

# *Hanover High School*

## *Program of Studies*

*For the 2013-2014  
Academic School Year*



Dear Student and Parents:

This Program of Studies has been prepared to assist you in planning your high school course of studies to enable you to make the most effective use of your years at Hanover High School. As you think about those years there are immediate concerns and long-range concerns. Certain questions must be answered if you are to determine the program which is best for you.

Some of the questions you should consider:

1. What are your strengths and weaknesses?
2. What kind of grades are you presently getting? What kind of grades do you want to get?
3. How can you find out more about the courses before you select them?
4. At this point in time what are your goals upon graduation?
5. What courses do you think you should take to achieve these goals?
6. Are you aware of what the courses will require before you select them?
7. Are you making long-term plans or merely planning one year at a time?
8. Will you be working to your full capacity and realizing your potential?
9. What are your out-of-school activities? Will you be able to balance your school needs with other needs?

Students should take advantage of the human resources that are available in order to identify the best possible school program. Your Guidance Counselor, subject area teachers, School Administrators, Dresden Plan Advisor, Special Education Case Manager, and upper class students that you know or that are in your Common Ground group are resources you should consider. Do not plan your program in isolation.

This Program of Studies outlines the academic and elective course content offered to students in grades 9-12. In addition, it outlines the sequence of courses. Use this guide not only at this time but for future reference as well.

**Please Note: Parents and students need to realize that due to financial restrictions (1) all courses that are described within the Program of Studies will not necessarily be offered and (2) all individual student/parent requests will not necessarily be met. We will do the best we can to meet requests, but it is possible that some course titles will not be taught or some course enrollments will be capped.**

Best wishes for a successful 2013-2014 school year.

Justin Campbell  
Principal

Ian Smith  
Dean of Students

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## Accreditation Statement

### The New England Association of Schools and Colleges

Hanover High School is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the NEASC indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the NEASC is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

School Administrative Unit #70  
41 Lebanon Street, Hanover, NH 03755  
603-643-6050

### Serving the Districts of Dresden, Hanover, and Norwich, Vermont

Our schools are committed to the following:

1. No person shall be excluded from or discriminated against in admission to a public school or in obtaining the advantages or privileges of any services, programs, activities, or extra-curricular activities on the basis of her/his race, color, sex, sexual orientation, religion, or national origin.
2. No otherwise qualified handicapped individual shall, solely by reason of her/his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity offered by these districts.
3. No applicants for employment shall be discriminated against on the basis of age, race, color, sex, religion, national origin, sexual orientation or handicap. Further, SAU 70 is committed to equal employment opportunity and encourages applications from minorities and men and women in non-traditional fields.

The Title IX and Section 504 Coordinator is the Assistant Superintendent for Student Services.

Inquiries regarding compliance may be directed to the above named person or to the Director of the Office of Civil Rights, Department of Health, Education and Welfare, Washington, D. C., or the Office of Civil Rights, Region I, 140 Federal Street, 14th Floor, Boston, MA 02110.

## General Requirements and Regulations

### POLICY: IHF

### High School Graduation Policy

#### Minimum Requirements

A minimum of 20 credits are required for graduation as follows:

Required Subjects	Credits
English	4
Mathematics*	3
Social Studies required courses**	3
Physical Sciences	1
Biological Sciences	1
Physical Education	1
Health	1/2
Fine/Practical Arts (1/2 must be fine arts)	1
Information and Communications Technologies***	1/2
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\* These math requirements include a credit in algebra that can be earned through a sequential, integrated, or applied program.

\*\* These courses incorporate the NH State Minimum Requirements of US and NH History (1 credit), US and NH Government/Civics (1/2 credit), Economics (1/2 credit), and World History, Global Studies, or Geography (1/2 credit). This also incorporates a district requirement of 1/2 credit in Modern America.

\*\*\*Students must demonstrate proficiency in computers/technology at the high school through either a half-credit course or a portfolio. See Computer Education.

#### Open Electives

Students should review the minimum entry requirements of post-secondary schools in scheduling open electives, bearing in mind that most 4 year colleges require at least two years of foreign language.

#### Awarding Of Credit

A unit of credit or fraction thereof shall be given upon satisfactory completion of a course or learning experience in compliance with the district-specified curriculum and assessment standards. In some cases, course credit may also be awarded based on demonstrated mastery of the required competencies for the course. The Principal, after conferring with appropriate staff, will be responsible for determining the attainment of mastery.

#### Elective Subjects (5 Credits)

The remaining credit requirements may be fulfilled from any of the school's course offerings listed in the Program of Studies. Educationally handicapped students have equal opportunity to complete a course of studies leading to a high school diploma.

#### Minimum Credit Accumulation

To be on schedule to graduate in 4 years, a student should be completing a minimum of 5 credits per year. For example, when a student enters the 11th grade year, he or she should have acquired a minimum of 10 credits.

#### Normal Course Load

The recommended minimum course load for a student is five courses at any one time. The absolute minimum for a full-time student is four courses. A reduced course load (less than four courses) must be approved by the principal and only when special circumstances warrant a reduced program.

## Practical and Fine Arts Requirements

*Hanover High School requires one credit in the Fine and Practical Arts. One-half of that credit must be in the Fine Arts. Most Music courses and Hartford Area Career and Technical Center courses are for a full credit; other courses are organized for a half-credit.*

### Fine Arts Requirements

#### Art

Architectural Drafting  
Design  
Drawing; Drawing II  
Jewelry  
Painting  
Photography; Photography II  
Pottery  
Printmaking  
Sculpture in Metal & Wood  
Studio Art History  
Woodworking

#### Drama

Drama!  
Drama, the Sequel

#### Dresden Plan

Community Mentor  
Independent Study  
Senior Challenge  
Senior Bridges

*All must have Fine Arts focus.*

#### Music

Band  
Chorus  
String/Orchestra  
History of Classical Music  
Music Theory  
Music Independent Study

#### Hartford Area Career And Technical Center

Engineering/Architectural Design  
Graphic Arts  
Videography

### Practical Arts Requirements

#### Computer Education

Computer Programming  
Introduction to Information and Communication Technologies (ICT)  
Web Communication and Design

#### Debate

Debate I  
Advanced Debate

#### Dresden Plan

Community Mentor  
Independent Study  
Senior Bridges  
Senior Challenge  
Volunteer Service  
Work/Study

*All must have Practical Arts focus.*

#### Hartford Area Career And Technical Center

All HACTC Courses

#### Living Arts And Sciences

Independent Study Options  
Leadership

#### Technology

Consumer Auto and Power Mechanics I  
Consumer Auto and Power Mechanics II  
Electricity/Electronics  
Engineering Design I  
Engineering Design II  
Metals Fabrication I  
Metals Fabrication II  
The Way Things Work  
Tools 101  
Woodworking

## Attention — Ninth Graders

As you use this information, keep in mind not just the first year of your involvement at Hanover High School but also future years. In order to help you do this, we are asking you to project ahead so that you may see, at least in part, how your four-year educational program will look. Do not attempt to do this task alone. Rather, discuss courses with your parents and with older brothers and sisters or friends who have attended Hanover High School; if you are entering ninth grade from the Richmond School, teachers there can help you. The more information you can obtain from knowledgeable people, the better program you will be able to develop.

Even though Hanover High School offers a wide variety of choices for students, we believe that it is important for a student to gain a wide range of knowledge about the teaching staff, the various departments and their offerings, the several resource centers in the school and how they are to be used. Therefore, most ninth graders are scheduled into a structured program. You will note below that in your ninth-grade year you have a rather limited number of choices. These choices are structured so that next year, when you move into the elective program, you will have a base of knowledge about the resources in the school. View your ninth grade year here at HHS as an exploratory year—a year to develop criteria for making wise choices.

### Typical Ninth Grade Program

Many of the major courses ninth graders take are either required or strongly recommended. A typical ninth grade program is outlined below with possible alternatives noted.

- A. **English:** All ninth graders are required to take English.
- B. **Math:** Most ninth graders would choose among Math Essentials, Pre-Algebra, Algebra I, Geometry, and Geometry Honors after seeking advice of their 8th grade math teachers. More advanced math courses are possible if present math teachers so advise. A math placement test is required of all students.
- C. **Science:** Ninth graders who plan to take Algebra I are permitted to take Methods in Science, but may find the course mathematically challenging. The recommended course for ninth graders who enroll in Geometry is Methods in Science. Ninth graders who will be taking a Pre-Algebra math

course are advised to enroll in Physical Science. Honors Methods is a course for accelerated ninth graders in science and a concurrent enrollment in Honors Geometry or higher is required. Biology Honors may be taken by ninth graders if they receive high scores on both the Math and Science Placement Tests. These students must also be passionate about Science and have a strong 8<sup>th</sup> grade Science Teacher recommendation.

- D. **Social Studies:** All ninth graders are required to take Civitas and Civilization.
- E. **Physical Education:** All ninth graders are required to take Physical Education.
- F. **Computer Literacy:** Digital portfolios that illustrate proficiency in new and evolving technology skills or a computer science will be required for graduation. Students may not be able to complete this requirement in their ninth grade year, but should include it in their four-year plan.
- G. **Fine and Practical Arts:** Keep in mind that you will need a total of 1 (one) credit in the **Fine and Practical Arts** (1/2 credit must be in Fine Arts) during four years of high school.
- H. Students must understand that there are only 7 periods in the day in which to take courses and, therefore, should select no more than 7 courses including Physical Education. Many students choose to take 6. If a parent and student feel that a regularly scheduled lunch hour is important to a student's day, a lunch hour can be scheduled periods 4 or 5.

### Completing Your Program

After you have completed your planning:

1. Fill out the course advising sheet.
2. Secure any necessary teacher approvals as indicated in the department overview.
3. Secure your parents' approval.
4. Enter the course code numbers of your selections on the registration form.
5. Turn in the completed registration form and advising sheet to the Guidance Office.

**Deadline to submit course registrations is March 1, 2013 for current high school students and March 8<sup>th</sup> for entering 9<sup>th</sup> graders and new tuition students.**

## Advanced Placement Opportunities

### ***The AP Exam Option***

At Hanover High School there are many challenging, advanced level courses, some of which are AP compatible. Students who take these courses may wish to explore the AP exam option. While Hanover High School does not offer AP courses as such, many classes may include preparation for the national AP exams, which test a prescribed body of knowledge and/or skills. Depending on the college and the grade earned on a given exam, students may receive credit toward college graduation or may place out of introductory college courses. It should be noted that AP courses are not required in order to take AP exams. Here are some questions and answers to help you determine if exercising the AP exam option is to your benefit:

### ***Will taking the AP exams save me time and money in college?***

Seniors in particular are strongly advised to check with the colleges in which they are interested to find out how, if at all, these colleges and their departments use and view AP exams. Seniors will also want to find out what scores are considered acceptable. Further, check to see if SAT II's qualify as placement exams. Also, students should inquire as to whether college departments give their own placement exams or use still other exams to exempt or give credit for introductory courses. Doing so will help determine if taking the exams and meeting the requirements will be of benefit in college.

