



Hinsdale  
Middle/High School  
Program of Studies  
2023-2024

# Hinsdale High School Hinsdale, NH Program of Studies

## Table of Contents

|  |    |
|--|----|
| Profile of a Hinsdale Graduate .....                         | 3  |
| 21 <sup>st</sup> Century Learning Expectations* .....        | 3  |
| Graduation Requirements .....                                | 4  |
| Promotion Requirements .....                                 | 7  |
| Class Rank for Official Transcripts .....                    | 8  |
| Admission to Post Secondary Schools.....                     | 9  |
| Course Competency.....                                       | 10 |
| High School Course Selection Process .....                   | 11 |
| Courses of Study.....  | 12 |
| English .....  | 13 |
| Mathematics .....  | 19 |
| Sciences .....   | 26 |
| Social Studies .....   | 31 |
| World Languages.....   | 35 |
| Business Education & Computer Science/Digital Literacy ..... | 40 |
| Fine & Performing Arts .....                                 | 44 |
| Family and Consumer Sciences .....                           | 46 |
| Physical Education/Health .....                              | 48 |
| Supplemental Programs .....                                  | 50 |
| Driver education .....                                       | 51 |
| Extended Learning Opportunities (ELO) .....                  | 52 |
| Windham Regional Career Center .....                         | 53 |
| Pathways.....  | 54 |
| Middle School Classes.....                                   | 56 |
| Vocational Educational Experience (VEX) classes .....        | 60 |

## PROFILE OF A HINSDALE GRADUATE

The graduate of Hinsdale Middle/High School will have demonstrated the ability to achieve and apply appropriate academic and technical knowledge in authentic ways. This includes demonstrating essential work habits, such as creativity, critical thinking, communicating effectively, collaboration, and problem solving. These essential habits promote the graduate's ability to align their knowledge and skills in support of future career opportunities. Further, the graduate will demonstrate optimism as well as responsibility regarding their role as citizens in the broader community. The Hinsdale Middle/High School Core Values and 21<sup>st</sup> Century Learning Expectations are guidelines for supporting the Profile of a Hinsdale Graduate.

### Core Values Statement\*

Hinsdale Middle/High School is a school community which believes in providing a rich, rigorous, and supportive school experience for all learners. We place value on whole person wellness through

- Perseverance
- Advocacy
- Collaboration
- Empathy
- Responsibility
- Scholarship

This we believe to be the essence of 21st Century learning. Hinsdale Middle/High School students will graduate as positive, adaptive individuals prepared to pursue their goals and participate as responsible, contributing members of their community and the world.

## 21<sup>ST</sup> CENTURY LEARNING EXPECTATIONS\*

- ❖ Hinsdale students will communicate through various means.
- ❖ Hinsdale students will be able to solve problems.
- ❖ Hinsdale students will recognize and demonstrate the importance of whole person wellness.
- ❖ Hinsdale students will demonstrate ethical practices with technological fluency and adaptability.
- ❖ Hinsdale students will demonstrate responsibility and understand the short- and long-term impacts of their actions and choices.

\*Amended Summer 2019

\*Approved by HMHS Faculty 8/23/19

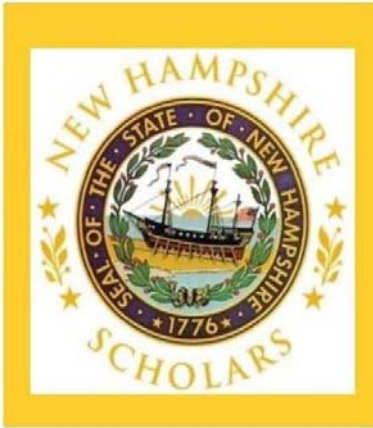
\*Approved by HSD School Board 9/11/19

## **GRADUATION REQUIREMENTS**

Students may elect to accomplish any of the following requirements in many ways. See “Courses of Study” section beginning on page 12.

| <b>Content Area</b>                                      | <b>Hinsdale<br/>H. S. Diploma</b>            | <b>NH Scholars<br/>(See next page for STEM, ARTS, and<br/>Career Pathways)</b> | <b>NH State<br/>Diploma*</b>                 |
|--|--|--|--|
| English  | 4  | 4  | 4  |
| Math   | 4<br>(One must be Algebra I)                 | 4<br>(Algebra I, Geometry, and Algebra II plus one more)                       | 3<br>(One must be Algebra)                   |
| Science  | 3<br>(One must be Biology plus one physical) | 3<br>(Must be lab sciences)  | 2<br>(One must be Biology plus one physical) |
| Social Studies<br>(Amer.Stud. / Glob.Stud. WH/Geography) | 2.5  | 2.5  | 1.5  |
| Civics   | 0.5  | 0.5  | 0.5  |
| Economics w/personal fin.                                | 0.5  | 0.5  | 0.5  |
| Personal Finance   | 0.5  | 0.5  | 0  |
| World Language   | 0  | 2<br>(Must be same language, not required for Career Pathway)                  | 0  |
| Physical Education                                       | 1  | 1  | 1  |
| Health   | 0.5  | 0.5  | 0.5  |
| Art  | 0.5  | 0.5  | 0.5  |
| ICT<br>Formerly computer science                         | 0.5  | 0.5  | 0.5  |
| Electives  | 7  | 5  | 6  |
| Total Credits  | 24.5   | 24.5   | 20   |
| Required Minimum GPA                                     |  | 3.2<br>(For ALL Pathways)  |  |

*\*A 20 credit State of New Hampshire Minimum Requirement diploma may be granted on a case-by-case basis.*



### STEM PATHWAY REQUIREMENTS

- Lab Science:  
Additional 1 credit
- STEM related course:  
1 credit

*(Science, Math, Technology, Engineering, Computers, Advanced Manufacturing, including CTE, Project Lead The Way, etc.)*

## MINIMUM NH SCHOLAR REQUIREMENTS

- English: 4 credits
- Math: 4 credits or 4 years  
*(including Alg. I, Alg. II and Geometry)*
- Lab Science: 3 credits  
*(including Biology & Chemistry)*
- Social Science: 3 ½ credits
- Foreign Language: 2 credits  
*(NH Scholar, STEM and Arts Pathway only)*

*See below for additional requirements of each pathway. You can't count a course twice.*

### MEDAL COLORS

- **NH Scholar:** Blue & Gold
- **STEM:** Green & Gold
- **Art:** Black & Gold
- **Career:** Red & Gold
- **Complete two or more pathways:** Maroon & Gold

### ARTS PATHWAY REQUIREMENTS

- Art: 2 credits  
*(Visual Art, Fine Art, Performing Arts, Music, Graphic Design, etc.)*

### CAREER PATHWAY REQUIREMENTS

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

## **NCAA FRESHMAN ELIGIBILITY STANDARDS**

All student athletes planning to participate at a NCAA Division I or Division II level institution must register with the eligibility center. Information can be obtained from the NCAA website - [www.ncaa.org](http://www.ncaa.org). The eligibility center will review and verify a student athlete's academics as well as their amateur status in to be eligible to participate in athletics at Division I and Division II schools.

Division III colleges and universities do not use the NCAA Eligibility Clearinghouse. They each have their own policies and standards on admission, financial aid, practice and competition.

It is recommended that student athletes should register with the NCAA clearinghouse at the start of their junior year in high school, there is no actual registration deadline, but you must be cleared by the clearinghouse before you can receive a scholarship or compete in your sport. Eligibility is based on all four years of your high school career.

## **ACADEMIC HONORS**

Honor Graduates will have completed the prescribed course of study in accordance with New Hampshire code and regulations issued by the School Board and the New Hampshire State Board of Education. Grade Point Average (GPA) to determine valedictorian, salutatorian, and other honor graduates will be computed at the conclusion of the third quarter of the Senior year. A student must achieve a 3.75 G.P.A. to be designated an Honor Graduate. An Honor Graduate who has completed 24.5 or more credits, including 2 AP credits with completion of AP Exams, shall be designated as a High Honors Graduate.

### **District Requirements For Designation As Valedictorian**

1. The Valedictorian must be a High Honors Graduate.
2. The Valedictorian must have been a student at the High School for his or her entire sophomore, junior and senior years.
3. The student with the highest GPA, computed on the 4-point scale, shall be named Valedictorian.

In the event of a tie based on GPA, the numerical grade average of all AP classes will be determined for each student whose GPA is tied. If all averages are not equal, the student with the highest numerical average shall be named Valedictorian.

If a tie still exists, all those who are tied shall be designated Co-Valedictorians

## **School Requirements For Designation As Salutatorian**

1. The Salutatorian must be a High Honors Graduate.
2. The Salutatorian must have been a student at the High School for his or her entire sophomore, junior and senior years.
3. The student with the highest GPA after the Valedictorian shall be named Salutatorian.

In the event of a tie based on GPA, the numerical grade average of all AP classes will be determined for each student whose GPA is tied. If all averages are not equal, the student with the highest numerical average shall be named Salutatorian.

If a tie still exists, all those who are tied shall be designated Co-Salutatorians.

*Academic Honors is listed in concordance with policy IKC which can be found in the District Policy Handbook.*

## **PROMOTION REQUIREMENTS**

In order to meet the requirements of graduation, the guidance department will ensure that all students will be enrolled in a minimum of 6 courses per day each semester. The minimum accumulation of course credits (and courses for junior year promotion) that must be successfully completed to be promoted to the next grade:

|                                  |              |
|----------------------------------|--------------|
| To Proceed to the Sophomore Year | 6 Credits    |
| To Proceed to the Junior Year    | 12 Credits   |
| To Proceed to the Senior Year    | 18 Credits   |
| Minimum Graduation Requirements  | 24.5 Credits |

*Should a student not meet the credit requirement in a given year, they may be eligible for credit recovery. Students should ask their high school counselor for more information.*

## **CLASS RANK FOR OFFICIAL TRANSCRIPTS**

A graduate's class rank shall be determined by their final grade point average with the ranks being assigned as follows:

1. Class rank shall be a composite of grades earned in high school, credit-bearing courses. Grades transferred from schools where class rank is determined by a different system shall be converted to HMHS ranking system. Grades earned in summer school, other principal approved courses offered outside of the school, and principal-approved dual enrollment in programs offered at institutions of higher education (IHEs), shall be included in the calculation of class rank.
2. The class rank is calculated on the following scales:

|    | AP*  | Honors* | General |
|----|------|---------|---------|
| A+ | 4.50 | 4.33    | 4.25    |
| A  | 4.33 | 4.25    | 4.00    |
| A- | 4.25 | 4.00    | 3.75    |
| B+ | 4.00 | 3.75    | 3.50    |
| B  | 3.50 | 3.25    | 3.00    |
| B- | 3.25 | 3.00    | 2.75    |
| C+ | 3.00 | 2.75    | 2.50    |
| C  | 2.50 | 2.25    | 2.00    |
| C- | 2.25 | 2.00    | 1.75    |
| D+ | 2.00 | 1.75    | 1.50    |
| D  | 1.50 | 1.25    | 1.00    |
| D- | 1.25 | 1.00    | 0.75    |
| F  | 0.00 | 0.00    | 0.00    |

*\*AP and Honors designations are listed with each course description. Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.*

*Class Rank is listed in concordance with policy IKC which can be found in the District Policy Handbook.*



## ADMISSION TO POST SECONDARY SCHOOLS

While completing competencies and earning credit is most important, if a student’s goal is to attend college, then attention should also be given to such criteria as course rigor, grades, GPA, rank in class, SAT/ACT scores, school recommendations, and co-curricular/extra-curricular activities. If considering selective colleges, students should seriously consider enrolling rigorous courses such as dual enrollment, ELO, and AP courses in their Junior and Senior years. Since admission requirements vary widely between higher education institutions, students should consult college websites and their high school counselor to discuss future plans. The following chart is an overview of requirements based on type of school a student may be applying to:

|   | <b>English</b> | <b>Mathematics</b> | <b>Social Studies</b> | <b>Sciences</b>    | <b>World Language</b> |
|---|----------------|--------------------|-----------------------|--------------------|-----------------------|
| <b>Community Colleges</b>                                       | 4              | 3                  | 3                     | 2                  | 0-2                   |
| <b>Four-Year Colleges</b>                                       | 4              | 3                  | 4                     | 3<br>(2 Lab)       | 2                     |
| <b>Highly Selective/Competitive Colleges &amp; Universities</b> | 4+             | 4-5+               | 4+                    | 4+<br>(Mostly Lab) | 4+                    |
| <b>Trade Programs</b>   | 4              | 3                  | 2                     | 2                  | 0                     |

### **Running Start College Credits**

Running Start is a concurrent enrollment program available through the Community College System of NH that provides high school students with the opportunity to take college courses, on their high school campus, while also completing the requirements for high school graduation. At Hinsdale Middle High School, we work with River Valley Community College. Students may elect to sign up for Running Start near the beginning of the course and pay a reduced tuition of \$150. Students should see their high school counselor for more information. (This includes e-start and Bridge2College.)

### **Dual Enrollment**

Students who wish to earn credit for learning opportunities extending beyond those offered on our campus may do so by taking classes at nearby college campuses or online. Students would register with the college and create a Dual Enrollment plan with their high school counselor. Students must have a 3.0 GPA or higher and write a letter to the principal requesting approval.

### **Keene State College Accelerated Program**

Courses at Keene State College are available to juniors and seniors with a 3.0 or better cumulative GPA at a rate of half of the tuition. Students who are interested in taking classes at Keene State College for enrichment or academic exploration should see their high school counselor for more information.

## **NCAA Eligibility**

Students seeking eligibility for athletics at the collegiate level must ensure that the courses they select have been approved by the NCAA to meet graduation requirements as a minimum. Prospective collegiate athletes may enroll in a non-NCAA approved course for graduation from HMHS, but this does not necessarily mean that the course has been approved by the NCAA. For more information please see the high school counselor or log on to [www.ncaa.org](http://www.ncaa.org) for more information.

