

### French III Honors

**Grades 10-12**

**Course #1540**

**1 credit**

**Prerequisite:** French II

This course is designed to continue skill development, review the basic aspects of French grammar as well as provide an introduction to more complex structures. Culture and literature are studied through literary excerpts, magazine and newspaper articles, and selections on culture and language. Readings contain a wide variety of materials for study, discussions, composition and presentations. Students will research and present research on regions of the French speaking world.

### French IV Honors

**Grades 11-12**

**Course #1541**

**1 credit**

**Prerequisite:** French III Honors

This course is designed to increase proficiency in the language while introducing the student to a wide variety of literary and cultural experiences. Topics to be discussed are youth, women, family, social classes, etc. Grammar and literature are studied simultaneously with thematic vocabulary, linking the units together at the appropriate linguistic level. Students will complete one major research project in the spring on an aspect of French art, literature, drama, or film. Students will speak, listen, read, present, write, and edit in French.

### AP French Language & Culture

**Grade 12**

**Course #1533**

**1 credit**

**Prerequisite:** French IV Honors

AP French Language and Culture enables students to develop advanced proficiency in the language skills of listening, speaking, writing, and reading. The course will emphasize the use of the French language to improve the oral communication and help the students develop the ability to speak and understand the language in a variety of contexts. The course will engage the students to explore different cultures of the French speaking countries. The students will learn to use the three modes of Communication: Interpersonal, Interpretive and Presentational. They will be required to read articles and excerpts from French magazines, newspapers and literary texts. They will explore websites focusing on the Culture of French speaking countries. They will refine verbal and written language skills, apply language competencies beyond the school setting, and attain advanced proficiency. The six themes, based on the College Board's Curriculum Framework, will be the focus of teaching and learning through the entire year.

## WORLD LANGUAGE COURSE OFFERINGS (cont.)

## Spanish I

## Grades 9-11

## Course #1507

**1 credit**

This course is designed to develop the four basic skills of language acquisition: listening comprehension, speaking, reading comprehension, and writing. Vocabulary and grammatical patterns are introduced and reinforced through the use of thematic units. Each unit exposes students to different aspects of everyday Hispanic life to help students develop an awareness of cultural differences. A variety of authentic sources, including blogs, tweets, movie trailers, story excerpts, songs and interviews, help students connect to the language.

*Level I languages are open to students in grades 9-11 and to seniors on a space-available basis .*

**Spanish III**

## Grades 10-12

# Course #1509

**1 credit**

**Prerequisite:** Spanish II

In Spanish III the focus will be on furthering the student's understanding of the major concepts covered in previous Spanish classes as well as expanding vocabulary and knowledge of grammar. A variety of authentic sources, including blogs, tweets, movie trailers, articles, story excerpts, songs and interviews, help students connect to the language. Students will also continue to familiarize themselves with different perspectives of the culture of the Spanish-speaking world through experiences with its products and practices. Students continue to progress within the three modes of communicative competence: interacting with other speakers of Spanish, understanding oral and written messages in Spanish, and making oral and written presentations in Spanish. The use of Spanish in class will emphasize real-world communication throughout this college preparatory course.

*A yearly, grade average of "C" or better is strongly recommended for any student who plans to continue to the next level of any World Language.*

## Spanish II

## Grades 9-12

# Course #1508

**1 credit**

**Prerequisite: Spanish I**

This course is designed to continue developing the language acquisition skills by building upon the vocabulary and grammar introduced in Spanish I. Grammatical material becomes more complex, and along with vocabulary, is introduced through thematic units. Units are once again developed around everyday situations to further awareness and tolerance of cultural differences. A variety of authentic sources, including blogs, tweets, movie trailers, articles, story excerpts, songs and interviews, help students connect to the language. Continued exposure to the target language will enable students to negotiate meaning at a higher level.

## Spanish III Honors

## Grades 10-12

# Course #1537

**1 credit**

**Prerequisite: Spanish II and teacher recommendation**

In Spanish III Honors, students continue to develop their proficiency in the three modes of communicative competence: interacting with other speakers of Spanish, understanding oral and written messages in Spanish, and making oral and written presentations in Spanish. They begin to communicate using more complex structures in Spanish on a variety of topics, moving from concrete to more abstract concepts. They comprehend the main ideas of authentic materials that they read and hear, and are able to identify significant details when the topics are familiar. A variety of authentic sources, including blogs, tweets, movie trailers, articles, story excerpts, songs and interviews, help students connect to the language. Students will also continue to familiarize themselves with different perspectives of the culture of the Spanish-speaking world through experiences with its products and practices. The use of Spanish in class progresses throughout the year with the goal of using Spanish exclusively during semester two. This course is designed to prepare students looking to continue their study of Spanish in preparation to take Spanish IV and ultimately AP Spanish.



## WORLD LANGUAGE COURSE OFFERINGS (cont.)

### Spanish IV

Grades 11-12

Course #1537

1 credit

**Prerequisite:** Spanish III



In Spanish IV the focus will be on furthering the student's understanding of the major concepts covered in previous Spanish classes as well as expanding their vocabulary and knowledge of grammar. They begin to communicate using more complex structures in Spanish on a variety of topics. A variety of authentic sources, including blogs, tweets, movie trailers, articles, story excerpts, songs and interviews, help students connect to the language. Students will also continue to familiarize themselves with different perspectives of the culture of the Spanish-speaking world through experiences with its products and practices. Thematic units will incorporate real-world, practical applications. The use of Spanish in class will progress throughout the year with the goal of using Spanish exclusively during semester two.