### ***Will there be AP Exam discussion and notification in relevant courses?***

For each AP exam associated with a relevant or recommended course (i.e. Honors Biology and the AP Biology exam), teachers will include information about AP exam preparation in their course standards documents and will discuss such preparation prior to the school break in February. For semester courses that meet in the first semester (i.e. Probability and Statistics for the AP Statistics exam), teachers will discuss AP exam preparation prior to the end of the first semester.

### ***Are there other benefits of taking AP exams?***

Planning for spring AP exams may be a valuable motivator and confidence builder for students in any

grade who are seeking additional challenges. It can give a graduating senior, especially one already accepted at college, an appropriate academic focus.

### ***Will I be able to accommodate AP exam preparation within my schedule?***

If you are planning to take AP exams during your high school career, consider carefully what your time will allow. AP exams are given within a two-week period in May, a month before your regularly scheduled finals, and may require significant preparation, especially if you are taking multiple exams during the same period.

### ***How and when do I register for AP exams at Hanover High School?***

Make sure your teacher knows by late February of your intention to take a particular AP exam. The Guidance Department will register students for the exam during the month of March. Students must pay for each AP Exam in full at the time of registration. After AP Exams have been ordered a \$25.00 fee will be assessed for each AP Exam a student does not take for any reason.

### ***Can I afford the cost of AP exams?***

The fee for each AP exam is around \$89. The College Board and Hanover High School offer fee reductions "to qualified students with acute financial need." For additional details on required late fees and refunds consult the most recent *Guide to the AP Program*, published by the College Board. These *Guides* are available in February from the Guidance Department and Department AP Coordinators. **For more information** or to obtain recent publications on AP exams, please contact:

AP Services  
P.O. Box 6671  
Princeton, NJ 08541-6671  
1-609-771-7300      1-888-225-5427

The College Board web site is  
<http://www.collegeboard.org>

## The AP Exams

### Biology

Recommended course to prepare for exam: Honors biology  
Suggested school year in which to take exam: The May of the year in which students take the course, or the following year.  
Additional expectations, if any, to prepare for exam: The AP biology curriculum is extensive and dictates that students perform certain labs. The HHS biology curriculum is focused on depth as well as breadth, and labs are designed to develop students' inquiry skills. Therefore students who are interested in taking this exam should be prepared to review and learn some material on their own or with the assistance of their teacher. Students should check with their teacher to see what AP material is not covered in their course.  
Suggested test-prep strategies: Students should begin preparing in January at the latest with a published study guide.  
Additional comments: There are two versions of the test: Ecology and Biochemistry. There are also some questions which are common to both tests. Some students feel comfortable with the concepts in one area more than the other. The HHS curriculum spends more time on the biochemistry topics.  
For more information, contact: Tom Hermanson or Dan Falcone

### Calculus AB Or Calculus BC

Recommended course sequence to prepare for exam: Geometry Honors; Algebra 2 Honors; Advanced Math Honors; and Calculus  
Suggested school year in which to take exam: Students typically take the Calculus AB/BC test in May of the year in which they take Calculus A (first semester) and Calculus B (second semester), while the information is still fresh in their minds. They may take the exam in subsequent years, but the delay usually results in a lower score. Generally, students take Calculus in the 12th grade although a few may take it in 11th grade.  
Additional expectations, if any, to prepare for exam: Students are encouraged to do their own test preparation and are welcome to come to the Bill Cogswell Center for Mathematics if they would like additional help.  
Suggested test-prep strategies: Thorough work in Calculus A and Calculus B is the best way to prepare for the exam. Various books and computer software are available at local bookstores for those who want extra practice.  
Partial bibliography of resources to consult. For a more complete listing consult your teacher:  
For this exam, as well as for all the AP exams, students can go to: College Board web site at: [www.collegeboard.org/ap](http://www.collegeboard.org/ap)  
Any calculus textbook  
Graphing Calculator Manual  
AP Examination Practice Tests, stored in the Math Department  
For more information, contact the Math Department Coordinator.

### Chemistry

Recommended course to prepare for exam: Honors chemistry  
Suggested school year in which to take exam: The May of the year in which students take the course, or the following year.  
Additional expectations, if any, to prepare for exam: The AP chemistry curriculum is extensive and dictates that students perform certain labs. The HHS chemistry curriculum is focused on depth as well as breadth, and labs are designed to develop students' inquiry skills. Therefore students who are interested in taking this exam should be prepared to review and learn some material on their own or with the assistance of their

teacher. Students should check with their teacher to see what AP material is not covered in their course.

Suggested test-prep strategies: Students should begin preparing in January at the latest with a published study guide.  
For more information, contact: Kevin Lavigne or Dan Falcone

### Computer Science

Recommended course sequence to prepare for exam: Computer Programming at Hanover High School.  
Suggested school year in which to take exam: May of the year in which the Computer Programming course is taken, or May of the following year.  
Additional expectations, if any, to prepare for exam: Searching and sorting algorithms are covered in computer programming, but some years these algorithms are not covered to the extent that would be sufficient for the AP exam.  
Suggested test-prep strategies: Students should study old AP tests, available in the Bill Cogswell Center for Mathematics and should, in April of the year in which the exam will be taken, review major topics from the course.  
Other notes: To be prepared to take the Computer Science AB Exam, it is recommended that students take CS5 at Dartmouth. Partial bibliography of resources to consult. For a more complete listing consult your teacher:  
For this exam, as well as for all the AP exams, students can go to: College Board web site at: [www.collegeboard.org/ap](http://www.collegeboard.org/ap)  
AP Examination Practice Tests  
For more information, contact the Math Department Coordinator.

### English Language And Composition

The AP English Literature Test and the AP English Language Test are very similar. They both have reading comprehension sections, and they both have three required essays. The distinction is that the Literature Test focuses both its sections on interpretive skills (theme, poetic devices, analysis, inference) while the Language Test focuses on analytical skills (use of rhetoric, tone, style, diction). Both require close reading of source material. Neither requires knowledge of a specific group of texts.  
Recommended course sequence to prepare for exam:  
• One or two writing courses: Composition II, Advanced Prose Writing, Senior Writing Seminar (Honors).  
• Reading and Rhetoric (phase 3);  
• Four or five literature courses: American Renaissance (honors), Classic English Novels (honors), Contemporary American Culture (phase 3), Early American Literature (phase 4), Early English Literature (phase 4), Greek Myths (phase 4), Later American Literature (phase 3), Later English Literature (phase 3), Philosophy (phase 4), Russian Literature (honors), Short Story Masterpieces (phase 3), Shakespeare (phase 4), Twentieth Century Literature (honors), World Classics (phase 3).  
Suggested school year in which to take exam: 11th and/or 12th Grade  
Additional expectations, if any, to prepare for exam: Students at HHS who enroll in rigorous phase 3, 4, and honors courses in 10th, 11th, and 12th grades and experience academic success in these classes are, for the most part, more than adequately prepared to sit for the AP English Language and Composition exam in May.  
Students interested in taking this exam should take a variety of literature and writing electives (some American literature, some British literature, and some literature in translation).  
Suggested test-prep strategies: The English Department encourages students to take rigorous courses in which they are



expected to work hard, expand skills, produce high-quality essays, and take risks. We encourage students who are planning to take an AP exam to attend the practice sessions sponsored by the English staff in February. For this exam, as well as for all the AP exams, students can go to: College Board web site at: [www.collegeboard.org/ap](http://www.collegeboard.org/ap) See English tests from former years in the English Resource Center.

Additional Comments: The College Board does not require a specific syllabus or reading list for AP English. In fact, because AP is a nation-wide program, The College Board encourages the reading of a wide variety of literatures. Both English AP exams—Literature and Composition and Language and Composition—are skills-based and require that students be proficient in close reading, passage analysis, and techniques of various genres, but not that they read a particular book list. The English Department will offer test practice in February. We urge students who plan to take one or more AP English exams to attend the practice sessions and then to sit for the exam(s) in May.

For more information, contact: Andrea Alsup or Hal Bourne

### English Literature and Composition

Recommended course sequence to prepare for exam:

- One or two writing courses: Composition II, Advanced Prose Writing, Senior Writing Seminar (Honors).
- Four or five literature courses: American Renaissance (honors), Classic English Novels (honors), Contemporary American Culture (phase 3), Early American Literature (phase 4), Early English Literature (phase 4), Greek Myths (phase 4), Later American Literature (phase 3), Later English Literature (phase 3), Philosophy (phase 4), Russian Literature (honors), Shakespeare (phase 4), Short Story Masterpieces (phase 3), Twentieth Century Literature (honors), World Classics (phase 3).

Suggested school year in which to take exam: 11th and/or 12th Grade

Additional expectations, if any, to prepare for exam: Students at HHS who enroll in rigorous phase 3, 4, and honors courses in 10th, 11th, and 12th grades and experience academic success in these classes are, for the most part, more than adequately prepared to sit for the AP English Literature and Composition exam in May.

Students interested in taking this exam should take a variety of literature and writing electives (some American literature, some British literature, and some literature in translation).

Suggested test-prep strategies: The English Department encourages students to take rigorous courses in which they are expected to work hard, expand skills, produce high-quality essays, and take risks. We encourage students who are planning to take an AP exam to attend the practice sessions sponsored by the English staff in February.

For this exam, as well as for all the AP exams, students can go to: College Board web site at: [www.collegeboard.org/ap](http://www.collegeboard.org/ap) See English tests from former years in the English Resource Center.

Additional Comments: The College Board does not require a specific syllabus or reading list for AP English. In fact, because AP is a nation-wide program, The College Board encourages the reading of a wide variety of literatures. Both English AP exams—Literature and Composition and Language and Composition—are skills-based and require that students be proficient in close reading, passage analysis, and techniques of various genres, but not that they read a particular book list.

The English Department will offer test practice in February. We urge students who plan to take one or more English exams to attend the practice sessions and then to sit for the exam(s) in May.

For more information, contact: Andrea Alsup or Hal Bourne

### Environmental Science

Recommended course to prepare for exam: Honors Environmental Science

Suggested school year in which to take exam: Students should take the AP exam in May of the year in which they take the course, which is either their junior or senior year.

Additional expectations, if any, to prepare for exam: The material for the AP exam is covered in the Environmental Science course. Students taking the AP Exam in Environmental Science can expect to see multiple choice as well as free response questions that test student ability to design experiments, analyze and interpret data, think analytically and apply concepts to solving environmental problems.

Suggested test-prep strategies: A folder of students tests for the year as well as previous AP exams and grading rubrics from the College Board will be provided a few weeks before the exam. Teacher led review sessions may be offered depending on student interest. Students may also purchase the Barron's Study Guide to the AP Environmental Science Exam. For more information, contact: Jeannie Kornfeld

### European History

Recommended course sequence to prepare for exam:

- 9th Grade – Civitas and Civilization
- 10th Grade – US History: The American Experience
- 11th Grade - Contemporary American History and Global Studies/Geopolitics
- 12th Grade - European Culture and Political Thought

Suggested school year in which to take exam: Students should take the AP exam in May of the year in which they take the course, which is either their junior or senior year.