## **COURSE COMPETENCY**

For the purposes of assessment of high school course work through the demonstration of student mastery of course competencies, the following definitions are established:

**Course Level Competencies:** The expected content, concepts and skills to be mastered in a course.

**Competency Assessments:** The process by which a student demonstrates sufficient evidence of learning.

**Formative Assessment:** This type of assessment is used to determine the progress of a student's learning during a unit of instruction. This may include homework, quizzes, and classwork.

**Summative Assessment:** These types of assessments are used to determine if students have achieved mastery after a unit of instruction. This will usually come in the way of traditional tests, long term projects, presentations, research papers, etc.

### **Components of Assessment that Measure Competency:**

- **Depth of Knowledge** – Students are asked to demonstrate their knowledge of understanding, and skills by producing a product that is original. This involves students analyzing and integrating knowledge with understanding and the ability to transfer skills.
- **Transfer of Learning** – Students are asked to demonstrate their competency beyond the course and to other courses taken with the school; including advanced courses, independent work, extended learning opportunities, national/state assessments that measure college and career readiness.

### **Awarding Credit by Alternative Means:**

Students may earn credit for a given course by meeting competencies if the following requirements are met:

1. Students propose a plan, in writing, to the principal no later than the end of add/drop for the current semester. Plan to include:
  - a. Timeline for progress monitoring and completion
  - b. List of competencies to be completed.
  - c. Artifacts that show Depth of Knowledge (such as a project, test, etc)
  - d. Summative project that will show Transfer of Learning

2. Students have a faculty mentor, in a matching content area, determining that the competencies for the course have been met.
3. Students will present to a predetermined assessment panel to evaluate if competencies have been successfully completed.

*This process complies with ED306.27(d).*

## **HIGH SCHOOL COURSE SELECTION PROCESS**

Students are expected to give serious consideration to their course selections. Students should involve parents, teachers, counselors, and case managers in their decision-making process. Once a student has selected courses, the expectation is to follow through with the original course selection unless a course is cancelled, or the high school counselor determines the course has been otherwise completed.

Scheduling errors will be adjusted by the counselors before the beginning of school. Course issues and concerns should be brought to the counselor's attention as soon as they occur. When necessary, the high school counselor and administration will determine the best method to resolve scheduling issues. *Courses in this Program of Studies may be cancelled due to low enrollment or staffing restrictions. Be sure to select alternative courses.*

### **Course Scheduling Process**

The master schedule is developed to maximize each student's opportunity to take courses each semester. Seniors are given priority in the scheduling process followed in order by juniors, sophomores and freshmen. In some cases, students will not be able to be scheduled for every course which they would like to take.

Students need to carefully select their classes and their alternate selections during the scheduling period. Because classes are run based on student interest, while offering courses required for graduation, it is essential that we get an accurate count for each class. Once the scheduling sheet is submitted, the courses will be scheduled for the student. When all of the students are scheduled, decisions will be made regarding the number of teachers needed to properly staff our high school.

### **Schedule Change Procedure**

All requests for schedule changes should be made prior to the start of the upcoming semester/ school year through the Guidance Department. Students may not change their schedules once a new quarter or semester has begun. It is the students' responsibility to plan in advance. Certain circumstances may arise, requiring a schedule change:

1. The schedule is incomplete.
2. The schedule does not reflect the classes or alternate choices (a student **must** have alternate course choices) the student personally selected in the spring. This is why students **must** choose their courses and alternate courses wisely in the spring.
3. The student does not meet the prerequisite of the course.
4. The student is requesting a more rigorous academic course.
5. The student failed a course and needs that course as a graduation requirement.
6. The student has successfully completed the failed course in an authorized summer or night school program.

7. There is a computer or clerical error.
8. Administrative approval.

To request a change, students need to obtain a **Schedule Change Form** from the Guidance Office, fill it out, have it signed by the teachers involved, a parent, and return it to the Guidance Counselor before the schedule change can be made.

## **COURSES OF STUDY**

Graduation competencies are those needed for a student to be college and career ready, which includes core academic course competencies and associated knowledge, skills, and work-study practices. (NH ED 306.02)

Course selections are best made in alignment with the student's individual 4-year plan as designed with their counselors and parents (See Appendix A).

Competencies can be demonstrated through:

- **Coursework** – classes offered through Hinsdale High School, Windham Regional Career Center, or approved online learning.
- **Extended Learning Opportunities (ELO)** - Opportunities for all students, defined as, "Learning at any time, in any place and in any form".
- **Dual Enrollment** – Classes offered through community colleges, Keene State College, e- Start, and Bridge2College
- **VLACS** – Classes offered online for free to New Hampshire residents. A student may only be allowed to drop a current HMHS Class after they have started their VLACS class (this can take up to two weeks, please plan ahead).

## **ENGLISH**

All English courses develop students' reading, writing, listening, speaking, and technological skills as well as provide students with an understanding of literary works of worth and significance, both fiction and non-fiction. Instruction includes close reading of texts, vocabulary development, and the writing of arguments written for specific audiences and based on evidence. Our courses also reflect the Common Core State Standards and reinforce the academic competencies of the HMHS Learning Expectations, a copy of which can be found at the beginning of this Program of Studies.

### **English 9 General (110)**

**Year – 1 Credit**

How does literature reflect our history, culture, and values? In this survey approach to the study of literature, students will closely read and comprehend a variety of works such as *Of Mice and Men* and *Animal Farm*. Students will also read a play by William Shakespeare. There will be an emphasis on analysis of how different authors address similar themes and topics. Students will build their knowledge of language conventions by studying grammar and vocabulary. Additionally, students will learn to write based on research for a range of tasks. Students will use technology to present new knowledge and ideas in a collaborative manner. This level is designed to meet the needs of students with varying abilities.

### **English 9 Honors (110H)**

**Year – 1 Credit**

*Prerequisites: Demonstrated proficiency on standardized assessments, 90% or better in English 8 and recommendation of the sending teacher.*

How does literature reflect our history, culture, and values? In this survey approach to the study of literature, students will closely read and comprehend a variety of works such as *Of Mice and Men*, *Animal Farm*, and *The Crucible*. Students will also read a play by William Shakespeare. There will be an emphasis on analysis of how different authors address similar themes and topics. Students will build their knowledge of language conventions by studying grammar and vocabulary. Additionally, students will learn to write based on research for a range of tasks. Students will use technology to present new knowledge and ideas in a collaborative manner. This class is designed for the student who is planning on attending a four-year college; there is more depth of understanding and rigor required in this course. *Summer coursework will be required.*

### **English 10 General (120)**

**Year – 1 Credit**

How does literature reflect our history, culture, and values? In this survey approach to the study of literature, students will closely read and comprehend a variety of works such as *To Kill a Mockingbird* and *The Catcher in the Rye*. Students will also read a play by William Shakespeare. There will be an emphasis on analysis of how different authors address similar themes and topics. Students will build their knowledge of language conventions by studying grammar and vocabulary. Additionally, students will learn to write based on research for a range of tasks. Students will use technology to present new knowledge and ideas in a collaborative manner. This level is designed to meet the needs of students with varying abilities.

### **English 10 Honors (120H)**

**Year – 1 Credit**

*Prerequisites: Recommendation of the sending teacher and completion of either English 9 General with 90% or better or English 9 Honors with an 80% or better.*

How does literature reflect our history, culture, and values? In this survey approach to the study of literature, students will closely read and comprehend a variety of works such as *To Kill a Mockingbird*, *The Catcher in the Rye*, and *Bless Me, Ultima*. Students will also read a play by William Shakespeare. Students will be able to analyze how different authors address similar themes and topics. Students will build their knowledge of language conventions by studying grammar and vocabulary. Additionally, students will be able to write based on research for a range of tasks and use technology to present new knowledge and ideas in a collaborative manner. This class is designed for the student who is planning on attending a four-year college; there is more depth of understanding and rigor required in this course. ***Summer coursework will be required.***

### **English 11 General (159)**

**Year – 1 Credit**

What are universal themes that are reflected in literature from around the world? In this survey approach to the study of world literature, students will be able to closely read and comprehend a variety of works from authors around the globe, such as *Things Fall Apart* and *All Quiet on the Western Front*. Students will analyze how different authors address similar themes and topics. Students will also build their knowledge of language conventions by studying grammar and vocabulary. Additionally, students will be able to write based on research for a range of tasks and use technology to present new knowledge and ideas in a collaborative manner. This level is designed to meet the needs of students with varying abilities.

**English 11 Honors (159H)**

**Year – 1 Credit**

*Prerequisites: Completion of English 10 General with 90% or better or English 10 Honors with an 80% or better and recommendation of the sending teacher.*

What are universal themes that are reflected in literature from around the world? In this survey approach to the study of world literature, students will be able to closely read and comprehend a variety of works from authors around the globe, such as *Things Fall Apart* and *All Quiet on the Western Front*. Students will analyze how different authors address similar themes and topics. Students will also build their knowledge of language conventions by studying grammar and vocabulary. Additionally, students will be able to write based on research for a range of tasks and use technology to present new knowledge and ideas in a collaborative manner. This class is designed for the student who is planning on attending a four-year college; there is more depth of understanding and rigor required in this course. ***Summer coursework will be required.***

**Creative Writing (145)**

**Sem. – .5 Credit**

*Students are encouraged to take this course as a Junior or Senior*

What are ways we can write more creatively? This course is an introduction to creative writing through the production of poetry, personal narrative, and fiction. Students will keep a journal critiquing other's work, will be able to complete various exercises designed to stimulate the imagination, and will hone writing skills. Students work both independently and collaboratively. *This course is weighted on the general scale.*

**Literature of Nature (184)**

**Sem. – .5 Credit**

*Students are encouraged to take this course as a Junior or Senior*

How are we connected to the natural world? In this course students will examine mankind's connection with nature. Units will focus on appreciation, adventure, and conservation. Students will read related works of poetry, short stories, novels, and nonfiction. Students will also take trips into the field to enhance their understanding of the subjects studied. Students will be assessed in a variety of ways including journals, tests, projects, and writing. *This course is weighted on the general scale.*  
*Clusters: AFN, AC*

**Mythology (150)**

**Sem. – .5 Credit**

*Students are encouraged to take this course as a Junior or Senior*

How have Greek and Roman mythology affected our literature, our culture, and our understanding of the world we live in today? This course is a one-semester survey of Greek and Roman mythology in which students will be able to analyze myths and create real-world applications with the gained knowledge. Literature translated and studied are the important stories and poetry of the Greek and Roman writers, including excerpts from *Ovid*, Homer's *Odyssey*, and Edith Hamilton's *Mythology*.

*This course is weighted on the general scale.*

**College Composition I (183S and 183J)**

**Sem. – 1 Credit**

*Open to Seniors (183S) in the fall*

*Prerequisites: Recommendation of the sending teacher and completion of either English 11 General or English 11 Honors with an 80% or better.*

*Open to Juniors (183J) in the spring*

*Prerequisites: Recommendation of the sending teacher and completion of either English 10 General or English 10 Honors with an 80% or better. Further, at the end of semester one, students who are maintaining the 80% in English 11 or English 11 Honors will continue to be eligible.*

How is learning to write competently important to the way we think, read, and express ourselves to the world outside? College Composition I is a semester-long college course taught in partnership with the Community College System of New Hampshire (CCSNH). Students will write their college essays as well as learning to write clearly and effectively for defined audiences through a variety of rhetorical strategies: description, narrative, example, classification, process analysis, comparison and contrast, definition, cause and effect, argument, and includes a research paper. Emphasis is placed on the writing process from pre-writing through drafting, revising, and editing. The purpose of the course is to prepare students for writing in college.

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

*College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester. This course is weighted on the AP scale.*



**College Composition II: The Research Essay (183II)**

**Sem.-1 Credit**

*Open to Seniors in the spring*

*Prerequisites: Open to Seniors who have completed College Composition I with a 75% or better.*

The Research Essay builds on the skills and attitudes developed in College Composition I. Students will reach beyond personal knowledge toward expertise through research. Writing a variety of academic papers with strong emphasis on a research essay, students become active investigators, synthesizing traditional sources and personal expertise in order to combine insight and evidence.

**To receive college credit, \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

*College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester. This course is weighted on the AP scale.*

**Public Speaking (189)**

**Sem. – .5 Credit**

*Students are encouraged to take this course as a Junior or Senior*

How valuable is it for a high school graduate to be able to speak and make presentations in front of an audience in this communicatory world we live in today? Students will become comfortable speaking in front of audiences as well as speak and present proficiently. This includes choosing a topic, dealing with fear, knowing your audience, using visual aids, using body language, and much more. *This course is weighted on the general scale.*

*Clusters: ATC, BMA, ET, FIN, GPA, HT, HY, LPC, MSS, TDL*

**Contemporary Literature (181)**

**Sem. – .5 Credit**

*Students are encouraged to take this course as a Junior or Senior*

How does close reading and reflection develop one's reading skills? In this class, students will examine works of poetry, prose, and drama from the last fifty years. Students will be able to summarize, make connections, and draw conclusions about literature and literary nonfiction. Texts may include *Life of Pi*, *The Lovely Bones*, *Snow Falling on Cedars*, *Tuesdays with Morrie*, and *Angela's Ashes*.