### Spanish IV Honors

Grades 11-12

Course #1538

1 credit

**Prerequisite:** Spanish III Honors or teacher recommendation



This course develops integrated language skills and weaves language and culture together in a real-world context. Students will be engaged in a variety of authentic activities, examining texts-videos, articles, blogs, interviews and literature written for native Spanish-speakers. Both review and acquisition of new grammar and vocabulary will be done through varied spoken and written exercises that relate to each new theme. This course focuses on spoken fluency as well as listening and reading comprehension of the Spanish language. In addition, students will gain a deeper understanding of the cultures of Latin America. Spanish is used almost exclusively in the class as students develop the ability to discuss topics related to historical and contemporary events and issues. The course concentrates on developing higher level oral, written and grammar skills in preparation to take the AP Spanish Language and Culture Exam.

*Students are encouraged and expected to take the May exam.*

### AP Spanish

Grade 12

Course #1522

1 credit

**Prerequisite:** Spanish IV

*Students who score 3 and above (out of 5) may receive college credit or have introductory college courses waived.*

This course is designed for advanced students interested in working towards fluency; therefore the course is conducted primarily in Spanish. Course work combines readings in fiction and non-fiction from a wide variety of contemporary Latin American and Spanish sources. A review of language structures occurs within the discussion of readings and the analysis of visual and auditory input. The primary emphasis is on comprehension and overall communication in Spanish. The course will concentrate on developing higher level oral, written and grammar skills in preparation to take the AP Spanish Language and Culture Exam.



# WORLD LANGUAGE COURSE OFFERINGS (cont.)



## Italian Language & Culture

**Grades 11-12**

**Course #1527**

**1 credit**

**Prerequisite:** Successful completion (C or better) of Level III of any language

This course is designed to develop basic communication in the Italian language, while exposing students to the four basic skills of language acquisition: listening comprehension, speaking, reading comprehension, and writing. A variety of authentic sources, including blogs, tweets, movie trailers, articles, story excerpts, songs and interviews, help students connect to the language. Through the use of thematic units, students will develop an awareness of the rich history and culture of Italy.

## OTHER ELECTIVE COURSE OFFERINGS

### Directed Study

**Grades 9-12**

*Directed Study coursework does not count as a course for minimum enrollment requirements.*

**Required:** Mentor Agreement

**0.5 credit**

Students may choose to study an academic topic of interest in-depth through this Directed Study option. Under the guidance of a faculty mentor the student will develop a proposal, establish objectives, evaluation, and presentation methods. The student and the teacher may design a service-learning component as part of the curriculum. A demonstration of learning is required at completion. This course is graded pass/fail and not included in GPA. This course is for elective credit.

### Logic and Rhetoric

**Grade 11-12**

**Course #27**

**1 credit**



Taking lessons from philosophy, computer science, speech and debate, English, psychology, and mathematics, this course attempts to answer the question *How can we have the best thoughts and convince other people that they're worth listening to?* By studying the fundamentals of critical thinking, students will strengthen their reasoning and communication skills and identify logical inconsistencies in the media that surrounds them. Logic and Rhetoric serves to connect coursework across English, Social Studies, Math, and Tech departments. This course is graded as pass/fail.

### School to Career Internship

**Grade 12**

**Course #22**

**1 credit**

*Students must have a valid driver's license and a reliable vehicle to travel to work site 2-3 times weekly.*

School to Career Internship is a full year work-based exploration that offers seniors a real work experience in conjunction with academic classes. Students will work with a school-based mentor who will coordinate the academic focus, studying the components of all the aspects of the industry work experience. Students are expected to interview with the mentor prior to summer and begin the process of locating and securing a work site. Assistance may be provided to those in need. Career field choice should be relevant to a particular career pathway. These work experiences may or may not be paid positions and will depend on the individual situation.



## OTHER ELECTIVE COURSE OFFERINGS

*Both Yearbook Fall and Yearbook Spring will count as an ICT credit toward graduation.*



### Yearbook Fall

**Grades 10-12**

#### **Course #23**

**0.5 credit**

Students will complete the myriad of tasks to create a quality yearbook that reflects the pictorial history of the activities for the present school year. During the fall semester, students will complete the yearbook for the current school year. Photo assignments will include Fall and Winter Sports, Homecoming and other school events. Working with templates and the yearbook software will be required. Selling and advertising will also be units of study as well as editing and meeting deadlines. This course is graded as pass/fail and operates similarly to a directed study. This cannot be counted as one of the required courses for minimum enrollment (i.e. 6<sup>th</sup> class for underclassman or 5<sup>th</sup> class for a senior.)

### Yearbook Spring

**Grades 9-11**

#### **Course #24**

**0.5 credit**

Students will complete the myriad of tasks to create a quality yearbook that reflects the pictorial history of the activities for the present school year. During the spring semester students will complete the preliminary work for the following school year's book. Students will develop a theme, design the cover, end sheets and title page. Master templates will be discussed and a workable ladder for the book created. Type specs and graphic elements for each section will be developed as well as photo ideas. The Spring Sport and Prom sections will be completed. This course is graded on as pass/fail and operates similarly to a directed study. This cannot be counted as one of the required courses for minimum enrollment.

## COMMUNITY SERVICE & SERVICE LEARNING

*"Meaningful community service can strengthen your college applications."  
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### Student Assistant

**Grades 9-12**

Students may receive service recognition or credit on their transcript for performing basic clerical and office tasks under the supervision of the Information Center, Office Secretaries, Custodial Staff, Science Faculty, or Technology Staff. Student Assistants are assigned on a semester basis.