Additional expectations, if any, to prepare for exam: Students who plan to take the AP European History (APEH) exam in May of their senior year are advised to indicate their interest by the end of the second quarter. They will receive an information packet at that time with sample tests, a special AP History Booklet published by the College Board, and a list of helpful resources. Included will be a timeline for practice/strategy sessions (about three) scheduled early in the fourth quarter. Within the Hanover High School European Cultures course, students who plan to take APEH will select specific Document Based Questions (DBQ's) for their quarterly essay assignments.

Suggested test-prep strategies: Students who do additional practice drills on multiple choice questions (which will be made available by the teacher) will have an advantage on the May exam. These questions are also found on a wide variety of web sites. Using chronologies of European History are basic to effective review.

Partial bibliography of resources to consult. For a more complete listing consult your teacher:

Books: Campbell, Holt, and Walker, *The Best Test Preparation for the AP Advanced Placement Examination in European History*, Research and Education Association, NJ 1998

Phillips, Adrienne, *Teacher's Guide to Advanced Placement Course in European History*, Educational Testing Service (CEEB), Princeton, NJ, 1992 (available from CEEB).

Extremely valuable web sites:

<http://www.collegeboard.org/verity/bin/list.cgi>. (This site will allow you to download many sample tests as well as CD demos published by the AP division of the College Board. You can also connect to the AP store to purchase any of the preparation materials on the list.)

<http://tlc.ai.org/histeur.htm#AP> (This site can link you to many useful teacher-prepared study sites for AP European

History.) <http://www.apeh.com> See Seth Goodwin for the most recent web sites created by teachers of European History. For more information, contact: Seth Goodwin

### French Language

Recommended course sequence to prepare for exam:  
French II Honors; French III Honors; French IV Honors;  
French V Honors

Suggested school year in which to take exam: It is recommended that students take the test in May of the year they take French V Honors, usually the senior year.

Additional expectations, if any, to prepare for exam: All grammar, phonetics and conversation lessons appropriate to the AP test are covered in French V Honors prior to the exam. Students also do practice exams in class and can seek extra practice during X-hours. Additional practice exams are available in the Resource Center and from Jeanne Vigneault, who teaches French V Honors.

Suggested test-prep strategies:

Practice reading, writing, speaking, and listening to French everyday throughout the year. In addition, on line sites are available for weekly aural practice and assessment. Many resources are available on the Internet and at bookstores and libraries.

Partial bibliography of resources to consult. For a more complete listing, consult your teacher:

- Lenard, Yvone. *Trésors du temps: Niveau avancé*. New York: Glencoe, 1997 (a textbook that serves as our historical anthology).

- Sturges, Hale II, Linda Cregg Nielsen, and Harry L. Herbst. *Une Fois pour Toutes*. Deuxième Édition. New York: Longman Publishing Group, 1992 (a basic text).

- *Champs Elysées*. P.O. Box 158067, Nashville, TN 37215 (DVDs and transcriptions).

- Léon, Monique. *Exercices systématiques de prononciation française*. Paris: Hachette/Larousse, 1976 (speaking and listening resource).

- Vigner, Gérard. *Parler et convaincre*. Paris: Hachette (Collection Outils), 1979 (speaking and listening resource).

Amiry, Liala, M.A., *AP French, 3rd Edition*, New York: Barron's Educational Series, Inc. 2007

For more information, contact: Jean Vigneault

### German Language

Recommended course sequence to prepare for exam:  
German 1 Honors, German 2 Honors, German 3 Honors,  
German 4 Honors, (German 5 Honors)

Suggested school year in which to take exam:

It is recommended that students take the AP German Language and Culture exam in May of the year following a successful completion of the German Language Diploma 1 (B1 level), which typically translates to the end of their fourth or fifth year of language studies.

Additional expectations, if any, to prepare for exam:

The new AP German Language and Culture exam focuses communication and cultural awareness with a focus on topics like global challenges, science and technology, contemporary life, personal and public identities as well as families and communities – all topics covered by the regular curriculum. The German Language Diploma (DSD 1) serves as a great practice exam. Extra preparatory material on relevant topics will be available from your teacher.

Suggested test-prep strategies:

Practice reading, writing, speaking, and listening German

everyday throughout the year. In addition, on line sites are available for weekly aural practice and assessment. Many resources are available on the Internet and at bookstores and libraries. (For further details on resources consult with your German teacher.)

Partial bibliography of resources to consult. For a more complete listing, consult your teacher:

*Textbook series:* Berliner Platz 1-3 (A1, A2, B1): Berlin, Wien, New York: Langenscheidt KG, 2004.

Optimal A1, A2, B1: Berlin, Wien, New York: Langenscheidt KG, 2005.

Aspekte B1+, B2: Berlin, Wien, New York: Langenscheidt KG, 2008.

Grammar books: Klapper, John; McMahon, Trudi: *Neue kommunikative Grammatik. A Communicative Grammar Worktext with Written and Oral Practice*. Lincolnwood, IL: National Textbook Company, 1996. Reimann, Monika: *Grundstufen-Grammatik für Deutsch als Fremdsprache*. Ismaning, Bayern: Hueber-Verlag. 2010.

Culture and society: Kaufmann, Susan; Rohrmann, Lutz; Szablewski-Cavus: Petra: *Orientierungskurs Deutschland*. Berlin, Wien, New York: Langenscheidt KG, 2007.

Literature: Böll, Heinrich: *Wanderer, kommst du nach Spa ... Erzählungen*. München: Deutscher Taschenbuchverlag, 1967 (1997). Borchert, Wolfgang: *Das Gesamtwerk*. Hamburg: Rowolt Verlag GmbH, 1949 (1991).

Brussig, Thomas: *Leben bis Männer*. Frankfurt am Main: Fischer Taschenbuchverlag, 2001.

De Bruyn, Günter: *Zwischenbilanz: Eine Jugend in Berlin*.

Frankfurt am Main: Fischer Taschenbuchverlag, 1994 (1997). Hesse, Hermann: *Unterm Rad*. Leipzig: Philipp Reclam jun., 1986

Wallraff, Günter: *Aus der schönen neuen Welt. Expeditionen ins Landesinnere*. Köln: Kiepenheuer und Witsch, 2009.

For more information, contact: Uwe Goodall-Heising

### Latin: Vergil

Recommended course sequence to prepare for exam:

Latin I Honors; Latin II Honors; Latin III Honors; Latin IV Honors / V Honors (V)

Note: This sequence offers preparation for the Vergil exam, on which students do better if they are in their fourth or fifth year of Latin.

Suggested school year in which to take exam:

The nature of many of the test's questions is rather sophisticated. It would and does require a more mature mind for both the interpretation of the themes of the epic as well as for the construction of answers on the test. Therefore, it is best to take the test in the junior or senior year.

Additional expectations, if any, to prepare for exam:

Students planning to take the exam in Vergil should enroll in the Latin IV Honors / V Honors (V) course, which covers the syllabus required by the AP program. The class meets four times per week with a special session for grammar during the X period. The class prepares translations, discusses the meter of the poem, analyzes the figures of speech present in the assigned lines, writes essays, has numerous vocabulary and meter tests and takes sample AP Vergil tests. As the pace of this course will be determined, to some extent, by the abilities and skills of its students, the class may or may not cover the entire AP Vergil syllabus by the actual exam date. Therefore, students hoping to take the AP exam should notify the instructor of their intentions as early in the year as possible so that additional time may be set aside for the purpose of preparing those students for the exam.

Suggested test-prep strategies:

A student needs to work daily on the material in the syllabus up to the very day of the exam. The requirements are rigorous and specific. Familiarity with this course of study *in toto* is a necessity; students without a formal course in Vergil's *Aeneid* would probably not score well on the exam.

Suggested test-prep strategies:

A student needs to work daily on the material in the syllabus up to the very day of the exam. The requirements are rigorous and specific. Familiarity with this course of study *in toto* is a necessity; students without a formal course in Vergil's *Aeneid* would probably not score well on the exam.

Partial bibliography of resources to consult. For a more complete listing consult your teacher:

Primary reading:

Boyd, Barbara Weiden. *Vergil's Aeneid: Selections from Books 1, 2, 4, 6, 10, & 12*. Wauconda, Illinois: Bolchazy-Carducci Publishers, 2001.

Mandelbaum, Allen, tr. *The Aeneid of Virgil: A Verse Translation*. Berkeley, CA: University of California Press, 1971.

Additional reading:

Commager, Steele, ed., *Vergil: A Collection of Critical Essays*. Englewood Cliffs, NJ: Prentice-Hall, 1966.

Davis, Sally. "Teaching Students to Write Critical Essays on Latin Poetry," *The Classical Journal* 85 (1990), 133-138.

Quinn, Stephanie, ed., *Why Vergil? A Collection of Interpretations*. Wauconda, Illinois: Bolchazy-Carducci Publishers, 2000.

*Advanced Placement Course Description for Latin: Vergil, Latin Literature*. Published by the College Board and available in the AP Resource Center.

*Nota Bene*: Each year the Vergilian Society publishes a bibliography of current scholarship in the field. The journal is *Vergilius*.

For more information, contact: Brian Glenney

## Physics B

Recommended course sequence to prepare for exam:

Science—Methods in Science; Honors Chemistry; Alpha Physics

Math—Geometry Honors; Advanced Algebra Honors, Pre-Calculus Honors

Suggested school year in which to take exam: Students should take the AP Physics B exam after completing the above listed courses, usually in their senior year.

Additional expectations, if any, to prepare for exam: All topics tested in the AP Physics B exam are covered in Alpha Physics. However, because the speed at which topics are covered in this course varies, depending on the student population and its interest and talents, some topics may be covered in more or less depth. To ensure adequate coverage of every topic area in the AP Physics B exam, students should purchase and use one of the several AP Physics test preparation books (see bibliography below). Also, students should be aware that a portion of the AP Exam is dedicated to electricity and magnetism and a majority of this topic is covered after the early May date of the AP Exam. We do not recommend that students take the Physics C exam.

Suggested test-prep strategies: As suggested above, an AP Physics test preparation book should be purchased and used. Use of these books should include taking of one or two practice tests. Taking these tests will alert students to topics that should be reinforced prior to taking the AP exam. Students should contact their Physics teacher to arrange help sessions if they desire.

Partial bibliography of resources to consult. For a more complete listing consult your teacher:

AP Physics B & C (REA) – The Best Test Prep for the Advanced Placement Exam: 5<sup>th</sup> Edition (est Prepe) by s. Brehmer, Boris Korunsky, James L. Love, L. Brown, M.L. How to Prepare for the AP Physics B (Barron's How to Prepare for the AP Physics B Advanced Placement Examination by Jonathan S. Wolf

AP Physics B 2005: Apex Learning Guide (Kaplan AP Physics B & C) by Connie Wells, Hugh Henderson

Cliffs – AP Physics B & C by James R. Centorino

AP Advantage: Physics B by James Mooney

For more information, contact: Dan Falcone or Sally Hair

## Spanish Language

Recommended course sequence to prepare for exam:

Spanish I, II Honors, III Honors, IV Honors

Recommended course sequence to prepare for exam:

Spanish I, Spanish II Honors, Spanish III Honors, Spanish IV Honors

Suggested school year in which to take exam:

It is recommended that the students take the test in May of the year they take Spanish V Honors.