**Literature and Composition – AP (165)**

**Year - 1 Credit**

*Open to Seniors Only*

*Prerequisites: Recommendation of the sending teacher and completion of either English 11 General with 90% or better or English 11 Honors with an 80% or better.*

How does one critically read and analyze a text? The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. Writing assignments focus on the critical analysis of literature and include expository, analytical, and argumentative essays. College credit is contingent upon passing the Advanced Placement exam. Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing. ***Summer coursework is required. Students are expected to take the AP exam at the end of the course (for which there is an approximate fee of \$95).***

***\*Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.***

## **MATHEMATICS**

Mathematics courses teach problem solving strategies, close reading for content, research and presentation, spatial reasoning, and numerical literacy. They reflect the New Hampshire Common Core State Standards and reinforce the academic competencies of the HMHS Learning Expectations, a copy of which can be found at the beginning of this Program of Studies.

Note: In addition to the courses listed below, **Accounting I and Accounting II** may each be taken for 1 credit of the math requirement in a student's junior or senior year.

### **Algebra I General (215)**

**Year - 1 Credit**

*Prerequisite: Successful completion of Math 8 or by recommendation of the sending teacher.*

Students will be able to understand and apply algebraic principles to solve problems. This course includes problem solving, manipulating and solving equations, graphical, numerical, and conceptual understanding of functions, solving systems of equations with two variables, completing basic operations with polynomials, interpreting given representations and analyzing data, probability, graphing and solving inequalities, examining sequences and series, and exploring transformations of graphs. The course also covers properties of exponents, exponential functions, and scientific notation. Students will use technological resources to explore key concepts and prove statements.

### **Algebra I Honors (215H)**

**Year – 1 Credit**

*Prerequisites: Demonstrated proficiency on standardized assessments, 90% or better in Middle School Math and recommendation of the sending teacher.*

Students will be able to understand and apply Algebraic principles to solve problems. Problem solving techniques are an essential skill developed by this course. This course is a more rigorous path that covers the same topics as Algebra I. The students, in addition to the above listed content, apply the concepts to solving problems in various fields of knowledge such as business, science, industry and engineering. Emphasis is given to practical use of the concepts involved in Algebra, and how these concepts can be used to predict equations and solve real-life problems. Students will use technological resources to explore key concepts and prove statements.

### **Geometry General (220)**

**Year– 1 Credit**

*Prerequisites: Earned credit in either Algebra I or Algebra I Honors.*

Students will be able to understand and apply Geometric principles, theorems and formulas. This is a comprehensive course featuring coverage of geometric terms and processes, logic, and problem solving. Topics include angles and triangles, congruence, similarity, right triangles and trigonometry, circles, geometric measurement and dimension, and modeling with geometry. Students will use graphing calculators and online technological resources such as DESMOS to explore key concepts and

prove statements. The course will include written assignments, projects involving technology, as well as constructions and presentations.

### **Geometry Honors (220H)**

**Year– 1 Credit**

*Prerequisites: Recommendation of the sending teacher and completion of either Algebra I General with 90% or better or Algebra I Honors with an 80% or better.*

Students will be able to understand and apply Geometric principles, theorems and formulas. This is an accelerated version of the Geometry course, featuring more intensive coverage of geometric terms and processes, logic and problem solving. Topics include angles and triangles, congruence, similarity, right triangles and trigonometry, circles, geometric measurement and dimension and modeling with geometry. Students will use graphing calculators and technological resources online such as DESMOS to explore key concepts and do proofs. There is increased emphasis on practical problem solving using geometric principles. The course will include written assignments, projects involving technology, as well as constructions and presentations.

### **Business and Personal Mathematics (MATH225)**

**Sem– .5 Credit**

Prerequisites: Earned credit in Algebra I or Algebra I Honors and either Geometry or Geometry Honors.

In this course, students will be able to use mathematics as a tool in their personal and business lives. After students have completed this course, they will be able to apply mathematical concepts in various personal and business situations. Student will be able to apply mathematical operations with whole numbers, decimals, fractions, ratios, and percents. They will understand terminology relating to personal and business mathematics applications and apply basic math skills to the solution of both. They will use common mathematical formulas to solve a variety of personal and business mathematics as well as apply knowledge of computer and calculator use.

### **Business Mathematics II**

**Sem.– .5 Credit**

Prerequisites: Earned credit in Algebra I or Algebra I Honors and either Geometry or Geometry Honors or Completion of Business & Personal Mathematics I

In this course, students will be able to use mathematics as a tool and application in business activities. After students have completed this course, they will be able to apply mathematical concepts in various business situations. Students will be able to apply mathematical operations with whole numbers, decimals, fractions, ratios, percents and quantitative decision making. They will understand terminology relating to business mathematics applications and apply basic math skills to the solution. They will use common mathematical formulas to solve a variety of business mathematics as well as apply knowledge of computer and calculator use.

**Introduction to Business Management & Leadership****Sem. – .5 Credit**

Passing grade in Economics, Business & Personal Mathematics I, or instructor approval required. This course is designed to familiarize students with different aspects of the management and entrepreneurial leadership. Students will explore the areas of Human Resource management, quantitative decision making, entrepreneurship, leadership, and business laws & ethics. Introduction to Business Management and Leadership includes an emphasis on case studies, research, projects, with students completing projects both individually and in teams for each of the different modules.

**Math Modeling (MATH226)****Year– 1 Credit**

*Prerequisites: Earned credit in Algebra I or Algebra I Honors and either Geometry or Geometry Honors.*

Math Modeling expands upon the concepts covered in Algebra I and Geometry. The emphasis is on investigating the way various functions are applied in different disciplines and for different purposes. While Algebra I and Geometry address basic applications as one facet of each function, Math Modeling examines the applications in depth. This non-STEM course includes a three-pronged approach to discovering applications. Students will be able to determine the appropriate application by studying the properties of a function, while in other situations the applications will be discovered by using graphing calculators to find the function that best fits raw data. In several investigations, students will use geometry to find solutions. Each investigation will conclude with a summary that requires the use of technical writing skills and/or presentations. This course focuses on project-based learning and uses a group model accomplish many of the projects.

**Algebra II General (230G)****Year – 1 Credit**

*Prerequisites: Recommendation of the sending teacher and a grade of 75% or better in Geometry or Geometry Honors.*

Students will be able to understand and apply Algebraic functions while enhancing problem solving techniques that are an essential skill developed by this course. This course extends the concepts covered in Algebra I to include such topics as functions, quadratic equations, matrices, absolute value, inequalities, simplifying rational expressions, linear programming, exponential/logarithmic functions, and applications of trigonometric functions. Students will be required to use a graphing calculator.

**Algebra II Honors (230H)****Year – 1 Credit**

*Prerequisites: Recommendation of the sending teacher and completion of either Geometry General with 90% or better or Geometry Honors with an 80% or better.*

Students will be able to understand and apply algebraic functions while enhancing problem solving techniques that are an essential skill developed by this course. This course increases the student's ability to apply mathematical solutions to real-life situations by extending the concepts learned in Algebra I such as adding quadratic equations, matrices, absolute value, inequalities, simplifying rational expressions, linear programming, exponential/logarithmic functions, and trigonometric functions. Emphases will be placed on problem solving and using a variety of mathematical approaches. Students will be required to use a graphing calculator.

**Precalculus (240)**

**Year – 1 Credit**

*Prerequisites: Recommendation of the sending teacher and completion of Algebra II General with a 90% or better or Algebra II Honors with an 80% or better.*

Students will be able to understand and apply advanced Algebraic and trigonometric functions. This Pre-Calculus course is an option to those students who have completed the Algebra and Geometry series. The course begins with a review of linear and quadratic functions and progresses into further study of function interpretation and transformation of exponential and trigonometric functions, expressing geometric properties with equations, and modeling with each of the functions studied. Coursework will include problem solving relevant to various fields of study, writing assignments, presentations and projects. There is also a focus on the study of limits, which is necessary to progress to Calculus. The student will be required to use a graphing calculator. *This course is weighted on the honors grading scale.*

**Applied Statistics (235G)**

**Year -1 Credit**

*Prerequisite: Recommendation of the sending teacher and earned credit in Algebra II, or Algebra II Honors.*

The focus of the course will be on the development of statistical literacy and statistical thinking through the examination of real-world data from a variety of contexts, including data sets of interest to students. This course is an introduction to the basics of descriptive and inferential statistics. Topics include statistical distributions, linear regression and correlation, surveys and experiments, sampling distributions, probability, confidence intervals and hypothesis testing. This course engages students in projects focusing on activity-based instruction that integrates technology (e.g., dynamic statistical packages, calculator-based “labs”, spreadsheets, on-line virtual manipulatives) and emphasizes the conceptual understanding of the statistical topics studied. Students will be required to use a graphing calculator.

**Calculus AB - AP (250)**

**Year – 1 Credit**

*Prerequisite: Recommendation of the sending teacher and a grade of 80% or better in Precalculus.*

This course is a rigorous study of calculus presented on a college level. Topics of study follow the College Board recommended curriculum in preparation for the Advanced Placement (AP)

Examination. Emphasis will be placed on the differentiation and integration of algebraic, trigonometric, exponential, and logarithmic functions. Several applications of differentiation and integration are presented throughout the course. Assessments will model the multiple choice and free response format, both with and without the use of a graphing calculator, found on the AP exam. Recommended for students considering majoring in Engineering, Business, Architecture, Science or Mathematics. Students will be required to use a graphing calculator. Students are expected to take the AP exam at the end of the course (for which there is an approximate fee of \$95). **\*Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.**

*\*Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.*

### **College Statistics (235)**

**Sem. 1 Credit**

*Prerequisite: Must be a Junior or Senior and have earned credit in Algebra II or Algebra II Honors.*

The focus of the course will be on the development of statistical literacy and statistical thinking through the examination of real-world data from a variety of contexts, including data sets that are of interest to students. College Statistics is a semester-long college course taught in partnership with the Community College System of New Hampshire (CCSNH). Without assuming a calculus background, College Statistics is an introduction to the basics of descriptive and inferential statistics. Topics include statistical distributions, linear regression and correlation, surveys and experiments, sampling distributions, probability, confidence intervals and hypothesis testing. This course engages students in projects focusing on activity-based instruction that integrates technology (e.g., dynamic statistical packages, calculator-based “labs,” spreadsheets, on-line virtual manipulatives) and emphasizes the conceptual understanding of the statistical topics studied. *The AP weighting scale is used.*

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

*College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester.*

### **Machine Math (237)**

**Year- 1 Credit**

Prerequisites: Algebra 1, Geometry

This course prepares students for a career in manufacturing. It applies mathematical disciplines such as measurement, geometry and trigonometry in an integrated fashion to solve problems that a machinist may encounter. In addition to performing calculations, students will make use of various measuring tools such as calipers and micrometers during hands-on activities. An exposure to industry-based Computer Aided Design (CAD) software and 3-dimensional printing is also included. This course is ideal for a student interested in pursuing an Extended Learning Opportunity (ELO) in Machine Manufacturing. Field trips to local companies are possible. This course is weighted on a general scale.



*Artwork by: Daytona Boyd, 2025*



**College Mathematical Investigations (236)**

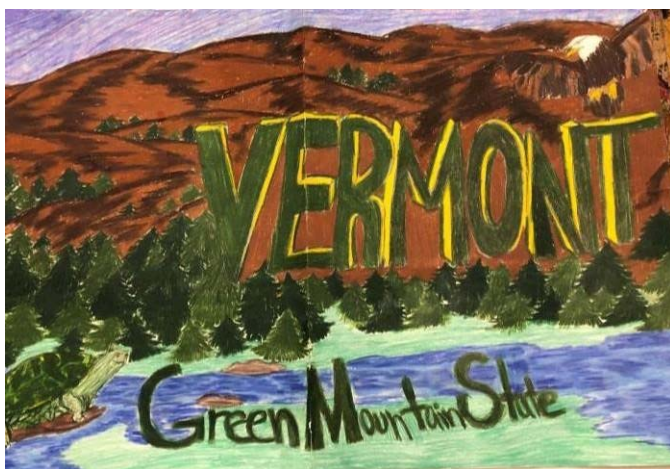
**Sem. – 1 Credit**

*Prerequisite: Must be a Junior or Senior and have earned credit Algebra II or Algebra II Honors.*

The course emphasizes mathematical thinking, habits of the mind, and problem solving. These strategies will allow the student to apply mathematics to real-life situations. College Mathematical Investigations is a semester-long college course taught in partnership with the Community College System of New Hampshire (CCSNH). It represents an introduction to various branches of mathematics at the College level, including number theory, functions and modeling, geometry, and probability and statistics. The course will focus on some of the most interesting ideas in the history of mathematics and various applications, including the infinitude of the primes, the non-denumerability of the real numbers, different sizes of infinity, golden rectangles, non-Euclidean geometry, and measuring risk. Students will complete research projects in areas such as cryptography, platonic solids, topology, chaos and fractals, and different voting methods. Along the way, the student will confront issues that challenge intuition and explore mathematical questions that have remained unsolved for hundreds of years. The course is student centered and focuses on activity-based instruction that integrates technology. *The AP weighting scale is used.*

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

*College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester.*



*Artwork by: Emily Bills, 2025*

## **SCIENCES**

### **Earth Science 9 General (320)**

**Year – 1 Credit**

Topics within this course include the study of the earth and its place in the universe. Conditions on the earth, its weather, its landforms, its atmosphere, and its oceans are explored. There is also an emphasis on past geologic history, as well as the plants and animals which inhabited the earth millions of years ago. Students will be able to determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to topics covered in this class. Students will also be able to follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Earth Science 9 Honors (320H)**

**Year – 1 Credit**

*Prerequisites: Demonstrated proficiency on standardized assessments, 90% or better in science 8 and recommendation of the sending teacher.*

Honors Earth Science is a high-level class in which students will be able to interpret Earth-Space systems through excellent reading skills and study habits as well as a demonstrated ability to work independently. Laboratory exploration and group work are both major components of the class. Essential understandings include the study of the earth, earth systems, and the earth's place within the universe. There is also an emphasis on past geologic history, as well as the plants and animals which inhabited the earth millions of years ago. Students will be able to determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to topics covered in this class. Students will also be able to follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Biology General (325)**

**Year – 1 Credit**

In Biology students will understand that life is organized in a hierarchical manner, from atoms and molecules to the Biosphere as well as gain an understanding of Genetics, DNA structure and inheritance, and how the expression of genetic information involves cellular and molecular mechanisms. Further students will explore that Natural Selection is a driving force of evolutionary change in species. Students will also be able to properly use a microscope and other scientific equipment. An emphasis on reading scientific literature, developing scientific vocabulary, practicing inquiry, writing research projects and laboratory reports are an integral part of the program. Students

are expected to engage in their own learning while taking responsibility and ownership through participation in laboratory activities, self-evaluation and reflection.