Additional expectations, if any, to prepare for exam:

The students should attend their regular class 4 times a week and then meet with the AP group during the X period, and possibly during other free times, to practice more intensely the skills they are acquiring through the regular curriculum. They will be required to complete additional readings, listen to audio files, write compositions, make oral presentations, and practice recording oral responses to questions. They will also take practice exams after the winter break.

Suggested test-prep strategies:

Students should seek exposure to oral and written Spanish (movies, songs, online newscasts, magazines, newspapers, short stories). Many resources are available within the school, the community, and on-line.

Partial bibliography of resources to consult. For a more complete listing consult your teacher:

Couch, James H. et al. *Una Vez Más*. Andover, MA: Phillips Academy, 1982 (Grammar Exercises).

Gordon, Ronni L. and Stillman, David M. *The Ultimate Spanish Review and Practice*.

McGraw Hill (Second Edition)

Día, José M., Nadel, María, Collins, Stephen J. *Abriendo Paso Lectura*. (Prentice Hall)

Duhl, Jay and Mercado, Felipe. *Mastering the Advanced Placement Spanish Language Exam*. (EMC Publishing)

## Statistics

Recommended course sequence to prepare for exam:

Geometry; Algebra 2; Advanced Math, Probability and Statistics or the equivalent honors sequence.

Suggested school year in which to take exam: The department recommends that a student sit for the exam in May of the year in which the Probability and Statistics course is taken.

Additional expectations, if any, to prepare for exam: Students should have familiarity with the statistical capabilities of a graphing calculator. The material for the AP Exam in statistics is usually covered in a year-long course. Since the HHS course is a semester course, students should be prepared to study some material independently. Students are encouraged to do their own test preparation and are welcome to come to the Bill Cogswell Center for Mathematics if they would like additional help.

Suggested test-prep strategies: Students should study old AP tests, available at the Bill Cogswell Center for Mathematics, and should, in April of the year in which the exam will be taken, review major topics from the course.

Partial bibliography of resources to consult. For a more complete listing consult your teacher:

Bock, Velleman, DeVaux, Stats: Modeling the World, Boston: Pearson/Addison-Wesley, 2004

Annenberg/CPB, "Against All Odds: Inside Statistics," (twenty-six 1/2-hour-long videos) Burlington, Vermont: The Annenberg/CPB Collection, 1989.

Phone: 1-800-Learner. (Note: these videos are used in the course.)

Devore, Jay and Roxy Peck. *Statistics: The Exploration and Analysis of Data*, St. Paul, MN: West, 1986 (textbook).

Moore, David and George McCabe, *Introduction to the Practice of Statistics*, 2nd ed., New York: W.H. Freeman, 1993 (textbook).

For more information, contact the Math Department Coordinator.

### U.S. History

Recommended course sequence to prepare for exam:

9th grade – Civitas and Civilization

10th grade - U.S. History: The American Experience

11th grade –Contemporary American History/Geopolitics; those planning to take the AP exam should request CAH for the *first* semester.

Suggested school year in which to take exam: Junior year would be the best time to take the exam, since that would be soon after students have completed CAH.

Additional expectations, if any, to prepare for exam: Students will be expected to attend an informational meeting in the fall and in February of junior year. These will be held during

activity period. During the fall meeting, information on the exam, including cost, will be given as well as an update on web sites, review books and other resources. In addition, the fall meeting will provide an opportunity to meet with others who are taking the test and to form study groups. The spring meeting will provide an opportunity to encourage study groups to meet and to go on-line in order to look at the Document Based Questions (DBQ's) that are posted each spring by various high schools on their web pages.

Suggested test-prep strategies: Students should practice answering DBQ's, available in the Resource Center. They should read *Doing the DBQ*, a College Board publication, and they should investigate and use support materials available on the Internet, at the Resource Center, and at the Dartmouth Bookstore. In addition, students should do practice AP tests, which are available in the Resource Center, and they should visit the College Board AP web site.

Partial bibliography of resources to consult. For a more complete listing consult your teacher.

Books:

*AP in United States History*, Research and Education Association, 61 Ethel Road West, Piscataway, NJ.

*Acorn Guide to AP U.S. History*. Acorn has a popular series of AP guides.

Useful web addresses:

<http://www.collegeboard.org/ap/ushistory/html/indx001.html> <  
www.apush.com> — a clearinghouse of AP links created by teachers

<<http://modernhumanities.org/frame2.html>>

<http://members.icanect.net/~tincat/>

For more information, contact: Pam Miller

## Guidance Department

### Guidance Department Philosophy

The Guidance Department at Hanover High School is committed to the belief that students can be trusted to make important decisions about managing their school lives. By approaching students with trust and dignity and giving them the freedom to make significant decisions, they learn to act responsibly and maturely. Along with parents, other school personnel and the community, our goal is to enable each student to reach a high level of self-understanding, self-direction and learning.

The school counselor assists students as they face new problems such as adjusting to the high school community, finding their place as students, and making post-secondary decisions. The school counselor strives to help students reach their potential as students, as individuals and as citizens.

### Guidance Department: Who We Are

The Guidance Department has three full-time counselors and two part-time counselors. Students are assigned to a guidance counselor according to the first letter of their last name:

A-D: Joseph Stallsmith  
 E-K: Andrea Johnstone  
 L-O: Elizabeth Keene  
 P-S: Laurie Harrington  
 T-Z: John McCracking, *Department Director*

Registrar: Stacey Smith  
 Guidance Secretary: Joan Townsend

### Student Assistance Counselor

Chris Seibel is the Student Assistant Counselor. Chris is full time and works within the Guidance Department. He is licensed as both a Clinical Mental Health Counselor and a Drug and Alcohol Counselor. He is available to meet with students and families around personal concerns affecting school performances as well as make referrals to other community resources. He also meets with students who are seeking support in their decision not to use alcohol and drugs. He is available through appointments or on a drop in basis.

### Guidance Services: What We Do

Guidance services are available to students, parents, and faculty both through structured programs and on an as-needed basis. All students and parents are encouraged to meet with their counselor when the need arises. Guidance services include assistance in designing meaningful academic programs, dealing with personal and interpersonal concerns, exploring and developing career plans, and planning for college and work.

Ninth graders meet with counselors in the fall to learn about guidance services and to discuss concerns or questions about high school. Sophomores meet with their counselors during the fall and winter to learn about career opportunities, career decision making and junior and senior year school opportunities. Juniors meet in the spring for college and post high school planning. Seniors meet in the fall to go over college and future plans. The department organizes an orientation for new students, works with middle schools to facilitate the transition to high school and assists with career and college planning and course registration and selection.

### Guidance Department: How We Work

Teachers, parents, and administrators frequently refer individual students with academic or personal difficulties to a counselor. Counselors regularly review academic progress, and students in academic difficulty are invited to meet with their counselor to discuss problems and potential resolutions. Staffings with teachers, parents, and students are arranged when needed. A staffing is an opportunity for teachers and parents to share concerns and determine appropriate courses of action.

Counselors are available on a drop-in basis and/or by appointment. Counselors meet with students and families around academic concerns, post high school planning, and personal issues. Counselors respond to individual students in crisis as well as situations affecting the entire school. Counseling services are based on the three tenets:

1. Talking to a counselor is voluntary.
2. Except in cases of personal safety, what a student says is confidential.
3. The responsibility for solving a problem belongs to the student

## Some Guidance Department Specifics

### Records and Transcripts

A cumulative record file is maintained in the Guidance office for each student. Students may request to have records in this file sent to schools, colleges, and organizations of their choice. These records are open to review by students and parents upon arrangement with the Guidance office.

### Guidance Resources

The College and Career Center has a library of college and career reference materials, college catalogues, summer and travel opportunities, alternative education programs, Career and College exploration books and computer programs, video viewbooks, scholarship and financial aid information, and computer resources.

Naviance, a web based Career and College Planning program is available to all high school students. Usually introduced to students in 10<sup>th</sup> grade, students will register with a Guidance Counselor and obtain a user name and password to access the Naviance program.

On a limited basis the Guidance Department offers group counseling and classroom programs. These may include adolescent support groups, academic support groups, social skills groups, classroom team building, and workshops on the college and career process.

### Choosing Courses

Students choose courses with the advice of teachers and guidance counselors. The Guidance Department attempts to tailor students' programs to individual needs, desires, and aspirations. Parents participate in this process by approving course choices on the registration forms. Registration for the following year takes place in February and March. Students usually receive a final course schedule in August.

### Report Cards

Report cards are distributed in Common Ground, and students are responsible for bringing them home. Parents are not required to sign a receipt verifying they have seen the report card. Various school

publications indicate report card dates, and the school places a notice in the Principal's Weekly.

### Guidance Department: How to Reach Us

Please call the Guidance Department Secretary at **643-3431, extension 2106**. If we are not available, you can leave a message on the voice mail. Counselors make every effort to return phone calls in a timely fashion. Be sure to state if your question or concern is an emergency. Or, you may e-mail us at **(counselor) first name. (counselor) last name@hanovernorwichschools.org**.

Note: Particularly busy times for guidance counselors are at the beginning of each semester when students are making course and schedule changes, and just prior to December break as we are processing many college applications which are due on January 1. We ask for your understanding if it takes us a little longer to return your call or to respond to your email.

## Student & Parent Portal Info

### Portal Information

HHS has a student grade portal available to students and parents that will allow students and parents to see a snapshot of student grades. Although, student learning encompasses far more than can be expressed on a portal update or report card, it is hoped that the information provided by the portal will strengthen communication among students, parents and teachers. The portal gives students an opportunity to improve as independent learners who are responsible for their own education. Teacher's grades are recorded in a way that best reflects their program and they update their grades every two weeks. The grades on the portal are only a snapshot of a student's current grades. There may be factors such as category weighting and participation that may affect the final grade calculation at the end of each grading period. For portal access information contact 643-3431 ext. 2511.

## Art

To meet school requirements all art courses require a minimum of 4 1/2 hours per week. This time is a combination of class time and individual studio time. Individual work in the studio is important to artistic development. Each student enrolled in an art course will do a research project and keep a personal sketchbook of ideas, drawings, and class notes. Design or Historical Techniques of Western Art must be taken as a prerequisite before taking the other studio courses. Equipment and materials for course work are provided. Materials for independent projects or work outside of class expectations will be purchased by the student.

### Introductory Courses

#### Design

*Grades 9-12*

*CR: 1/2 - Semester*

*Prerequisite: None*

Design is an introduction to basic elements of art and how they function in all areas of design. Equal emphasis is placed on improving a student's capability to see and analyze the world and on producing original designs. The approach is one of design as problem solving. Elements of line, color, texture, shape, and perspective will be explored, and students will be introduced to techniques in studio media such as jewelry, pottery, painting, drawing, collage and printmaking. An iPad unit includes computer generated imagery. Cartooning and photography. Design is a prerequisite for taking studio courses.