### **Biology Honors (325H)**

**Year – 1 Credit**

*Prerequisites: Recommendation the sending math teacher and completion of either Earth Science General with 90% or better or Earth Science Honors with an 80% or better.*

Honors Biology is a college preparatory class in which students are expected to have excellent reading skills and study habits as well as a demonstrated ability to work independently. Laboratory and group work is a major component of the course. In Biology students will understand that life is organized in a hierarchical manner, from atoms and molecules to the Biosphere as well as gain an understanding of Genetics, DNA structure and inheritance, and how the expression of genetic information involves cellular and molecular mechanisms. Further students will explore that Natural Selection is a driving force of evolutionary change in species. Students will also be able to properly use a microscope and other scientific equipment. An emphasis on reading scientific literature, developing scientific vocabulary, practicing inquiry, writing lengthy research projects and laboratory reports are an integral part of the program. Students are expected to engage in their own learning while taking responsibility and ownership through participation in laboratory activities, self-evaluation and reflection.

### **Applied Chemistry (341A)**

**Year – 1 Credit**

*Prerequisite: Sending math teacher approval and earned credit in Algebra I General or Algebra I Honors.*

This semester course in chemistry is designed to provide students with an essential understanding of basic chemical principles and how they apply to change in the world around us. Atomic structure, systems and modeling, science as inquiry, applications in technology, as well as historical perspectives will be covered through a variety of lab-based experiences and projects. In this class, students will be able to follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. Students will be able to determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to chemistry. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Chemistry Honors (341H)**

**Year – 1 Credit**

*Prerequisites: Recommendation the sending math teacher and completion of either Algebra I General with 90% or better or Algebra I Honors with an 80% or better.*

This course is designed for the college-bound student. Chemistry Honors is a high-level class in which students are expected to have excellent reading skills and study habits as well as a demonstrated ability to work independently. Laboratory activities and group work are both major

components of this class. The essential understanding within this course revolves around the application and study of elements that make up the world around us. Concepts covered include measurement, atomic structure, periodic law, chemical bonds, chemical reactions, solutions, material properties, periodic laws, stoichiometry and equilibrium. A strong emphasis is placed on problem solving and laboratory experiences. Students will be able to synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. In this class, students will be able to follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Applied Physics (351A)**

**Year – 1 credit**

*Prerequisites: Recommendation of the sending math teacher and earned credit in Geometry General or Geometry Honors.*

This semester course in physics is designed to provide students with an essential understanding of basis physics principles and their applications. Motion, energy forms, and electricity will be approached through both lab-based experiences and projects. In this class, students will be able to follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. Students will be able to determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to physics. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Physics Honors (351H)**

**Year – 1 Credit**

*Prerequisites: Recommendation the sending math teacher and completion of either Geometry General with 90% or better or Geometry Honors with an 80% or better.*

This course is designed for the college-bound student. Honors Physics is a high-level class in which students are expected to have excellent reading skills and study habits as well as a demonstrated ability to work independently. Laboratory activities and group work are both major components of this class. The essential understanding within this course looks at the laws of physics and their application to the world. Units covering measurement, motion, gravitation, vectors, work, power, simple machines, temperature, wave motion, sound, light and electricity are included. A strong emphasis is placed on problem solving and laboratory experiences. In this class, students will be able to evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information. Students will be able to synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

**Environmental Science (362)****Year - 1 Credit**

Using an interdisciplinary approach that combines elements from Earth Science, Biology and Chemistry, with elements of Social Science, Economics and Policy, students understand the interconnectedness of the world we live in. Through readings, class work, field studies, lectures, labs and discussions students will learn how humans play a role in affecting our environment locally and globally. Students will also explore ecosystems and communities, cycles and interrelationships, and local and global issues and solutions. An emphasis will be placed on the study of science and the development of critical thinking and decision-making skills. *This course is weighted on the general scale.*

**Marine Biology/Oceanography (365)****Sem. - .5 Credit**

*Prerequisites: Passing Grade in Earth Science and Biology or instructor approval*

This course involves the study of the oceans, both physical and biological with an emphasis on the ecology of oceans and man's interactions with the oceans. Local aquatic ecosystems and watersheds and how they affect the oceans will also be investigated.

**Human Anatomy and Physiology: Human Biology (360)****Year – 1 Credit**

*Prerequisites: Recommendation of the sending science teacher and completion of either General Biology with 90% or better or Honors Biology with an 80% or better.*

Human Anatomy and Physiology is a year-long college course taught in partnership with the Community College System of New Hampshire (CCSNH). The following enduring understandings will be covered: The human body is organized at different levels from molecules to organ systems that work together to maintain homeostasis. The structure of an organ affects its function and, if homeostasis is not maintained, then the body will not function properly, and illness and disease will result. Highly technical vocabulary and laboratory procedures are stressed. *The AP grading scale is used.*

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

*College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester.*

**Introduction to Astronomy (366)****Sem. - .5 Credit**

*Prerequisites: Recommendation of the sending teacher.*

Introduction to Astronomy is a semester course designed to give students a broad overview of the most interesting aspects of the study of the Universe. The course covers the history of Astronomy (the oldest science) from the ancient Greeks to the most current evolving information available in this ever-

changing field. Topics covered include the history of Astronomy, modern Astronomy and Astronomers, a deep dive into the make-up of the solar system and the cosmos, as well as space travel and exploration. Students will be able to determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to topics covered in this class. Students will also be able to follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Introduction to Engineering Design**

**Year - 1 Credit**

*Prerequisite: Successful completion of Math 8 or by recommendation of the sending teacher.*

This course is ideal for those students pursuing a career in Manufacturing & Technology, as well as Engineering. Through both individual and collaborative team activities and projects, students will solve problems as they practice common engineering design and development protocols such as project management and peer review. Students will develop skill in technical representation and documentation of design solutions according to accepted technical standards, and they will use current 3D design and modeling software to represent and communicate solutions. Units of study include Design Process, Technical Sketching and Drawing; Measurement and Statistics, Modeling Skills; Geometry of Design, Reverse Engineering; Documentation, Advanced Computer Modeling; Design Team, and Design Challenges.

### **Principles of Engineering**

**Year - 1 Credit**

*Prerequisite: Successful completion of Machine Mathematics & 3-Dimensional Drawing or Algebra 1 and Geometry.*

This course builds upon the skills learned in Machine Mathematics and Design of Engineering. Through problems that engage and challenge, students explore a broad range of engineering topics, more rigor is applied to mathematics and physics related topics. The academic topics and hands-on explorations sample subjects that a second-year engineering college student would encounter. These include Statics, Mechanics; Work & Energy, Electrical Systems; Control Systems, Materials; Process Control, Kinematics; Thermodynamics and Fluid Dynamics.

## **SOCIAL STUDIES**

### **American Studies I General (410)**

**Year - 1 Credit**

What major events before and during the early years of the United States shaped our country and contributed to the United States as we know it today? This course is the first half of two-year study of “National” and “State” History. Students will be able to read and/or analyze a variety of historical sources, including primary and secondary sources, maps, photographs and film covering Pre-Columbian America through 1900, tracing the history of the United States from the Age of Exploration to the Progressive Era, with major topics including the American Revolution, the founding of the United States and the Civil War. Students will also be expected to use technology effectively, research independently and think critically and participate in class discussions about various topics as it relates to this period in history. Students will be writing daily in class, including some lengthy writing assignments. This course will also enforce the academic competencies of the HMHS Learning Expectations.

### **American Studies 1 Honors (410H)**

**Year - 1 Credit**

*Prerequisites: Demonstrated proficiency on standardized assessments, 90% or better in Social Studies 8 and recommendation of the sending teacher.*

What major events before and during the early years of the United States shaped our country and contributed to the United States as we know it today? This course is the first half of two-year study of “National” and “State” History. Students will be able to read and/or analyze a variety of historical sources, including primary and secondary sources, maps, photographs and film covering Pre-Columbian America through 1900, tracing the history of the United States from the Age of Exploration to the Progressive Era, with major topics including the American Revolution, the founding of the United States and the Civil War. Students will be expected to read and/or analyze a variety of historical sources, including primary and secondary sources, maps, photographs and film. Students will also be expected to use technology effectively, research independently and think critically and participate in class discussions about various topics as it relates to this period in history. Students will be writing daily in class, including some lengthy writing assignments. This course will also enforce the academic competencies of the HMHS Learning Expectations. ***Students in this course will need to be strong, independent workers and should be prepared for a more rigorous level of assignments, reading and class-discussion based/collaborative work.***

## **American Studies II General (420)**

**Year - 1 Credit**

*Prerequisites: Credit earned in American Studies I.*

How has America shaped and redefined the modern world from the early 20th century to present-day? This year-long course is the second half of a two-year study of United States and New Hampshire history. It covers the period of time from the early 1900s up through present day, tracing the history of the United States from the Progressive Era to the beginning of the 21st Century. Students will be expected to read, analyze, evaluate and differentiate a variety of historical sources, including both primary and secondary sources. Students will also be expected to practice independent research, use technology effectively, participate in class discussions and write critical essays by making logical inferences and citing specific textual evidence. Students will be required to write two independently researched papers, one for each semester.

## **American Studies II Honors (420H)**

**Year - 1 Credit**

*Prerequisites: Recommendation of the sending teacher and completion of either American Studies I General with 90% or better or American Studies I Honors with an 80% or better.*

How has America shaped and redefined the modern world from the early 20th century to present-day? This year-long course is the second half of a two-year study of United States and New Hampshire history. It covers the period of time from the early 1900s up through present day, tracing the history of the United States from the Progressive Era to the beginning of the 21st Century. Students will be expected to read, analyze, evaluate and differentiate a variety of historical sources, including both primary and secondary sources. Students will also be expected to practice independent research, use technology effectively, participate in class discussions and write critical essays by making logical inferences and citing specific textual evidence. Students will be required to write two independently researched papers, one for each semester. ***Students in this course will need to be strong, independent workers and should be prepared for a more rigorous level of assignments, reading and class-discussion based/collaborative work.***

## **U.S. History – AP (430)**

**Year – 1 Credit**

*Prerequisites: Recommendation of the sending teacher and a grade of 80% or better in American Studies II Honors.*

*This course is open to Juniors and Seniors and may, depending on enrollment, be offered every other year.*

How can historical materials be assessed to weigh the evidence and interpretations presented in historical scholarship? The Advanced Placement United States History course will follow the prescribed content as recommended by the Advanced Placement United States History course description book published each year by the College Board: *“The Advanced Placement Program in U.S. History is designed to be the equivalent of a two-semester introductory college or university U. S. history course. In AP U. S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary*



*sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society.” Students in this course will spend a great deal of time preparing for this test including practicing multiple choice and the free response section that is broken down into a Documentary Based Essay Question (DBEQ) and 2 standard essay questions. Occasional HIP sessions may be implemented as needed. **Students will be REQUIRED to do summer reading and writing assignments. Failure to do summer assignments will result in exclusion from the course. Students are expected to take the AP exam at the end of the course (for which there is an approximate fee of \$95).***

***\*Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.***

### **World History (470)**

**Sem. – .5 Credit**

*Open to Juniors and Seniors.*

How have historical developments in ancient societies shaped our world and impacted our lives from ancient times to present day? Students will be expected to read, analyze, evaluate and differentiate a variety of historical sources, including both primary and secondary sources. Students will also be expected to practice independent research, analyze maps, practice independent research, use technology effectively, participate in class discussions and write critical thinking essays by making logical inferences and citing specific textual evidence as it relates to this period in history. In addition to writing critical thinking essays, students will be required to write a lengthy research paper on a subject matter of their choice, given teacher approval. This semester - long course will investigate the roots of world civilizations as they developed from ancient times up to the Renaissance and Reformation, considered to be the beginning of modern world history. *This course is weighted on the general scale.*

### **Civics/Current Events (445)**

**Sem. - .5 Credit**

*Open to Juniors and Seniors.*

How does the government of the United States function and what are the rights, roles and responsibilities of each citizen in this country? This one semester course studies the United States government and the role citizens play in the running of our country, as well as studying both national and international current events. The Civics portion of this course will cover how the United States, state and local governments work, and students will study the rights and responsibilities of American citizens through reading and analysis of primary source documents such as the Declaration of Independence, the Bill of Rights and the U.S. Constitution. The Current Events portion will allow students to gain an understanding of the world today while developing research, media and internet literacy skills. Daily current event analysis homework and participation in class discussions are required. *This course is weighted on the general scale.*

**Sociology (465)**

**Sem. – .5 Credit**

*Open to Juniors and Seniors*

What are the major influences on the development of societies and the individual within a given society? This one semester course will explore various aspects of human behaviors and societies. Major sociological themes are studied, including human society, culture, socialization and social problems. Students will study a variety of countries in order to understand how different cultures and societies develop, and how we are each individually affected by different aspects of our own culture. Students will learn how to conduct sociological research through various social experiments and will acquire skills that enable them to think critically and respectfully of our society and other societies throughout the world. Students will also develop media and internet literacy skills. Participation in class discussions and experiments is required. *This course is weighted on the general scale.*

**Economics (750)**

**Sem. – .5 Credit**

See page 41 in the Business Department for a description of this course.