#### Historical Techniques Of Western Art

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisite: None*

This course teaches students to create art using production techniques that span the history of Western art from pre-history to modern times. Studio activities include creation of stained glass panels, bas-relief soapstone carving, ceramics, lithography, calligraphy, creation of pigments and tools from natural materials, pastel painting, and other work that will help students develop a deeper understanding of the major characteristics and trends of each period. Emphasis is placed on acquiring technical skills and on developing an understanding of the historical and cultural context in which each art form was practiced. This course serves as a prerequisite to other studio art courses.

### Studio Courses

#### Drawing I

*Grades 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Design or Historical Techniques of Western Art*

This course is an introduction to drawing. It will take beginning draftsmen through a series of exercises designed to develop their ability to translate their visual perceptions onto a two-dimensional piece of paper. This class emphasizes drawing from observation. The students will learn that all forms of drawing are similar in process. Various media, techniques and subjects will be explored.

#### Drawing II

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisites: Design, or Historical Techniques of Western Art and Drawing I or Permission*

This course is designed for the student who has completed Drawing I, or for the experienced draftsman whose skills are verified by the Art Department. The emphasis of the course will be to continue the development of the student's drawing skills and personal style. Examination of how master draftsmen work will be used to teach the student ways of working successfully. New media and a more conceptual approach to art production will be introduced.

#### Jewelry

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Design or Historical Techniques of Western Art*

Emphasis is on technique and design in the making of jewelry. This course covers the use of hand tools, piercing, fabrication, inlay, soldering, bezel stone setting, lost-wax casting, polishing, etching, forming and designing jewelry. Copper, brass, nickel silver, findings and stones are provided for assignments. Sterling silver, gold, and stones for projects beyond the class assignments will have to be purchased by the student.

#### Painting

*Grades 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Design or Historical Techniques of Western Art*

The goal of Painting is to teach the aesthetics and techniques of painting while moving the student toward a personal style. All basic painting techniques will be taught, including the

stretching of canvas over wood frames and the use of paint as a medium (glazing, texture, and surface control). The student will be encouraged to follow her/his own basic instincts while exploring the use of color, light, form, composition, and the critical analysis of painting.

### Photography I

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Design or Historical Techniques of Western Art*

This is an introductory course in the study of the photographic image. Images will be created using traditional darkroom techniques and digital technology. Emphasis is on attaining artistic and technical proficiency with the 35 mm and digital camera. Students will learn to develop black and white film, and process black and white images as well as use Photoshop on the computer to generate ink-jet prints. Cameras are available to sign out with parental permission. Paper and film supplies are provided for class assignments. Paper and film for projects beyond the class expectations will have to be purchased by the student.

### Photography II

*Grades: 10-12*

*CR: 1/2 - Semester*

*Prerequisites: Design or Historical Techniques of Western Art and Photography I*

Photography II emphasizes composition, advanced camera skills and printmaking skills in both film and digital formats. Photographs will be produced to develop individual portfolios. Cameras are available to sign out. Paper and film supplies are provided for class assignments. Paper and film for projects beyond class expectations will have to be purchased by the student.

### Pottery

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisites: Design or Historical Techniques of Western Art*

Emphasis is on understanding technique, form and glazing of handmade pottery. Students will work with stoneware clay on the pottery wheel and work with hand building techniques to make functional and sculptural pottery.

### Printmaking I

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Design or Historical Techniques of Western Art*

This course is an introduction to printmaking. Students will be introduced to monoprint, linoleum print and drypoint. Emphasis will be placed on multiple images, series, and exploring a wide variety of printing ideas. Students will work toward a personal style.

### Sculpture

*Grades 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Design or Historical Techniques of Western Art*

The sculpture course is an introduction to working with 3-dimensional materials and techniques. Students explore mold making, plaster carving, armature building in wood and paper mache to support a clay self portrait, and wax sculpting. A highlight of the course is a visit from guest artist Glen Campbell. He sets up a temporary bronze foundry at Hanover High School, and casts the student's wax models into bronze. Students are encouraged to develop their own creative solutions using the material presented. Research projects and sketch books are required.

### Independent Art

*Grades: 10-12*

*CR: 1/2 - Semester*

*Prerequisites: Design or Historical Techniques of Western Art plus a studio course*

This course provides an opportunity to do concentrated work on unique projects of interest for advanced students who have already acquired art skills and have demonstrated in previous art courses the individual motivation and seriousness necessary to sustain an independent curriculum. A written statement outlining a proposed program of study must be submitted and approved within the first week of the semester. A student who needs help with developing a proposal should consult directly with the art teacher. Those who do not develop an adequate proposal of study will be dropped from the course.



## Technical Arts Courses

### Architectural Drafting I

*Grades: 9-12*

*CR: 1/2*

*Prerequisite: None*

Architectural Drafting I is an introductory course for students interested in learning how to draw and evaluate house plans. Students will gain an understanding of drafting techniques, Computer Assisted Drawing (CAD) and will be able to experiment with basic house designs and room layouts. They will gain an understanding of energy efficient houses and include these concepts in the design of their concept home. Students will be encouraged to use their imaginations.

### Architectural Drafting II

*Grades: 9-12*

*CR: 1/2*

*Prerequisite: Architectural Drafting I*

Architectural Drafting II is a continuation of Architectural Drafting I with special emphasis on the design of a multi-family complex. Presentations may be made by several experts in the community (Architects, Engineers, and Designers). Lab work will include the practical application of these lectures. In addition, this course will focus on the financial aspects of this project.

### Woodworking I

*Grades: 9-12*

*CR: 1/2*

*Prerequisite: None*

Woodworking I is an introductory course for students who have had little or no experience in woodworking. This course provides the students an opportunity to experiment with machines and woodworking construction techniques as they build a project of their choosing. Individual instruction will be given on all machines with a high regard to safety and usage. In addition, each student will be instructed on each new phase of construction encountered as he/she moves along the way toward project completion.

### Woodworking II

*Grades: 9-12*

*CR: 1/2*

*Prerequisite: Woodworking I*

Those students who have had a basic woodworking course and want to pursue woodworking to a greater depth. Emphasis will be placed on advanced construction techniques and advance methods of using specialized equipment, adhesives and finishes.

### Independent Technical Arts Course

*Grades: 9-12*

*CR: 1/2*

*Prerequisite: Successful completion of one technology course and prior instructor approval.*

This is an independent study course designed to give access to further study in Architecture or Woodworking. Successful completion of one of the basic core courses is a prerequisite for independent study and aspects of this course must be included in the independent study proposal. The subject can be the student's choice and must be agreed upon, jointly, in conference with the instructor with whom the student will be working. Student and instructor will develop a contract during this conference and this contract will be the student's blueprint throughout the project. In all instances the approval of the instructor is mandatory prior to the initiation an independent course.

## Business Education

*Most HHS Business courses will not be taught within the regular high school program. The Guidance Department will utilize independent study options; Hartford Vocational Program, local community college programs, for students who are interested in business education.*

### **A Survey Of Accounting**

*Grades 9-12*

*CR: 1 - Full Year*

*Prerequisite: None*

Accounting is the language of business and small businesses make up the majority of the free enterprise system in America. Explore the field of small business management while obtaining a basic understanding of accounting principles. This course will provide a foundation upon which students can build as they further their education in accounting or business management after high school.

## Computer Education

*The Computer Education Department's main thrust is to meet the requirement for graduation. In addition, students interested in working with computers in depth have additional options.*

### ICT Portfolio Requirement

*Grades: 9–12*

*CR: ½ Pass or fail*

*Prerequisite: None*

Students are required to demonstrate technology proficiency in order to graduate. If you choose not to take a computer class, you may opt to complete an independent technology portfolio to meet that requirement. Students choosing the portfolio should notify his/her guidance counselor and meet with Mrs. Patten to receive instructions.

### Computer Programming

*Grades: 9–12*

*CR: 1/2*

*Prerequisite: Algebra II or permission of Instructor*  
*Semester 2*

This course provides an initial exposure to the fundamentals of hardware, networks, programming languages, and graphics. These fundamentals will be followed by the study of logic, flow control, objects, and classes.

### Programming in Action

*Grades: 10–12*

*CR: 1/2*

*Prerequisite: Computer Programming or permission of Instructor*  
*Semester 2*

The primary goal of this course is to provide students with a “real-world” development environment—teaching skills such as collaboration, communication, information architecture, product design, version control, Q/A methodology etc.

Students would either join an established development effort or would work on a project for a client at HHS. The programming language would be determined by the needs of the project.

### Introduction To Information And Communication Technologies (ICT)

*Grades: 9–12*

*CR: 1/2*

This course is the introductory course for computer technology at HHS. Throughout the semester students will have the opportunity to master basic technology concepts where needed, but more importantly they will explore new and evolving technologies in areas such as digital video, information literacy, podcasting, robotics, and web design. There are no prerequisites for this course.

### Web Communication & Design

*Grades: 9–12*

*Credit: 1/2*

*Prerequisite: Computer Literacy*

Students work as a team to create a major website, collaborating as project managers, art directors, content managers and technical engineers. Students will create web pages using XHTML and CSS. In addition, students will become proficient in current graphics and web development tools. In order to be successful in this course, students must have excellent basic computer skills.

## Debate

### Debate I

*CR: 1/2 to 1 (1<sup>st</sup> semester or full year)*

*Grades 9-12*

*Prerequisite: None*

Debate I will introduce students to competitive public speaking through participation in both individual and team events.

Emphasis is placed on rhetorical development, critical research skills, and cooperative teamwork. The class fosters an ongoing awareness of current events and encourages students to formulate and express viewpoints on a variety of social and political issues.

### Advanced Debate

*CR: 1/2 to 1 (1<sup>st</sup> or 2<sup>nd</sup> semester or full year)*

*Grades 10-12*

*Prerequisite: Grade of B or better in Debate I, recommendation of previous speech /debate teacher, and agreement to tournament participation requirement.*

Students will learn debating skills, primarily for interscholastic tournament competition. The class will cover the thinking processes and research techniques to develop arguments, as well as the speaking skills to present, refute and defend ideas.

## Drama

### Drama!

*Grades 9-12*

*CR: 1/2*

*1st Semester*

Do you like to ham it up in front of your friends? Or would you simply like to become more comfortable in front of groups of people? In either case, consider taking Drama. Drama is an introduction to acting techniques for the stage which will include exercises and improvisations in concentration and imagination. Students will also memorize scenes and monologues. In addition to acting, students will study lighting design, sound design, scene design, stage management and text analysis. Students will develop a children's show, and at the end of the semester perform in one-act plays.

### Drama, The Sequel

*Grades 9-12*

*CR: 1/2*

*2nd Semester*

*Prerequisite: Acting and Production, Drama!, or previous participation in a Footlighter's production*

This course will focus on the elements necessary to producing a play. Work on acting continues with an added study of techniques for auditioning. Besides acting for the stage, students will also develop their acting for film. Costume design, make-up design and publicity will be included. In addition, directing will be introduced, culminating in each student directing at least one scene or a one-act play.