**Personal Finance (754)**

**Sem. – .5 Credit**

See page 42 in the Business Department for a description of this course.

## WORLD LANGUAGES

### Spanish I (600)

**Year – 1 Credit**

How can connections with people be enhanced through language? This class is the first class in a sequence that develops communications skills in a careful progression taking into account different learning styles. In addition to working on the four traditional skills of language acquisition—speaking, comprehension, reading, and writing—students will also be introduced to the cultural contexts of the Spanish speaking world. Students will learn to communicate in the target language in basic conversation. Students will demonstrate an understanding of ethical behavior, respect and appreciation for global community. Students will be able to communicate on very familiar topics using a variety of words and phrases that have been practiced and memorized. Students can express themselves in lists of words and simple sentences. This class is an immersive class where students will develop skills to understand and be understood in the target language without English. *This course is weighted on the general scale.*

### Spanish II (601)

**Year – 1 Credit**

*Prerequisite: Recommendation of the sending teacher and completion of Spanish I with a 70% or better.*

How can learning and using a language help to understand other cultures? This course builds on those skills that were introduced in the Spanish I. Students will demonstrate an understanding of ethical behavior, respect and appreciation for global community. They will learn to communicate through oral, written and non-verbal means. There is a focus on initiating and participating effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. Students also write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences in the appropriate tense. Students will be able to expand their ability to understand and speak in simple sentences. They are able to express their needs and ideas with some detail. This class is an immersive language class where students will develop skills to understand and be understood in the target language without English. *This course is weighted on the general scale.*

### Spanish III (602)

**Year - 1 Credit**

*Prerequisite: Recommendation of the sending teacher and completion of Spanish II with a 75% or better.*

What does the on-going process of language learning look like? There will be concentration on real world conversational knowledge by using film and song in Spanish. Students will learn to communicate through oral, written and non-verbal means. They will explore real world experiences which provide access to future possibilities. Students will be able to participate in conversations on a number of familiar topics using simple sentences. They will be able to ask pointed questions and be able to respond to questions with some reasoning and detail. Students will be able to understand the

main idea of a short and/or simple text on a familiar topic. This class in an immersive language class where students will refine the skills needed to understand and be understood in the target language without English. *This course is weighted on the general scale.*

### **Spanish IV Honors (603H)**

**Year - 1 Credit**

*Open to Juniors or Seniors Only*

*Prerequisites: Recommendation of the sending teacher and completion of Spanish III with an 85% or better.*

How do art and literature reflect the culture and history of a people? The class will focus on conversation and listening, through class discussion, music and film. There will also be an emphasis on creative writing as well as academic writing. Students will study art and literature from many different cultures where Spanish is spoken. Students will learn to communicate through oral, written and non-verbal means. They will explore real world experiences which provide access to future possibilities. They will write opinion and reflection pieces on topics or texts, supporting a point of view with reasons and information. Recount stories including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. Students will be able to participate in conversations on familiar topics by responding to and asking a variety of questions. Students will be able to communicate on many different topics and understand the main idea of most simple conversations and texts. This class in an immersive language class where students will refine the skills needed to understand and be understood in the Spanish without English. *This course is weighted on the honors scale.*

### **Spanish V Honors (607)**

**Year – 1 Credit**

*Prerequisites: Recommendation of the sending teacher and completion of Spanish IV Honors with an 85% or better.*

How do art and literature reflect the culture and history of a people? This course follows the College Board AP curriculum themes. The course also emphasizes active and meaningful communication in Spanish as well as the ability to understand spoken Spanish in a variety of contexts. Students will be expected to express themselves with reasonable fluency and accuracy in both written and spoken Spanish. Students will enhance their language proficiency and cultural awareness through various forms of input centered around the AP themes. Students will routinely engage in written and oral discussions. Students will learn to communicate effectively through oral, written and non-verbal means. They will explore real world experiences which provide access to future possibilities. Students will write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Student are expected to produce and understand at the intermediate proficiency level throughout the course.

## **AP Spanish Language and Culture (606)**

**Year - 1 Credit**

*Open to Seniors Only*

*Prerequisites: Recommendation of the sending teacher and completion of Spanish IV with a 90% or better. (Note: Future years will require Spanish IV Honors completion).*

How do art and literature reflect the culture and history of a people? This course follows the College Board AP curriculum themes and prepares students to take the AP Spanish exam in May. The course also emphasizes active and meaningful communication in Spanish as well as the ability to understand spoken Spanish in a variety of contexts. Students will be expected to express themselves with reasonable fluency and accuracy in both written and spoken Spanish. Students will enhance their language proficiency and cultural awareness through various forms of input centered around the AP themes. Students will routinely engage in written and oral discussions. Students will learn to communicate effectively through oral, written and non-verbal means. They will explore real world experiences which provide access to future possibilities. Students will write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. **Students are expected to take the AP exam at the end of the course (for which there is an approximate fee of \$95).**

*\*Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.*

## **French I (620)**

**Year - 1 Credit**

How can connections with people be enhanced through language? French is a global language that millions of speakers use daily on six of the world's continents. French I is the first class in a sequence that develops communications skills in a careful progression taking into account different learning styles. In addition to working on the four traditional skills of language acquisition, speaking, comprehension, reading, and writing, students will also be introduced to the cultural contexts of the French-speaking world. Middle school students who successfully complete French I will obtain one high school credit and will move into French II in the ninth grade. Students will demonstrate an understanding of ethical behavior, respect and appreciation for global community. They will learn to communicate through oral, written and nonverbal means. Students will be able to communicate on very familiar topics using a variety of words and phrases that have been practiced and memorized. Students can express themselves in lists of words and simple sentences. Students will write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences in the present tense. *This course is weighted on the general scale.*

**French II (621)****Year – 1 Credit**

*Prerequisite: Recommendation of the sending teacher and completion of French I with a 70% or better.*

How can learning and using a language help to understand other cultures? In this course, the focus is on developing the skills that were introduced in French I. Increased competency is a major objective. Review material is presented in new situational contexts and new material is presented in the form of a drama or narrative with continual emphasis on and comprehension. Students will demonstrate an understanding of ethical behavior, respect and appreciation for global community. They will learn to communicate through oral, written and non-verbal means. There is a focus on initiating and participating effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. Students will be able to expand their ability to understand and speak in simple sentences. They are also able to express their needs and ideas with some detail. *This course is weighted on the general scale.*

**French III (622)****Year– 1 Credit**

*Prerequisite: Recommendation of the sending teacher and completion of French II with a 70% or better.*

What does the on-going process of language learning look like? There will be concentration on real world conversational knowledge by using film and song in French. Emphasis is placed on using the language as a means of self-expression. Students will learn to communicate through oral, written and non-verbal means. Students will be able to participate in conversations on a number of familiar topics using simple sentences. They will also be able to ask pointed questions and be able to respond to questions with some reasoning and detail. Students will be able to understand the main idea of a short and/or simple text on a familiar topic. *This course is weighted on the general scale.*

**French IV Honors (623H)****Year - 1 Credit**

*Open to Juniors or Seniors Only*

*Prerequisites: Recommendation of the sending teacher and completion of French III with an 85% or better.*

How do art and literature reflect the culture and history of a people? The class will focus on conversation and listening, through class discussion, music and film. There will also be an emphasis on creative writing as well as academic writing. Students will study art and literature from many different cultures where French is spoken. Students will learn to communicate through oral, written and non-verbal means. They will explore real world experiences which provide access to future possibilities. They will write opinion and reflection pieces on topics or texts, supporting a point of view with reasons and information. Recount stories including fables and folktales from diverse

cultures, and determine their central message, lesson, or moral. Students will be able to participate in conversations on familiar topics by responding to and asking a variety of questions. Students will be able to communicate on many different topics and understand the main idea of most simple conversations and texts. This class is an immersive language class where students will refine the skills needed to understand and be understood in French without English. This course is weighted on the honors scale.

### **French V Honors (629)**

**Year – 1 Credit**

How do art and literature reflect the culture and history of a people? This course follows the College Board AP curriculum themes. The course also emphasizes active and meaningful communication in French as well as the ability to understand spoken French in a variety of contexts. Students will be expected to express themselves with reasonable fluency and accuracy in both written and spoken French. Students will enhance their language proficiency and cultural awareness through various forms of input centered around the AP themes. Students will routinely engage in written and oral discussions. Students will learn to communicate effectively through oral, written, and non-verbal means. They will explore real world experiences which provide access to future possibilities. Students will write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Students are expected to produce and understand at the intermediate proficiency level throughout the course.

### **AP French Language and Culture (628)**

**Year - 1 Credit**

*Open to Seniors Only*

*Prerequisites: Recommendation of the sending teacher and completion of French IV with a 90% or better. (Note: Future years will require French IV Honors completion)*

How do art and literature reflect the culture and history of a people? This course follows the College Board AP curriculum themes and prepares students to take the AP French exam in May. The course also emphasizes active and meaningful communication in Spanish as well as the ability to understand spoken French in a variety of contexts. Students will be expected to express themselves with reasonable fluency and accuracy in both written and spoken French. Students will enhance their language proficiency and cultural awareness through various forms of input centered around the AP themes. Students will routinely engage in written and oral discussions. Students will learn to communicate effectively through oral, written and non-verbal means. They will explore real world experiences which provide access to future possibilities. Students will write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. This course is weighted on an AP Honors scale. ***Students are expected to take the AP exam at the end of the course (for which there is an approximate fee of \$95).***

***\*Students not taking the AP Exam at the end of any College Board Designated AP Class will have their grading scale moved to Honors.***

# **BUSINESS EDUCATION & COMPUTER SCIENCE/DIGITAL LITERACY**

## **Introduction to Computers (749)**

**Sem. – .5 Credit**

*Required for graduation. Students are encouraged to take this course as a Freshman or Sophomore.*

This course provides instruction in basic computer hardware and operating systems that support software applications. Concepts and applications dealing with programming, software integration, Internet use, and future technological trends will be incorporated. Instruction in software concepts using the Microsoft Office suite software package which includes word processing, spreadsheet, presentation and publishing software will be introduced. Also, the importance of proper file management and computer equipment will be discussed and utilized throughout the course. Students will be exposed to the ethical and legal issues related to technology and online learning environments. *This course is weighted on the general scale.*

## **Economics (750)**

**Sem. – .5 Credit**

*Required for graduation. Students are encouraged to take this course as a Junior or Senior*

This course provides an introduction to the American Free Enterprise System. In this course students will learn to identify the ways in which society organizes its limited resources to satisfy unlimited wants. Students will be able to recognize and explain the interaction of various roles of consumers, businesses and the government within our economic structure. They will understand and be able to articulate the main types of business firms, market structures and the risks and benefits of entrepreneurship as well the key factors involved in the United States' economic relationships with other nations and economic systems. Students will understand the role the stock markets play in the economy and will be able to understand some of the reasons stock markets fluctuate. *This course is weighted on the general scale.*

## **Introduction to Business (757a)**

**Sem. – .5 Credit**

*Passing grade in Economics or instructor approval required*

This course is designed to familiarize students with different aspects of the world of business. Students will explore the areas of business management, entrepreneurship, marketing, business ethics and international business. Students will have the opportunity to investigate opportunities in different business careers. Introduction to Business includes an emphasis on projects, with students completing projects both individually and in teams for each of the different modules.



## **Personal Finance (754)**

**Sem. – .5 Credit**

*Open to Juniors and Seniors and is required for graduation.*

*Prerequisite: Credit earned in Economics.*

This course provides students with skills they will need in life to make valuable decisions regarding money management, career planning, saving and investing, credit management and retirement planning. Students will apply rational decision-making processes in their roles as citizens, workers, and consumers. They will be able to evaluate services provided by financial institutions. Emphasis will be placed on the responsible role of the student as they enter the adult world and deal with choices regarding credit, including cost of credit and legal aspects of credit use. They will be able to understand credit ratings and credit reports. Further, students will know the services of banking institutions (savings accounts, checking accounts) and other banking services and well as investment risks and potential returns. Students will be able to prepare simple tax returns using tax preparation software. Through project learning, students will understand the process of car buying and apartment rentals. *This course is weighted on the general scale.*

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

***College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester.***

## **Economics and Personal Finance Combined (752)**

**Sem. – 1 Credit**

*Prerequisites: This is a special offering not open to all students. Instructor approval is required.*

This course will provide a basic understanding of economics needed for personal financial decision making. Students will be able to define economics terms, illustrate an understanding of economic and personal finance concepts, and be able to apply them in their own lives.