## Dresden Plan

*The Dresden Plan serves students at Hanover High in a variety of ways. Students in need of academic support can request assistance through the Advisor Program. A staff advisor will be assigned to work closely with the student to develop goals, obtain progress reports from teachers and meet regularly with the student to make plans for improving school performance.*

*The Dresden Plan can also assist students who are talented or who have strong interests in developing academic credit-earning experiences through community mentors, independent study, senior challenge, internships, work/study and volunteer service courses.*

### Advisor Program

The purpose of the advisor program is to provide students regular contact with a staff advisor who serves as his/her advocate. The advisor serves as a contact person for students and parents. Working together, the student, parents and advisor establish a plan for improving the advisee's academic performance. Regular meetings between the advisor and advisee are arranged and the time is devoted to: reviewing academic progress, planning for continuing academic success, providing tutoring as needed, and discussing any problems interfering with the advisee's school performance. Advisors may assist advisees in college and career planning. Special services such as testing and counseling may also be arranged by the advisor.

### Academic Courses

#### Community Mentor

*CR: 1/2 Semester*

A student who has particular skills or interests and wishes to pursue them in greater depth is invited to discuss them with the Dresden Plan director. The director will assist the student in matching her/his interests with a person willing to share in the area of expertise needed. The student may participate in the program on a short term basis such as one day or a few afternoon meetings. No academic credit will be awarded for short term plans. Academic credit will be awarded if the following requirements are met. The student must spend a minimum of five hours each week doing work relevant to the experience with the mentor. A learning contract must be developed as the first task stating long and short term goals, basic activities, and what the student and mentor can expect from each other. The student must keep a log stating what he/she has done with the mentor and what learning has taken place. At the end of the term, the student must submit a paper outlining all of this information, including a report of outcomes from the work, with evidence of self reflection.

#### Independent Study

*CR: 1/2 - Semester*

A student wishing to enroll in this program must discuss her/his goals and ideas with the Dresden Plan director. They will identify an appropriate advisor who will assist the student to complete a guide sheet identifying long and short term goals as well as the necessary steps to meet the goals, projected deadlines, and the criteria for success. Wherever possible, the work should result in some product, such as a major paper, a presentation, or observable project or performance. The student must meet with the advisor weekly and keep a written record of progress in the study.

#### Internship

*Semester-1/2 Credit Full Year-1 Credit*

*For Juniors and Seniors*

An internship is a work-based learning experience giving students an opportunity to gain knowledge and skills in a career field of their choice. Students will develop a resume, conduct a job search in a career field of interest, interview with interested companies or organizations in the local area, and work a minimum of five hours per week. Students will also document their hours and activities during their internship, complete a related project and summarize their experience in a multi-media presentation at the end of each semester. Internships are a great way to obtain paid part-time jobs and to enhance college transcripts and resumes.

#### Senior Challenge

*CR: 1/2 Semester*

Senior Challenge is an alternative educational opportunity offered during the senior year. A student who has particular interests which he/she would like to develop into a learning project is invited to discuss the ideas with the director and complete a planning sheet. Together, they will create a program of activities or study with specific goals and timelines. The student is expected to meet at least bi-weekly with the director or the assigned advisor to discuss progress. It is necessary to keep a journal to record progress and to reflect on the process of the project. At the end of the term, the student must submit a paper outlining this information, including a report of outcomes from the work.

**Volunteer Service****CR: 1/2 Semester**

Volunteer Service is a program designed for students who wish to combine their work in school with service in the community. Its objectives are threefold. First, the program provides a direct service to the community by placing volunteers in hospitals, schools, day care centers, nursing homes, and other organizations. Second, the program enables high school students to develop an adult role involving taking responsibility in their community. Third, the program helps volunteers to critically examine and reflect upon their work through an in school academic component. The student will meet regularly with the teacher, spend a minimum of 5 hours each week at the service site, keep a journal and complete a research paper related to the area of service.

**Work/Study****CR: 1/2 Semester**

A student participating in the work study course must be employed during the entire credit earning period in order to earn school credit. The student must meet weekly with an advisor and keep a log commenting on what he/she is learning. There will be specific assigned topics relevant to the work experience. Meetings will be held with a Dresden Plan staff member and a guidance counselor to determine future vocational opportunities of interest to the student. Anyone interested in this course must discuss the possibility with the Dresden Plan director and obtain approval from parents and the employer. To obtain credit, in addition to the activities mentioned above, the student must work at a regular job a minimum of 5 hours each week throughout the semester.

## Senior Bridges Interdisciplinary Project

*Seniors are invited to engage in independent study projects in **any** subject area, perhaps extending beyond the boundaries of our current curriculum. Although Senior Bridges interdisciplinary projects can be in any area of student interest, each will require that the student research the topic, work with a mentor, write a substantial paper, create a tangible project illustrating what was learned/accomplished, and prepare a presentation about the topic for an audience of teachers and students. Credits and course hour commitments will be determined on an individual basis, depending upon the scope of the project.*

## English

### Our Program

English courses are required for all four years at Hanover High School. All ninth graders take a year-long genre survey course intended to elevate their skills and knowledge in preparation for their effective participation in the elective program in subsequent years. In grades ten through twelve, students may select from the department's rich array of elective offerings.

Because our aim is to match individual students with the course and area of study best suited to their needs and interests, the English Department does not designate elective classes by grade level, nor do we have a required sequence of courses which all students must take. We do require that students take at least two literature and one writing course.

In place of more elaborate requirements, we require that students each year review with their current teachers their progress to date, their success in developing fundamental skills, their evolving intellectual interests, and so forth. Based on this individual review of a student's needs, courses are chosen for the following year.

### Guidelines

Students must take at least one writing course. Students may take no more than two writing courses overall. However, Fiction Writing and Journalism only count as a writing course for those students who need the writing credit. Please note though, the English Department strongly discourages students' taking two writing classes (APW, Comp I, Comp II, SWS, Journalism, Fiction Writing) in successive semesters either year-to-year or in a single year.

Students interested in either Senior Bridges for English credit or IRW should as juniors choose a first, second, and third choice for an English course and fill out the registration form in February — just as they would if they were not anticipating doing a Senior Bridges project or applying for IRW. Students will apply for IRW in the fall of their senior year. See the Senior Bridges section in this handbook.

### Course Offerings

#### Mandatory Courses

English 9

#### Literature Courses

American Renaissance  
Classic English Novels  
Coming of Age  
Contemporary American Culture/History  
Early American Literature  
Early English Literature  
Fantasy Literature  
Greek Myths  
Later American Literature  
Later English Literature  
Mystery & Adventure  
Myth & Ritual  
Poetry  
Reading American Books  
Russian Literature  
Science Fiction  
Shakespeare  
Short Fiction  
Short Story Masterpiece  
The Rebel in Literature  
Twentieth Century Literature  
World Classics

#### Writing Courses

Advanced Prose Writing  
Composition I  
Composition II  
Fiction Writing  
Journalism  
Senior Writing Seminar

#### Other Electives

Acting and Production  
Business Communication  
Individual Reading & Writing  
Media Literacy: From Video to Web 2.0  
Philosophy  
Reading & Rhetoric

## Phases

Most elective courses are given phase designations indicating the relative difficulty of each class. Phase I courses are the least demanding. Phase 5 (Honors) courses are the most demanding. Some courses are grouped so heterogeneously — English 9 and some writing courses, for example — that no phase is indicated.

The phase level of a course is a reflection both of the quantity of reading and writing (see chart below) and of the difficulty of content in the course. For unphased courses, please refer to the course descriptions in the following pages.

<b>Course Difficulty</b>	<b>Average Nightly Reading</b>	<b>Number of Papers</b>
Phase 1	10-20 pages	2 papers
Phase 2	10-25 pages	3 papers
Phase 3	10-35 pages	4 papers
Phase 4	10-45 pages	5 papers
Phase 5	10-60 pages	6 papers

## Honors Courses

Each semester one or more honors courses (Phase 5) are offered for students who have outstanding potential and interest in the field of English. Students in Honors English should have demonstrable skills in reading and writing, and be beyond the need for remedial work in language arts. They must be committed to study which includes: Extensive reading: 30-50 pages per night (200-250 per week), depending on difficulty and genre. Readings will be assigned on weekends and over vacations as well.

Weekly short writing assignments and four to six longer, polished writing assignments requiring drafts and revisions outside of class time. Final drafts must be typed and be error-free. Papers should demonstrate depth, complexity, and the ability to focus on an issue at depth.

Frequent essay tests that underscore critical abilities and understanding of class work.

May include research assignments on background and critical works. Probably will include oral reports or exams.

The English Department hopes that each student who has the desire and the commitment to work very hard will consider an Honors class. Be advised, though, that we intend to uphold these standards in all Honors classes. Some students will choose to remain in Honors classes even though their grades are low, because they welcome the challenge. Students should consider their total course loads, sports commitments, and other extra-curricular activities before choosing an Honors course.

Students who wish to consider the Advanced Placement option for Language and Composition, and Literature and Composition, please refer to the Advanced Placement opportunities section in the handbook.



## Literature/Reading Courses

### American Renaissance

*Grades: 11-12 • Credit: 1/2 • Phase: 5 (Honors)*

*Prerequisite: None Not offered 13-14*

American Renaissance introduces students to major writers of mid-nineteenth-century America: Emerson, Thoreau, Poe, Whitman, Hawthorne, Melville, and Dickinson. Emphasis is placed upon the exciting intellectual and cultural background of the time period: Romanticism, Victorianism, Transcendentalism, an evolving indigenous American intellectual tradition. Students are expected to read carefully, participate in class discussions, and write papers of depth and sophistication.

### Classic English Novels

*Grades: 11-12 • Credit: 1/2 • Phase 5 (Honors)*

*Prerequisite: None*

Classic English Novels is a study of the English novel from the 17th to the 20th century. The reading is demanding, and students are expected to be prepared for class discussions. Students write analytic papers and discuss critical essays. The novels that might be included are: *David Copperfield*, *Frankenstein*, *Jane Eyre*, *Pride and Prejudice*, *Sons and Lovers*, *Wuthering Heights*, and *To the Lighthouse*.

### Coming Of Age

*Grades: 10-12 • Credit: 1/2 • Phase: 4*

*Prerequisite: None*

In this class students will read a variety of texts from different periods and cultures that explore the question of what it means to "come of age." Titles may include the Medieval French text *Yvain*, *David Copperfield*, *Jane Eyre*, *Go Down Moses*, *The Color Purple*, and *Extremely Loud and Incredibly Close*. In addition to more formal literary analysis essays, there will be a number of creative written assignments and projects in which students respond to issues raised in class and in which students explore their own experiences coming of age.