## **Accounting I (755)**

**Sem. – 1 Credit**

Accounting I is designed to give basic understanding of manual accounting principles, concepts and procedures. Accounting I is a semester-long college course taught in partnership with the Community College System of New Hampshire (CCSNH). Students will be able to apply Generally Accepted Accounting Principles for an accounting system for a single proprietorship service-based industry. Upon completion of the course students will be able to set up and maintain financial records for a company for one complete accounting cycle including journalizing, posting, preparing a worksheet, adjusting and closing entries, and preparation of financial statements used to analyze business activities and make choices for the future. Students will be required to use Excel to prepare accounting documents. Prior knowledge of Excel helpful but not required. *This course may be used for math credit. This course is weighted on the AP scale.*

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

***College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester.***

## **Accounting II (756)**

**Sem. – 1 Credit**

*Prerequisite: Credit earned in Accounting I.*

Accounting II is designed to give basic understanding of manual accounting principles and concepts as well as procedures for a merchandizing company run as a corporation. Students will apply concepts of accounting previously learned and will know how to keep accurate records using multiple journals, a cash control system and tax procedures that apply both to payroll and the corporation. *This course may be used for math credit. This course is weighted on the AP scale.*

**To receive college credit \$150.00 is due at registration (generally by the end of the first month of the class). The cost is subject to change.**

*College credits: Students will receive three transferable college credits from River Valley Community College in Claremont NH, upon receiving a grade of C or better for the semester.*

## **Computerized Accounting (757)**

**Sem. – .5 Credit**

*Prerequisite: Credit earned in Accounting I.*

Computerized Accounting is designed to give students a basic understanding of computerized accounting systems. Using QuickBooks, students will use previously learned concepts of accounting as they work through problems associated with a fictitious photography company that supplies both services and products run as a corporation. Students will know how to keep accurate records, set up customers and vendors, prepare invoices, process accounts payable, accounts receivable and payroll as well as manage inventory and prepare reports. *This course is weighted on the general scale.*

## **Parallax Microcontrollers/Robotics Lab (762)**

**Sem. – .5 Credit**

This full-semester course will explore the use of microcontrollers and robotics using *Parallax* products. In the first half of the semester, students will:

- Build simple circuits with schematics and wiring diagrams.
- Write programs in PBASIC to control the circuits.
- Send signals by blinking LEDs.
- Sense contact with pushbuttons
- Read a dial using a potentiometer.
- Measure light with a phototransistor
- Control motion with a servo motor
- Play tunes on a piezo speaker.
- Display data on a 7-segment LED.
- Combine several circuits to prototype an invention.

The second half of the semester will introduce the Boe-Bot which takes about 2 hours to build. Projects involving experimentation with the Boe-Bot will include the use of wiring, programming with P-Basic robotics language, and experimentation with a large array of programs which explore the many sensors,

electronics to include breadboards, circuits, resistors, LED's, and more. *This course is weighted on the general scale.*

**Drone Systems (762DE)**

**Sem. – .5 Credit**

This course is normally conducted in the spring semester. Students will learn various aspects about the safe operation of both rotary and fixed wing Unmanned Aircraft Systems (UAS). Topics include regulatory guidance, aerodynamics, weather, airspace systems, aircraft systems and risk management. In addition to academics, students will gain hands-on experience with both simulation programs and operation of several UAS “drone” systems. These include small hobby remotely control systems and medium size automated commercial systems. Program of aircraft and flight profiles with various “SMART” devices will be explored. Students will also research commercial applications of UAS and career opportunities. Upon successful completion of this course, students will be better prepared to take the Federal Aviation Administration (FAA) Commercial Remote Pilot Examination. *This course is weighted on the general scale.*

**Robotics Team FIRST Teach Challenge**

**Year – 1 Credit**

Robotics Team is a course that works with FIRST NH. FIRST Tech Challenge teams are challenged to design, build, program, and operate robots to compete in a head-to-head challenge in an alliance format. Guided by adult coaches and mentors, students develop STEM skills and practice engineering principles, while realizing the value of hard work, innovation, and working as a team. The robot kit is reusable from year to year and can be coded using a variety of levels of Java-based programming. Teams design and build robots, raise funds, design and market their team brand, and do community outreach to earn specific awards. Participants are eligible to apply for \$80M+ in college scholarships. Each season includes up to 4 qualifiers spread out from November-January and concludes with the NH state championship event in February or beginning of March. All of the qualifiers and state championship events take place on Saturdays in different locations around the state.

## **FINE & PERFORMING ARTS**

### **Art Exploratory (700a)**

**Sem. – .5 Credit**

This course is designed to introduce the student to a breadth of art media providing a comprehensive visual foundation and appreciation of art as it will be encountered in high school and beyond. Students will explore a wide variety of media in both 2- and 3-dimensional art projects. The emphasis will be on creative problem solving using the elements and principles of design. Students will maintain a sketchbook for homework. Students will also be responsible for writing artist's statements for evaluating and reflecting on their effort and artwork. Students will write weekly reports on contemporary and historical artists and movements. A digital portfolio of completed projects will be kept to monitor progress. Students will be able to apply the skills drawing, painting and 3D disciplines to generate, conceptualize, and organize artistic ideas. *This course is weighted on the general scale.*

### **Advanced Art (701a)**

**Sem. – .5 Credit**

*Prerequisite: Credit earned in Art Exploratory.*

In this guided studio setting students will have an opportunity to further develop skills that were introduced in Art Exploratory. This course is intended to provide students with the opportunity to explore projects with greater depth and intensity. The creation of art will focus on the personal development of style and theme. Students will further develop an understanding of visual language. Upon completion of assignments there will be critiques where students will be responsible for critical responses for their artwork and that of their peers. Students will write artist's statements for evaluating and reflecting on their effort and artwork. Students will maintain a sketchbook. The sketchbook will serve as a visual journal for developing ideas and skill practice. A digital portfolio of completed projects will be kept to monitor progress. Students will be able to apply the skills of drawing, painting and 3D disciplines to generate, conceptualize, and organize original artistic ideas. Students will be able to refining and complete artistic ideas. *This course is weighted on the general scale.*

### **Digital Imaging (707a)**

**Sem. – .5 Credit**

*Open to students in grades 10 – 12.*

*Prerequisite: Credit earned in Art Exploratory.*

This course is designed to introduce and explore the basic concepts of digital editing through the use of digital photography and Adobe editing software. Students will learn how to shoot pictures with a digital SLR camera and manipulate them using Adobe Photoshop, while learning and applying the elements and principles of design. Written and oral critiques will be required to demonstrate an understanding of technical and aesthetics aspects. A digital portfolio of completed projects will be kept to monitor progress. *This course is weighted on the general scale.*

**HMHS Pacer Morning News (709A-Fall, 709B-Spring)**

**Sem. – .5 Credit**

*Open to Juniors and Seniors*

The course is designed to develop skills for producing the Hinsdale Middle High School morning news as well as field pieces that will appear on the program. Students will develop an advanced understanding of how to work with digital video equipment as well as how to use video production programs. Students will be responsible for writing, planning, organizing, and producing the news. Teamwork is essential because the class is the production crew that will produce the morning news and stories for the morning news. The ability to independently plan productions and meet strict deadlines is required. Grading will be based on the ability to work as a team member and to independently plan productions. Students will be able to apply skills and language of a media arts to convey meaning and communicate ideas by analyzing developing and performing presentations. ***It is preferred that students take this course both semesters to allow for mastery. Students may take this course more than once. This course is weighted on the general scale.***

**HHS Performance Music (736A-Fall, 736B-Spring)**

**Sem. – .5 Credit**

Through the study, practice, and performance of a wide variety of musical styles and genres students will gain a better understanding of music as a performance art. Every student enrolled in the class will be expected to perform in and out of the classroom. While prior knowledge of music theory, an instrument or vocal techniques are helpful, they are not a requirement of the class. All students enrolled will develop and follow practice plans to better understand the use of melody, harmony, and rhythm. Fundamental music reading and ear training skills will be developed as a class and individually. Students will also learn how to read and compose music using standard notation and music technology. Students will have access to a variety of instruments that are commonly found in a jazz/pop/rock ensemble. It is an expectation of the class that the practice of instruments and voice continue independently beyond the school day.

As part of the common core initiative, students will practice speaking and listening skills through intense collaboration with other students in the class. There is a strong emphasis on Hinsdale's social learning expectations of respecting other's ideas and attitudes and having a positive attitude toward working to solve problems both individually and collaboratively. Students will write practice plans, journals and will be required to complete reflections that analyze and critique performances. Students will use technology to research and create informative and explanatory materials, and to write and record music. Daily participation is a key component to each student's success in the class. Students may take this course more than once and they are encouraged to take this course both semesters during the year to allow for maximum growth and development in their chosen area of study. ***Students may take this course more than once. This course is weighted on the general scale.***

**Theater (721)**

**Sem. - .5 Credit**

This course is designed for both the experienced and novice actor. Students will be introduced to different facets of theatre arts such as acting, play writing, and technical theatre. The course may cover such varied dramatic arts as mime/pantomime, improvisation, oral interpretation, radio theater, storytelling, monologues, scenes and one-act plays. Participants will be required to take part in a public performance outside of school hours. ***This course is weighted on the general scale.***

## **FAMILY AND CONSUMER SCIENCES**

### **Parenting (780)**

**Sem. – .5 Credit**

*Usually offered in the fall.*

Students will be able to evaluate the effects of parenting roles and responsibilities on strengthening the well-being of individuals and families. This class explores various family forms and functions, the cycle of family development, and how the parenting role changes through the lifespan as children grow. Conception, pregnancy, and prenatal development and care are discussed with an emphasis on abstinence to avoid unplanned pregnancies. The Safer Choices Curriculum is embedded to help make students aware of choices and decisions that they will face both now and in the future. *This course is weighted on the general scale.*

### **Child Development (781)**

**Sem. – .5 Credit**

*Prerequisite: Recommendation of the sending teacher and credit earned in Parenting.*

*Usually offered in the spring.*

Students will be able to analyze factors that influence human growth and development. This course provides students the knowledge needed to work with and care for children as they grow. All areas of development – physical, intellectual, social and emotional – are addressed so students can better understand, assess, and meet the needs of children. This course will focus on individual student engagement in an effort to understand the emotional, physical and social health of children. *This course is weighted on the general scale.*

### **Foods (786)**

**Sem. – .5 Credit**

Students will be able to demonstrate food preparation methods and techniques for all menu categories to produce a variety of food products. This course is a lab-based food and nutrition program where students learn how to make healthy and nutritious food reflecting current national guidelines; how to prepare foods, appreciate food diversity, how science and technology impact foods and nutrition. *This course is weighted on the general scale.*

**Chefs (787)****Sem. – .5 Credit**

*Students are encouraged to take this course as a Junior or Senior/Prerequisite: Credit earned in Foods.*

Students will be able to demonstrate advanced food preparation methods and techniques for all menu categories to produce a variety of food products. This course takes the complex world of food and breaks it into individual units of study. Students will choose several units of interest for in-depth study and creation of more complex recipes. Meal planning and preparation topics are studied. *This course is weighted on the general scale.*

**Sewing and Design (FCS783)****Sem. – .5 Credit**

Students will be able to demonstrate skills needed to produce apparel and textile products. This course teaches the basic use of sewing machines and fabric construction techniques. Students are given information and practice to learn basic sewing skills in a hands-on format. Learning is as rapid and in depth as students' interests take them. Content builds from basic sewing skills to project construction. Project examples include pillowcases, table runners, stuffed animals, tote bags, patchwork pillows, etc. Students will be able to choose and complete their own individual projects. *This course is weighted on the general scale.*

## **PHYSICAL EDUCATION/HEALTH**

### **Physical Education I (501A)**

**Sem. – .5 Credit**

*Encouraged for Freshmen and Sophomores*

The Hinsdale Physical Education program intends to provide all students with cognitive, physical, and affective knowledge they will need to pursue lifelong health and wellness. During this course students of all abilities will learn to be competent movers through a selection of activities in the following areas: individual sports, team sports, and lifetime activities. Throughout these experiences, students will learn about the benefits of exercise, how it is enjoyable, their own fitness needs, and how to maintain physical activity throughout their lives. Students will know how to design a fitness program and demonstrate progress towards their fitness goals. Students will be able to understand, describe and apply health and skill related fitness concepts as required competencies developed by National and State Standards in Physical Education and the Society of Health and Physical Educators. Other lifetime skills promoted include leadership, building self-confidence, and sportsmanship. Additionally, students will continue to improve motor skills, complete homework as assigned, be personally and socially responsible and be assessed in a variety of methods while working towards whole person wellness as defined by 21st Century learning expectations. This course is weighted on the general scale.

### **Personal Fitness (501p)**

**Sem. – .5 Credit**

Personal Fitness is a course devoted to health-related fitness components. A variety of assessments will be used to assess personal fitness and subsequently set goals while tracking progress at several intervals throughout the semester. Competencies will include understanding and describing training theories, anatomy, and physiology while applying a variety of conditioning methods. Students will create a plan for their personal fitness based on their fitness assessment, demonstrate progress towards their fitness goals as well as address personal nutritional needs based on their activity levels. Specific workouts will include the use of free weights, cardio and weight machines, plyometrics, stability balls and more. This course is weighted on the general scale.

### **Net Sports**

**Sem. - .5 Credit**

Prerequisite: Credit earned in Physical Education I.

This course is designed to increase students' fitness, skills and knowledge in the area of Net Sports. These sports include, but are not limited to pickleball, tennis, badminton, volleyball and nitroball. While continuing to develop proficiency in motor skills and movement patterns, students will also need to demonstrate a deep understanding of tactics and strategies used during game play. Students will continue to monitor their personal fitness through participating in a fitness assessment, setting goals and documenting progress towards those goals throughout the semester. Additionally, students will continue to complete homework as assigned, be personally and socially responsible and be assessed in a variety of methods while working towards whole person wellness as defined by 21st Century learning expectations. This course is weighted on the general scale.



## **Invasion Games**

**Sem. - .5 Credit**

Prerequisite: Credit earned in Physical Education I.

This course is designed to increase students' fitness, skills and knowledge in the area of Invasion games. These sports include, but are not limited to soccer, ultimate frisbee, football, floor hockey, and lacrosse. While continuing to develop proficiency in motor skills and movement patterns, students will also need to demonstrate a deep understanding of tactics and strategies used during game play. Students will continue to monitor their personal fitness through participating in a fitness assessment, setting goals and documenting progress towards those goals throughout the semester. Additionally, students will continue to complete homework as assigned, be personally and socially responsible and be assessed in a variety of methods while working towards whole person wellness as defined by 21st Century learning expectations. This course is weighted on the general scale.

## **Individual Physical Education Program**

**Sem. – .5 Credit**

*Prerequisite: Credit earned in Physical Education I.*

With approval, students may use an Extended Learning Opportunity to meet the second .5 credit of required physical education. Students may also utilize a Hinsdale sponsored JV or Varsity athletic experience to satisfy the second .5 of their PE requirement. Students must meet with the Physical Education Department during the prior semester to start any independent sports participation option in physical education. Students choosing this option will be assessed using the five National and State Physical Education standards to achieve credit. This course is weighted on the general scale.

## **Health (315)**

**Sem. – .5 Credit**

The Joint Committee on National Health Education Standards defines health literacy as “the capacity of individuals to obtain, interpret and understand basic health information and services and the competence to use such information and services in ways that enhance health.” This required course is designed to motivate and assist students to maintain and improve their health, prevent disease, reduce risk behaviors, increase health literacy enabling a student to make informed and knowledgeable health decisions. Specific content includes all areas stipulated in the New Hampshire and National Health Standards. Methods include allowing students to develop and demonstrate increasingly sophisticated health related knowledge, skills and practices while following the Hinsdale’s social learning expectations, respecting others’ ideas and attitudes, positive attitude toward working to solve problems both individually and collaboratively. Techniques to ensure success in these areas include practicing reading, writing, listening, speaking, and language skills, as referenced by the Common Core anchor standards. All instruction will be presented in diverse media and formats such as presentations, research, projects, Keys to Literacy writing, role play and varied assessments to stimulate understanding of health concepts and acquisition of skills to use the information to promote health. *This course is weighted on the general scale.*

## **SUPPLEMENTAL PROGRAMS**

### **Advisory/SEL**

**Year – ¼ credit**

The purpose of advisory is to create a cohesive, ongoing community of learners and to provide all students with a connection to a staff member who will guide and support them with their academic, personal, and social emotional growth. This includes but is not limited to increased social emotional fluency through direct curriculum participation and group processing, participation in team building activities and initiatives, listening to vital school information and announcements, participation in school/grade wide advisory events and lessons. This content will be informed by 21st century learning expectations. Supported by counselors and administration, advisory teachers will provide direct communication to families, facilitate social emotional learning, and will monitor individual academic progress. *This is a required credit driven course. Each student will be given a pass-fail mark based on their involvement.*

### **Life Skills**

Life Skills is a credit bearing special education program designed to service students with disabilities. The curriculum focuses on functional academics geared toward preparing students for independent living. Students learn about and participate in structured social interactions. Instruction is provided in money and time concepts, cooking, organizational strategies, decision making and problem solving. Students have the opportunity to practice role playing real-world scenarios and to participate in the school's Extended Learning Opportunities (ELO) program to gain hands on experience with job exploration skills. The Life Skills program reinforces the academic competencies of the HMHS Learning Expectations, a copy of which can be found at the beginning of this document. Differentiated levels may be offered at the middle and high school. *Enrollment in these classes are by request of the Special Education Department only.*

### **Assisted Study**

Assisted Study is a Guided Study course that provides students with the opportunity with assistance and time to complete classroom assignments or school projects. Students typically work on their own or in a small group that is structured and supported by the supervising Special Educator. This is also a time for the Special Educator to complete Vocational training and Education and provide the Specially Designed Instruction within the Student's Individual Educational Plan.

## **DRIVER EDUCATION**

### **Driver Education**

**Sem. – .5 credit**

*Prerequisite: Student must be at least 15 .5 prior to the course start date and 16 prior to the end of the course. Course must be offered at Hinsdale High School in order to receive credit.*

***Note: Driver Education is not subject to add/drop. Students must commit to the course and may not add the course after the parent meeting prior to the first class.***

This course will allow a student to get their driver education certificate upon successful completion of the class. The class follows the New Hampshire Drivers Education Risk Prevention Curriculum Guide. There are 10 parts that cover all the basics of learning both in-classroom and behind-the wheel lessons. The primary focus of this class is to learn safe and responsible driving. Students must receive an 80% average for the course to qualify for the certificate. *Due to state laws, students may not miss more than 4 hours of class time. Should attendance become an issue, students will be assigned an alternate course.*

**This course requires an application and a fee to be determined prior to starting the class which must be provided to the principal's administrative assistant.**

*Maximum number of students is 12. Preference is given to Juniors and Seniors and there may be a waiting li.*

## **EXTENDED LEARNING OPPORTUNITIES (ELO)**

The NH Department of Education supports and encourages school districts to adopt policies that encourage "extended learning". Hinsdale High School provides Extended Learning Opportunities to ALL students and defines ELO as, "Learning at any time, in any place and in any form".

At HMHS Extended Learning Opportunities are:

- Student designed and student driven. Students are encouraged to follow their passion and explore new areas of interest.
- Overseen by a certified school personnel.
- Competency based.
- Assessed on mastery of competencies.
- Credit bearing (core and elective)
- Aligned with local curriculum frameworks.
- Rigorous in academic content
- Embedded with HMHS 21st Century Learning Expectations
- Flexible and fluid in the progress of the four components: Research, Reflection, Project, and Presentation
- Based solely on mastery of required competencies not on the time taken to complete the competencies.
- Developed with a community business/partnership that brings mentors on board to teach side by side with the certified school personnel and ELO Coordinator while keeping the student at the center.
- Assessed for credit at a school-wide final exhibition of learning.
- Endorsed by the University System of NH. In addition, many colleges in the New England area have endorsed or otherwise supported competencies/credits earned through ELO programs.

# WINDHAM REGIONAL CAREER CENTER

WRCC courses are available to Sophomores – Seniors.

The Windham Regional Career Center offers coursework in the following areas:

## **Introductory Programs**

Pre-Tech Exploratory  
Pre-Tech Foundational Introduction to  
Manufacturing/Design

## **Business**

Personal Finance  
Accounting  
Computer Applications  
International Business  
Marketing, Sales and Service

## **Health Careers**

Principles of Biomedical Science **cc**  
Human Body Systems **cc**  
Medical Interventions **cc**  
Biomedical Innovation **cc**  
Human Growth and Development  
Nutrition  
Medical Terminology  
Licensed Nursing Assistant

## **Arts and Communication**

Introduction to Dance  
Performing Arts-Dance  
Performing Arts-Circus  
Performing Arts-Acting or Directing  
Filmmaking and Digital Editing

## **Protective Services**

Criminal Justice  
Firefighter  
Emergency Medical  
Responder

## **Technology and Trades**

Automotive Technology  
Construction and Architecture  
Culinary Arts  
Electricity and Speaker Building  
Electronics/Photonics  
Engineering and  
Advanced Manufacturing  
Forestry/Natural Resources

Geometry in Construction **cc**

**cc** Indicates course offers college credit.

The WRCC classes do not begin until 8:45. Given this, students must be on track, with sufficient credits, to graduate in order to fit many of these classes in their schedule. ***For further information on eligibility and applications please discuss this option with the high school counselor.***

## PATHWAYS

Pathways provide a means for students to prepare for careers in selected areas of interest in a competency-based manner that supports individualized learning. There are presently two pathways available for Hinsdale High School students: Business Management and Science, Technology, Engineering, and Mathematics (STEM). Each pathway has prescribed courses of study to support students in their endeavors. The pathway experience will culminate with a Capstone Activity or an Extended Learning Opportunity which supports the area of study. Industry recognized credentials can be obtained as available in each area. Faculty mentors will also be assigned to pathway students to assist them in their journey.

### **Business Management Pathway**

Students wishing to pursue careers as Managers, Accountants, and/or Entrepreneurs would complete core and elective courses in those fields each year. The Business Management track prepares students for related trades, primarily in the field of Business. Guest speakers working in & owners of local businesses and capstone activities provide additional hands-on experience. Industry recognized credentials in Workless Places, as well as college credit allow students the opportunity to demonstrate for employers a commitment to continuing education in the Business discipline as well as competitive & quality employment applications. Below are the suggested paths for the core Business Management track courses of study. Guidance and faculty mentors will assist students with unique situations. Scheduling will be alternate semesters, years, or as enrolment dictates with the exception for Economics, Personal Finance, Accounting I, and Business Math I

| <b>Business Management Pathway</b> |                                  |   |
|------------------------------------|----------------------------------|---|
| <b>Year</b>                        | <b>Mathematics</b>               | <b>Business</b>   |
| Grade 9                            | Algebra 1                        | Economics   |
| Grade 10                           | Business Math I                  | Personal Finance  |
| Grade 11                           | Business Math II                 | Accounting I<br>Accounting II   |
| Grade 12                           |                                  | Introduction to Business<br>Introduction to Business<br>Management/Leadership |
| Grade 12                           | Pathway Capstone Activity or ELO |   |

## STEM Pathway

The STEM pathway offers several sub-options or tracks under the umbrella of STEM disciplines. Students wishing to pursue careers as Scientists or Mathematicians would complete core and elective courses in those fields each year, whereas those interested in the field of Engineering would complete a blended pathway consisting of both Scientific and Mathematical studies. The Manufacturing and Technology track prepares students for related trades, primarily in the field of Machinery. Field trips to local businesses and capstone activities provide additional hands-on experience. An elective course in Drone Systems is also available for those interested in pursuing certification as a Commercial Drone Pilot. Below are the suggested paths for the core Engineering and Technology & Manufactory track courses of study. Guidance and faculty mentors will assist students with unique situations. The Drone Systems course can be taken at any time during the High School years.

| <b>Engineering Pathway</b> |                                  |   |
|----------------------------|----------------------------------|---|
| <b>Year</b>                | <b>Mathematics</b>               | <b>Science</b>                          |
| Grade 9                    | Algebra 1                        | Design of Engineering                   |
| Grade 10                   | Geometry<br>Algebra 2            | Biology                                 |
| Grade 11                   | Pre-Calculus                     | Chemistry                               |
| Grade 12                   | AP Calculus                      | Physics<br>Principles of<br>Engineering |
| Grade 12                   | Pathway Capstone Activity or ELO |   |

| <b>Manufacturing and Technology Pathway</b> |  |                              |
|---|--|------------------------------|
| <b>Year</b>                                 | <b>Mathematics</b>                         | <b>Science</b>               |
| Grade 9                                     | Algebra 1                                  | Design of Engineering        |
| Grade 10                                    | Geometry                                   | Biology                      |
| Grade 11                                    | Machine<br>Mathematics<br>& 3D<br>Printing | Chemistry                    |
| Grade 12                                    |  | Principles of<br>Engineering |
| Grade 12                                    | Pathway Capstone Activity or ELO           |                              |

## MIDDLE SCHOOL CLASSES

### Grade 6 Language Arts

Grade 6 Language Arts Sixth grade uses a variety of resources within the Reading Street series such as the practice, grammar, and spelling books. Within those three resources are vocabulary, language arts, and reading genres are intertwined within each unit. The focus is on comprehension, using the analytical skills of: sequencing of events, comparing and contrasting, and author's purpose. Materials used are literacy books based on reading levels from MAP data, Reading Street leveled readers, and miniseries collection for critical reading. Students are required to use their organizational skills to complete tasks and manage their time wisely in class and complete at-home activities. Students engage in their own learning while taking responsibility and ownership through participation, self-evaluation and reflection. Students will also be able to communicate effectively through narrative, informative, and argumentative writing.

### Grade 6 Math

The four critical areas that are focused on in sixth grade math are ratios/rates, rational numbers, algebraic expressions/equations, and beginning statistics. Problem solving is a recurring theme within the math curriculum. Students build upon their previous knowledge and experience with numbers in order to understand ratio concepts and use ratio reasoning to accurately solve problems that include both whole numbers and fractions. The rational number system is also expanded to begin including negative numbers. Algebraic expressions, equations, and inequalities are introduced during this year and students use these concepts to represent and analyze relationships that exist between variables in given situations. Algebra is also part of the discussion, development, and justification of formulas used to solve both real-world and mathematical geometry problems. Lastly, in addition to developing algebraic and ratio reasoning, students also learn how to describe and analyze numerical data sets by using different statistical measures such as median and mean.

### Grade 6 Science

Students in the sixth grade engage in inquiry by observing, questioning, and analyzing information ranging from our galaxy to Earth's land features. Through the combination of text, media, and hands on activities students engage independently and collaboratively within the curriculum. The Science Experiments class helps support hands-on activities within the curriculum. Students gather and interpret information about the earth, which is recorded in their science experiment books, notes, and homework assignments. Through these tools and reflections students are able to compare observations and draw conclusions. Students learn how organizational skills to keep an up to date science binder and manage their time wisely within science experiments.

### Grade 6 Social Studies

Students in the sixth-grade focus on ancient world history that takes you from Europe to China and also encompasses Greece, Egypt, and Africa. Students will use organization, as well as independent



problem solving and task completion to complete projects that will describe how regions preserve culture and traditions. In addition, they will utilize maps, globes, charts and models to analyze patterns. Students do a variety of hands-on activities within the curriculum. Using written and oral means, students will identify countries and their governments as well as describe the major migration of the first humans in Africa to the rest of the world.

### **Grade 7 English**

In English 7, students must read and comprehend grade-level fiction and nonfiction texts. They must also be able to communicate their ideas orally and through written means. Students read closely, applying reading strategies to draw inferences and analyze texts, and integrate outside knowledge in their reflections and discussions of the texts. Not only are students required to determine the main ideas of what they read, but they also need to cite textual evidence to support their argument in extended responses. Understanding author's craft through studying literary devices, diction, and format is emphasized. Students are required to participate as members of a literate community, discussing literature and writing, and listening respectfully to others. This course will address the following: Are students effectively reading and analyzing texts so that they can coherently formulate a summary based off of main ideas? Can students build and defend a thesis statement that serves as the central focus for an argumentative writing assignment? Can students make connections to texts through either real-life experiences, media sources, or other texts that they have read and are they able to support those connections with ample evidence?