### Contemporary American Culture

#### Contemporary American History

*Grades: See below • Credit: 1/2 • Phase: 3*

*Prerequisite: None*

1st Semester: Juniors only / 2nd Semester: 10-12

Fall Semester: If forty juniors enroll, two sections of Contemporary American History and Culture (CAC/CAH) will be team-taught as an interdisciplinary course with the Social Studies Department. The classes will be taught in adjacent time slots, allowing for occasional group meetings and two-hour activities: plays, speakers, student projects, movies, field trips. The course is arranged thematically to allow a study of American culture as reflected in literature, film, art, and music since World War II to the present. Students will be urged to frame their own answers to these questions: Who are we? What does it mean to be an American? What problems do we face? What suggestions do our writers, historians, filmmakers, musicians and artists offer? Spring Semester: Contemporary American Culture will be offered as a regular English course with no Social Studies component attached.

### Early American Literature (EAL)

*Grades: 10-12 • Credit: 1/2 • Phase: 4*

*Prerequisite: None*

Early American Literature is a survey of American literature from colonial days to the time of the Civil War and beyond. The student should be prepared not only to do extensive reading during the semester, but also to write creative and serious papers which are related to the literature being read and to the American experience. Included among the works which may be read are: Twain's *Huckleberry Finn*, Hawthorne's *The Scarlet Letter*, Miller's *The Crucible*; short stories by Irving, Hawthorne, Poe, and Melville; essays and other writing by Wm. Bradford, Franklin, Irving, Emerson, J. Smith, and Thoreau; and poetry by Bradstreet, Taylor, Bryant, Poe, Whitman, Melville, and Dickinson.

### Early English Literature (EEL)

*Grades: 10-12 • Credit: 1/2 • Phase: 4*

*Prerequisite: None*

This course is a literary and cultural survey of works from the 8th century to the early 16th century, written in the British Isles. *Beowulf*, *The Canterbury Tales*, *Everyman*, *Sir Gawain and the Green Knight*, Anglo-Saxon poetry, and parts of the Arthur Legend are included. Art and music will be explored to enhance literary understanding.

### Fantasy Literature

*Grades: 10-12 • Credit: 1/2 • Phase: 2*

*Prerequisite: None*

The genre of fantasy literature, while drawing its inspiration chiefly from ancient myth and medieval legend, serves as a lens through which we view and make sense of our modern age. The work of the course — including class discussions, presentations, papers, and tests — will offer students the opportunity to explore such literary worlds as Tolkien's *Middle-earth*, LeGuin's *Earthsea*, and Lewis's *Narnia* not only in readings but also through art, music, and film.

### Greek Myths

*Grades: 10-12 • Credit: 1/2 • Phase: 4*

*Prerequisite: None*

Greek Mythology introduces students to the timeless tales of gods, goddesses, and heroes in ancient Greece. Readings include various myths, examples of Greek drama, poetry, and the *Iliad* and *Odyssey* of Homer. There are tests, oral reports, and compositions based on the reading. Steady effort is expected.

### Later American Literature (LAL)

*Grades: 10-12 • Credit: 1/2 • Phase: 3*

*Prerequisite: None*

Later American Literature is a survey of American literature from the first half of the twentieth century framed by the idea of the American Dream. The reading list for the course is extensive and may include novels such as Fitzgerald's *The Great Gatsby*, Hemingway's *The Sun Also Rises* and Hurston's *Their Eyes Were Watching God*. Plays may include *Death of a Salesman* by Arthur Miller and *Fences* by August Wilson. Students may also study the poetry of World War I and a collection by Robert Frost. Assessments will include traditional literary analysis essays, creative projects, poetry explication, quizzes, tests and class participation.

**Later English Literature (LEL)***Grades: 10-12 • Credit: 1/2 • Phase: 3**Prerequisite: None*

Later English Literature is a survey of English literature from the late 17th through the 20th centuries. While the reading list is extensive, emphasis will be placed on reading shorter works or excerpts of longer works by representative authors of each period. There will be at least two novels included among the readings. All works are studied against the intellectual background of the time in which they were written. Among authors and works to be studied are The Cavalier and Metaphysical poets of the 17th century; Pope and Swift from the eighteenth century; Romantic poets Blake, Wordsworth, Coleridge, Shelley and Keats; Swinburne, Pater and Hardy from the Victorian Age; and Eliot from the 20th century. Requirements will include tests and quizzes, analytic and creative essays, and extensive class participation.

**Mystery & Adventure***Grades: 10-12 • Credit: 1/2 • Phase: 1**Prerequisite: None*

This course will involve a study of the murder mystery, detective fiction, and horror genres, including short stories, plays, novels, and film. Readings may include: Robert Cormier's *The Rag and Bone Shop*, Reginald Rose's *12 Angry Men*, Markus Zusak's *I Am The Messenger*, and Stephen King's *Night Shift*, plus a variety of short stories, including those by Holmes, Christie, and Poe. Films may include: Hitchcock's *Rear Window*, D.J. Caruso's *Disturbia*, Kubrick's *The Shining*, the documentary *Murder on a Sunday Morning*, and the TV shows *The Dead Zone*, *House*, and *Monk*. Students will be required to read and complete homework assignments outside of class. They will also be expected to read and write in class and to contribute regularly to class discussion. Assessments include reading journals, tests, quizzes, creative and analytical papers, oral presentations, projects, and active participation during class discussions.

**Myth & Ritual***Grades: 10-12 • Credit: 1/2 • Phase: 2**Prerequisite: None*

This course is designed to improve a student's ability to read and think critically. By studying the elements of mythology and archetypal symbolism, students will be better able to recognize, interpret, and analyze literature and film. Readings may include, *Gilgamesh*; White's *Charlotte's Web*, Borland's *When the Legends Die*, Hesse's *Siddhartha*, and Lewis's *Out of the Silent Planet*. Films may include, *The Legacy of Star Wars*, *The Power of Myth* "The Hero's Adventure," *Pow Wow Highway*, *The Way Home*, and *The Snow Walker*. Assessments include reading journals, tests, quizzes, creative and analytical papers, oral presentations, projects, and active participation during class discussions. *Please note: This course does not include Greek myths. Some familiarity with the early Star Wars films (IV-VI) would be helpful.*

**Philosophy***Grades: 11-12 • Credit: 1/2 • Phase: 4**Prerequisite: None*

The purpose of this course is to help students to develop a clear sense, both conceptual and historical, of the ideas that underlie and link material studied in the various academic disciplines and to introduce students to the joy and excitement which philosophical thought can afford. We begin with a survey of fundamental issues in philosophical thought. Among these might be the nature of good and evil, the problem of identity, free will vs. determinism, cosmological and theological questions, the problem of knowledge (epistemology), metaphysics, the nature of beauty (aesthetics), existentialism, the philosophy of science, the influence of non-

Western thought on the Western tradition, etc. Following a survey of topics selected from among the above, we undertake a more detailed chronological study of a number of individual philosophers.

These will vary from year to year, depending on student interest and on relevance to topics under study in other courses in the school. Students will participate in rigorous and ardent discussion of an array of challenging ideas, discussion that will reward a genuine and sustained intellectual curiosity. Accountability is by means of papers, tests, and class participation.

**Poetry***Grades: 10-12 • Credit: 1/2 • Phase: 3**Prerequisite: None*

This course is for students who enjoy poetry: reading it, writing it, interpreting it, and discussing it! We will learn to appreciate many kinds of poetic forms and follow a survey from the Renaissance to contemporary English, Irish, and American poetry. Both creative and academic writing is required.

**Reading American Books***Grades 10-12 • Credit: 1/2 • Phase: 1**Prerequisite: None*

In this course we explore issues relating to American culture and identity as addressed by a range of American writers. Readings may include *The House on Mango Street* by Sandra Cisneros, *Montana 1948* by Larry Watson, short stories and poetry by Sherman Alexie, and the graphic novel *Maus* by Art Spiegelman. We will also watch and analyze films that connect to the literature we read. Requirements include a reading journal, tests and quizzes, creative and analytical papers, individual and group projects, and active participation in class discussion.

**Russian Literature***Grades: 11-12 • Credit: 1/2 • Phase 5 (Honors)**Prerequisite: None Not offered 13-14*

Russian Literature is designed for the student who is an excellent reader and writer and whose discussion skills (questioning, clarifying, listening, stating) are well developed. The student is, thus, ready to work with demanding literature and to develop critical essays. The course is a survey of fiction written by nineteenth- and twentieth-century Russian and Soviet writers. Nineteenth-century works include Pushkin's "Queen of Spades," Gogol's "The Overcoat," Turgenev's *Fathers and Sons*, Dostoevsky's *Crime and Punishment*, Tolstoy's "The Death of Ivan Ilych," and Chekhov's *The Seagull*; twentieth-century works are Zamyatin's *We*, Solzhenitsyn's *One Day in the Life of Ivan Denisovich*, Tertz's *The Trial Begins*, and Daniel's *This Is Moscow Speaking*. Outside reading may include *Anna Karenina* and *The Master and Margarita*.

**Science Fiction***Grades: 10-12 • Credit: 1/2 • Phase: 2**Prerequisite: None*

Science Fiction is an important genre in modern literature. In this course, students will read and view some of the classics as well as modern examples found in novels, short stories and videos. Major works may include Bradbury's *Fahrenheit 451*, Dick's *Do Androids Dream of Electric Sheep*, DuPrau's *City of Ember*, Orwell's *1984*, and Card's *Ender's Game*. Videos may include *Gattaca*, *Minority Report*, and the classic *2001: A Space Odyssey*. Class discussion, papers, and tests will comprise the major work in the course.

**Shakespeare***Grades: 11-12 • Credit: 1/2 • Phase: 4**Prerequisite: None*

Shakespeare is a study of dramatic literature; thus, the material in the course invites careful reading, visualization, discussion, and performance. Five or six plays are chosen for any given semester from the histories, comedies and tragedies. Selected sonnets will also be studied. Projects may include live performances, journals, or creative assignments. Several analytical papers are required.

**Short Fiction***Grades: 10-12 • Credit: 1/2 • Phase: 1**Prerequisite: None*

In Short Fiction, students will read short stories and poetry and watch appropriate films. They will use the text *Characters in Conflict* and study how to analyze stories. Course work will also include papers and tests.

**Short Story Masterpieces (SSM)***Grades: 10-12 • Credit: 1/2 • Phase: 3**Prerequisite: None*

Short Story Masterpieces is designed to study the short story as an art form. Students are expected to engage actively with the reading through class discussions and written responses. In addition to developing critical reading skills, this course helps students learn to recognize, appreciate, and react to a variety of writing styles. Authors studied may include Edgar Allan Poe, Anton Chekhov, Charlotte Perkins Gilman, James Baldwin, Ernest Hemingway, William Faulkner, Flannery O'Connor, John Cheever, Raymond Carver, and Alice Walker, among others. Assessments include standard literary analysis essays as well as reading journals and creative projects. Students will also explore a single author through a multi-faceted independent project.