### **Grade 7 Math**

In Math 7, students continue to build upon the knowledge gained in previous years while focusing on four main areas: proportional reasoning, using operations with rational numbers to work with algebraic expressions and linear equations, geometric figures, and data analysis. Students extend their understanding of ratios to include proportions and apply proportional reasoning in a wide variety of percent and scale drawing problems. Students continue to develop a stronger understanding of the different ways to represent rational numbers, as well as the algorithms for the operations performed. The properties of operations are used to understand and solve real-world and mathematical algebra and geometry problems, including linear equations, angle measures, area, surface area, and volume. Students also begin using statistics to compare two or more data distributions, make inferences about sample and population groups, and explore/develop probability models for simple and compound events.

### **Grade 7 Science**

In Life Science 7, students discover, interpret, and learn the vernacular of the class ranging from human body systems to genetics and heredity. Integration of multiple informational texts and outside resources allow students to gain hands-on experience with the words and phrases of the class through educational games and other media. Students evaluate how two or more texts discuss a subject through

similar or different viewpoints while taking note of the tone, connotative, and figurative meanings presented to the reader. Through close analytical reading students will be able to read independently and proficiently as they draw conclusions from their text. To support the readings in class, students work on a related experiment for each new unit in which they gather data, write a hypothesis, find supporting evidence, and draw conclusions based on their experiments. These experiments and lab data are then summarized in a lab report showing the progression of their thinking and knowledge during the lab process. At the conclusion of this course students will be able to perform and write a comprehensive lab report as well as see how the human body systems work together to maintain homeostasis.

### **Grade 7 Social Studies**

In Social Studies 7, students mainly study of world geography with content that includes Latin America, Asia, and Australia. Our guiding question for this course is, “What are the physical and human characteristics of the geography of selected regions of the world?” As part of the study of geography, students will demonstrate the ability to use maps, mental maps, globes, and other graphic tools and technologies to acquire, process, report, and analyze geographic information while gaining understanding of the physical and human geographic features that define places and regions as well as how culture and experience influence people's perceptions of places and regions.

Through substantial writing assignments, students will cite specific textual evidence to support analysis of primary and secondary sources while analyzing the relationship between a primary and secondary source on the same topic. Students in this course will measure their progress toward these Common Core standards, and the content, by using the HM/HS school-wide rubrics.

### **Grade 8 English**

In English 8, students must read and comprehend grade-level fiction and nonfiction texts. They must also be able to communicate their ideas orally and through written means, with particular emphasis on writing narrative, informational, and argumentative papers. Students read closely, applying reading strategies to compare and contrast texts. In extended responses, students routinely cite evidence to support their analysis of texts. With increased study of the author's craft, students evaluate not only the writer's point of view but also the social and historical context of his or her work. Students are required to participate as members of a literate community, discussing literature and writing, and listening respectfully to others.

### **Grade 8 Math**

In the 8<sup>th</sup> grade math class students will continue to build on the concepts introduced in previous years. Instructional time will focus on the areas of reasoning as it relates to expressions and equations especially linear equations, and understand slope, functions and their use to describe quantitative relationships as well as describe how they are reflected in different representations, and analyzing two- and three-dimensional shapes, as well as understanding and applying the Pythagorean Theorem. Students will use problem solving as well as critical thinking tools to complete tasks. Students will produce clear, coherent, and effective informative writing.

### **Algebra I Honors**

For students who excel on an Algebra entrance test, Algebra I Honors may be taken for high school credit. See page 17 for more information about the course.

### **Grade 8 Science**

In grade 8, physical science students will use a variety of tools to perform inquiry tasks. Through the use of informational texts students will be able to cite textual evidence, as well as determine a central idea or conclusion and provide an accurate summary. Using critical thinking as well as problem solving students will perform experiments that include following multistep procedures, taking measurements and performing other technical tasks. Instruction will include the nature of science (including safety, variables, graphing and the SI system), matter, motion including force, energy, electricity and waves. At the conclusion of the year students will understand the importance of lab safety as well as how matter, forces, and energy are interconnected. The students will also have to demonstrate their competencies with the use of a portfolio. As a part of the regular course work, students will be able to read, analyze, and write with appropriate citations to support various extended response scenarios.

### **Grade 8 Social Studies**

“What were some of the political, cultural, geographic, and economic conditions in selected areas of the world from about 1500 A.D. up to the present?” Eighth Grade Social Studies is a year-long course which includes the study of world history from the end of the Middle Ages to contemporary times. As part of the study of history, students will demonstrate an understanding of major events, ideas and issues pertaining to the history of governance through the study of the interactions of peoples and governments over time. Students will also demonstrate an understanding of the changing forms of production, distribution and consumption of goods and services over time. Through various writing assignments, students will determine the central ideas or information of a primary or secondary source and provide an accurate summary of the source as well as analyze the relationship between a primary and secondary source on the same topic. Students in this course will measure their progress toward these Common Core standards, and the content, by using the HM/HS school-wide rubrics.

### **World Language**

Students in the 8<sup>th</sup> grade have the option of taking either French I or Spanish I and receive high school credit for the course. See the World Languages Department on page 32.

## **VOCATIONAL EDUCATIONAL EXPERIENCE (VEX) CLASSES**

*Students rotate through these half-year and quarter-long courses throughout the school year. The order and specific classes for each grade are determined annually.*

### **Health**

The Joint Committee on National Health Education Standards defines health literacy as “the capacity of individuals to obtain, interpret and understand basic health information and services and the competence to use such information and services in ways that enhance health.” Concepts in this course include how to prevent disease, reduce risk behaviors, increase health literacy, set goals, communicate effectively and media literacy which will enable a student to make informed and knowledgeable health decisions. Specific content areas required by New Hampshire and National Health Standards such as nutrition, fitness, disease prevention, conflict resolution, technology, communication, decision making, drug-alcohol-tobacco prevention and risks are included. Methods include allowing students to develop and demonstrate health related knowledge, skills and practices while following the Hinsdale’s social learning expectations respecting others’ ideas and attitudes, positive attitude toward solving problems both individually and collaboratively. Techniques include practicing reading, writing, listening, speaking, and language skills, as referenced by the Common Core anchor standards. Many areas of study include hands on projects as well.

### **General Music**

Through the general study of music, students gain an appreciation for the arts and culture by learning about a diverse range of music while engaging in creative and performance-based activities. Through musical interactions in class performances students will gain confidence, respect, and a greater sense of community through creative collaboration. Music skills include a focus on the fundamental elements of rhythm, melody, and harmony. Students are exposed to a variety of instruments, performance mediums, composition and music technology resources, and are encouraged to develop their individual interests. As part of the common core initiative, students will practice speaking and listening skills through collaboration, presentation, composition, and performance, with and for others. Through discussion and activities there is a strong emphasis on Hinsdale’s social learning expectations of respecting other’s ideas and attitudes while having a positive, creative, attitude. Reading and writing will take shape in a variety of contexts including the use of technology in activities, reports, presentations, compositions, and performances. Daily participation is a key component to each student’s success in the class.

### **Visual Arts**

Visual Arts is introductory course to the visual design electives. The curriculum provides a comprehensive visual foundation necessary for the development of the student artist. The curriculum consists of four subjects of study: Drawing, Color, 2-D Design and 3-D Design. Students will explore the elements and principles of design and their relationship to all other art mediums with each section of study. Students will be able to apply the skills of drawing, painting and 3D disciplines to generate, conceptualize, and organize original artistic ideas.

### **Physical Education**

The Hinsdale Physical Education Middle School program provides all students sequential physical and cognitive knowledge they will need to pursue lifelong health and wellness. During this course, students of all abilities will learn to be competent movers through a selection of activities in the following areas: individual sports, team sports, dance, and lifetime activities. Throughout these experiences, students will focus on sport-specific skills and fitness skills at an emerging, maturing and applying level. Students will be able to understand and describe health and skill related fitness concepts as required competencies developed by National and State Standards in Physical Education and the Society of Health Physical Educators. They will continue to develop these skills throughout their Middle School experiences to apply at High School level. Students will also participate in fitness testing and the importance of tracking their progress throughout their PE experience. Other lifetime skills promoted include leadership, responsibility, building self-confidence, problem solving and positive sporting behavior. Students will be assessed in a variety of methods while working towards whole person wellness as defined by 21<sup>st</sup> Century learning expectations.

### **Tech Ed**

Tech Ed is a course in which students learn that technology means more than just computers. Using informational text, computer research and hands-on applications, students will discover that technology allows for the development of processes and systems that extend human capabilities. In addition, students will practice skills which will enrich their educational experience. Using textbook excerpts and handouts, students strengthen their ability to analyze technical text, isolate the key concepts and cite details to support those concepts. Hands on projects are designed to sharpen critical thinking skills and problem-solving strategies. Through these projects students will learn that perseverance, collaboration and the ability to self-direct oneself is often needed to achieve the desired goal not only in labs but in life.

### **Science Experiments**

Science experiments students will use a variety of tools to perform inquiry tasks. Using critical thinking, engineering, as well as problem solving skills students will perform experiments that include following multistep procedures, taking measurements and performing other technical tasks. Students will be able to use the laboratory safely, use the metric system of measurement, and explain and analysis scientific concepts. As a part of the regular course work, students will be able to write up a basic formal lab report on their laboratory experiments.

### **Coding**

In coding students learn the fundamentals of computer programming using a programming language called CoffeeScript. Throughout the course students learn about calling functions with and without arguments, sequencing code, debugging errors, methods and properties of objects, variables, loops, arrays, using a conditional, Boolean, defining functions from scratch with return values, and working with keyboard and mouse input. Once students have developed their coding skills through the online game-like coding challenges, they can apply those skills by creating their own challenges and sharing them with other students in their class.

### **Family and Consumer Science**

This class gives students experiences in all areas of family and consumer science. Students will look at ways to become successful, make friends, manage time and resources. They will practice skills

needed to prepare foods and planning meals. In the textile unit they will learn to do laundry, repair clothes and create a project. Following directions, teamwork and giving best efforts stressed. This course is inclusive of all facets of the Academic, Social and Civic Competencies, with focus on learning to take responsibility for individual actions and choices, and the importance of whole person wellness.

Grade 6 – Topics covered are individual uniqueness; relating to family and friends; communication skills; goals and time management; basic sewing skills; and learning to cook.

Grade 7 – Topics covered are balancing family, friends, and school; responsibilities; skills for workplace success; exploring career options; basic childcare; basic sewing and decorating; and working in the kitchen.

Grade 8 – Topics covered are basic money management; goal setting; time management and organization; career planning; workplace skills; housing and interiors; textiles and construction; and food production and nutrition.

### **Guidance/Career Grade 7**

In this course, students will research and identify various career paths, build confidence in themselves, determine what happiness means to them and think about how they will achieve it, research alcohol and other drugs, respect others, talk about friendships, enhance their self-esteem, learn about Erin's Law, review appropriate use of social media, examine their role models, talk about bullying and harassment, and make presentations.

### **Guidance/Career Grade 8**

In this course, students will research and identify various career paths, define career goals and learn how to achieve them, learn to budget and plan financially for life after high school, learn the skills necessary to be successful in the workplace, build confidence in themselves, determine what happiness means to them and think about how they will achieve it, research alcohol and other drugs, learn about Erin's Law, discuss how to prevent conflicts and violence, talk about pressures and emotions, learn how to prevent teenage pregnancy and sexually transmitted infections, respect others, talk about friendships, enhance their self-esteem, and reflect on relationships both past and present.

### **Robotics I**

A hands-on learning program which engages students as they intertwine problem-solving skills with science, technology, engineering, and math education with real-world learning concepts using the Lego Mindstorms EV3 Robotics platform. Students will be able to solve problems and complete tasks collaboratively and independently through research, analysis and critical thinking (HNHSD Learning Expectation #02). These goals are aligned with the Common Core Curriculum Speaking and Listening Standards #2 and #5 for Grades 6-12 which center on comprehension and collaboration, as well as the presentation of knowledge and ideas, through the use of diverse media, formats, and visual displays.

## **Robotics II**

A hands-on learning program which engages students as they intertwine problem-solving skills with science, technology, engineering, and math education with real-world learning concepts using the Lego Mindstorms EV3 Robotics platform. Students will be able to solve problems and complete tasks collaboratively and independently through research, analysis and critical thinking (HNHSD Learning Expectation #02). These goals are aligned with the Common Core Curriculum Speaking and Listening Standards #2 and #5 for Grades 6-12 which center on comprehension and collaboration, as well as the presentation of knowledge and ideas, through the use of diverse media, formats, and visual displays. At this advanced level, students will be given greater opportunity to be responsible as they endeavor to build and experiment with increasingly more involved robotics concepts and programming.

## **Instrumental Music**

Instrumental Music is a continuation of the instrumental (Band) program at the Elementary School. Through the study of an increasing variety of musical and artistic elements students will explore various styles of music ranging from traditional folk tunes to pop. Students will be expected to reinforce and refine their skills through practice outside of class, and will demonstrate their skills playing their instrument in both individual and group settings in multiple performances throughout the year, both during and outside of school

## **Learning Lab**

Learning lab courses prepare students for successful transition in high school. Course topics may vary according to the individual needs of the student involved, but typically include reading improvement skills, such as scanning, note taking, and outlining, library and research skills, listening and note taking, vocabulary skills and test taking skills. The course may also include exercise designed to generate organized, logical thinking and written. This is also a time for the Special Educator to work on the goals and provide the Specially Designed Instruction within the Student's Individual Educational Plan.