**The Rebel in Literature***Grades: 10-12 • Credit: 1/2 • Phase: 2**Prerequisite: None*

In *The Rebel in Literature*, students will gain an appreciation of Western literature from the point of view of the rebel, the protagonist who defies or isolates himself from traditional value systems or community. We will study especially what is the nature of the rebel; how in spite of his resistance and separation, he is often defined by that against which he rebels; why he needs to seek isolation from the surrounding communities; and what the rebel can show us about our culture and humanity. Readings may include *The Rule of the Bone*, *The Chocolate War*, *The Outsiders*, *The Disreputable History of Frankie Landau-Banks*, and *Persepolis*. Films such as *One Flew Over the Cuckoo's Nest*, *Pink Floyd The Wall*, and *Cool Hand Luke* will also be an important part of the course. Reading, writing essays and reflective pieces, and developing creative projects will all be essential components of the class.

**Twentieth Century Literature***Grades: 11-12 • Credit: 1/2 • Phase 5 (Honors)**Prerequisite: None*

Twentieth Century Literature examines novels, plays, and poetry that establish the modern tradition in the western world. Readings for the course may include Conrad's *Heart of Darkness*, Eliot's *The Waste Land*, Joyce's *A Portrait of the Artist as a Young Man*, Woolf's *To the Lighthouse*, Mann's *Death in Venice*, Kafka's *The Trial*, and Camus's *The Stranger*. An Absurd play festival culminates the course.

**World Classics***Grades: 10-12 • Credit: 1/2 • Phase: 3**Prerequisite: None*

World Classics introduces students to books well known throughout the world. Different themes are emphasized each year. Titles may include Cervantes' *Don Quixote*; Moliere's *Tartuffe*; Achebe's *Things Fall Apart*; Dickens' *A Tale of Two Cities*; Buck's *The Good Earth*; Rostand's *Cyrano de Bergerac*; Voltaire's *Candide*, and Bryce Courtenay's *The Power of One*. Students will also be expected to complete an independent world classic of their choice. Students should be willing to read enthusiastically and to share opinions in class discussions. Essays, tests, projects and quizzes reward the diligent.

## Composition/Writing Courses

### Advanced Prose Writing (APW)

*Grades: 12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: None*

Advanced Prose Writing seeks to enhance students' creative, non-fiction prose writing. Students will craft a minimum of five major essays, which may include the following forms: a response to a college application question, a critical review, a biographical profile, an argument/thesis essay, various personal reminiscences, and an essay exploring a place or object. Participants will read a minimum of twenty essays and one to three book-length non-fiction works by authors such as Jonathan Swift, Russell Baker, Steinbeck, Dillard, Durrend, Kincaid, and Mailer. Students will be expected to work effectively by themselves and in groups, frequently sharing their essays through peer review.

### Composition I

*Grades: 10-12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: Teacher Recommendation*

Composition I is a course designed to help students to learn how to write in considerable detail and learn how to write more easily. By the end of the course, most students will be able to write a composition of five paragraphs or longer compositions of several pages. Students will study vocabulary, grammar, model essays, read at least two books and practice editing skills. Students read non-fiction, fiction, and keep a portfolio.

### Composition II

*Grades: 10-12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: Teacher Recommendation*

Composition II is intended for the student who can already write in detail. Students receive instruction in specific kinds of writing assignments, which may include description, comparison, character study, literary analysis, personal narrative, and persuasion. Students also practice writing in-class essays. Students read non-fiction and fiction, keep a portfolio, and study grammar and vocabulary.

### Fiction Writing

*Grades: 10-12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: None*

In Fiction Writing students write narrative sketches and short stories; learn to use the various techniques of fiction writing such as dialogue, character development, and description; read pieces of fiction in order to analyze how professional writers use fiction writing techniques; and learn to discuss, analyze, and critique each other's work.

### Journalism

*Grades: 10-12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: None*

Journalism is a writing course designed to expose the student to various periodical article formats. Using local and national papers and magazines as models, students will write a minimum of six articles, ranging from news pieces to sports to editorials, and will participate in peer-review of their work. If a student enjoys delving into current events and issues, this course will provide a refreshing opportunity to experiment with different styles and techniques.

### Senior Writing Seminar (SWS)

*Grade: 12 • Credit: 1/2 • Phase: 5 (Honors)*

*Prerequisite: None*

Senior Writing Seminar is an advanced writing course in which students select their own topics and choose the prose forms that best present them. Students are expected to write at least seven major papers, to read extensively outside class, to take in-class essay tests, and to meet for conferences with the teacher and other classmates. Students applying for this course should be competent writers who are prepared to push themselves in thinking and writing, and to give and receive criticism with grace.

## Other Electives

### Acting & Production

*Grades 10 – 12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: None*

The focus of this course will be learning how elements of acting can improve any student's effectiveness. Acting and Production will benefit both those with and those without an interest in pursuing acting beyond the course. We will explore such issues as public speaking, memorization, relaxation and communication skills. Our reading and writing will be based on plays, scenes and monologues with an emphasis on the actor's approach to texts. The student taking this class should be prepared for multiple oral presentations in front of the class and possibly for audiences outside of the class as well.

### Business Communications

*Grades: 10-12 • Credit: 1/2 • Phase: 1*

*Prerequisite: None*

Effective communication skills, written and oral, are a must in today's business world. Students will complete exercises in grammar and punctuation and create a variety of business documents. They will practice listening and speaking skills. Student will work on resume building and job seeking skills, as well as read literature with a business emphasis.

### Individual Reading & Writing (IRW)

*Grade: 12 • Credit: 1/2 • Phase: N/A*

*Prerequisite: Department Approval*

Individual Reading and Writing is a course intended for the senior who would like to set up a regular program of reading and writing and would then pursue this "contracted" program for the semester. It is recommended that only students who can cope with an independent structure and who have fairly well-developed writing and interpretive reading skills apply for the course. This course is offered in the spring only. Students apply for admission during the fall of their senior year. Not all applications are approved, so students should sign up for another second-semester senior year English course in the usual manner, spring of their junior year.

### Media Literacy: From Video To Web 2.0

*Grades: 10-12 • Credit: 1/2 • Phase: 2*

*Prerequisite: None*

Media Literacy asks students to look critically at a wide variety of media formats. Students will examine films, web resources and print media with an eye towards topics such as bias, perspective, corporate influence, copyright, fair use, etc. By looking at these topics critically, students can become better, more informed consumers of all types of media. In addition, we will examine how each type of media requires different writing styles and techniques. Throughout the course students will complete several short critical essays as well as completing at least 1 short script, a website, a blog and a podcast.

### Reading & Rhetoric

*Grades: 10-12 • Credit: 1/2 • Phase: 3*

*Prerequisite: None*

Reading and Rhetoric is an advanced language skills course. This is the same level of difficulty as the phase 4 literature courses, but without their required reading per night and five papers per semester. The course will rapidly review the grammatical structure of the English language, focusing always on improving one's clarity and style of writing. It will also cover standard English usage and all punctuation. The course will contain practice samples of the SAT Reasoning Test Writing Section and ten classes on the SAT Critical Reading Section. Included in the course will also be vocabulary study and outside reading.

### Senior English Project

*Grade: 12 • Credit: 1/2 • Phase N/A*

*Prerequisite: See Senior Bridges Project*

Senior English Project is for the student who can work well independently and who has a strong interest in examining some area of English in depth. Past projects have included writing a novel, directing a play, producing a baby-sitting manual, making an educational film on ice hockey, researching the poetry of Richard Eberhardt, and photographing illustrations for a collection of his poetry.

## 2013-2014 Course Offerings by Semester

### Semester 1 Courses

*Phase Code Title*

#### Literature/Reading Courses

- ♦♦♦♦ 201 American Renaissance (No)
- ♦♦♦♦ 218 Classic English Novels
- ♦♦ 204 Contemporary American Culture\*
- ♦♦♦♦ 206 Early English Literature
- ♦♦ 219F Fantasy Literature
- ♦♦♦♦ 241F Later American Literature
- ♦♦ 209 Myth & Ritual
- ♦ 211 Reading American Books
- ♦♦ 213 Science Fiction
- ♦♦♦♦ 214 Shakespeare
- ♦♦♦ 215 Short Story Masterpieces
- ♦♦♦ 216 World Classics

#### Composition/Writing Courses

- 217 Advanced Prose Writing
- 202 Composition I
- 203 Composition II
- 208 Journalism
- ♦♦♦♦ 207 Senior Writing Seminar

#### Other Electives

- ♦♦♦♦ 210 Philosophy
- ♦♦♦ 212 Reading & Rhetoric

### Semester 2 Courses

*Phase Code Title*

#### Literature/Reading Courses

- ♦♦♦♦ 235 Coming of Age
- ♦♦♦ 238 Contemporary American Culture
- ♦♦♦♦ 205S Early American Literature
- ♦♦♦♦ 240 Greek Myths
- ♦♦♦♦ 241S Later American Literature
- ♦♦♦ 242 Later English Literature
- ♦ 243 Mystery & Adventure
- ♦♦ 261 Myth & Ritual
- ♦♦♦ 244 Poetry
- ♦♦♦♦ 232 Russian Literature (No)
- ♦♦♦♦ 246 Shakespeare
- ♦ 247 Short Fiction
- ♦♦♦ 248 Short Story Masterpieces
- ♦♦ 262 The Rebel in Literature
- ♦♦♦♦ 231 Twentieth Century Literature

#### Composition/Writing Courses

- 237 Composition II
- 239 Fiction Writing

#### Other Electives

- 233 Acting and Production
- ♦ 234 Business Communications
- 251 Individual Reading & Writing\*\*
- ♦♦ 263 Media Literacy
- ♦♦♦♦ 250 Philosophy
- ♦♦♦ 245 Reading & Rhetoric

NO = "Not offered" next year but will be offered again in 2014-2015

\* The 1st semester section of CAC is for *juniors* only; the 2nd semester section is open to the other grades.

\*\* Seniors must apply in the fall of their senior year.

## Foreign Languages

### Introduction

*Students at Hanover High School can broaden their horizons and become more aware citizens of the United States and the world through regular contact with a language and culture markedly different from their own. If the understanding among citizens from different countries of the world depends upon the quality and genuineness of communication between individuals of different nations, then it stands to reason that language learning by young people will serve to strengthen the bonds between countries and enrich the lives of the learners.*

*The continuing objective of the language program at the high school is to provide the best possible preparation for all students as individuals. Their personal goals, abilities and aspirations, and the expectations of their parents and the entire community, guide the nature of the language offerings.*

*The department offers four years of French, German, Latin, and Spanish. The immediate goal for each student is the acquisition of basic language skills. Each teacher attempts to create a sense of enthusiasm for the language, to instill in our students a feeling of joy at their accomplishments, and to provide the basis for a rich sharing of aesthetic and intellectual experience with other people throughout their lives.*

*German, French, and Spanish classes emphasize language as a means of verbal communication through practice in speaking and listening, and also offer extensive development in reading and writing. Latin classes emphasize language as a means of exploring the ancient world and of investigating its abundant connections to the modern one. In addition, students of both the modern and the classical languages also become acquainted with the geography, history, literature and art of her/his particular people. Periodic cultural trips are offered to France, Quebec, Germany, Austria, Switzerland, Italy and other classical sites around the Mediterranean, Spain, and Latin American countries.*

*Students in our courses are advised on course selection by their current language teacher who must approve their course registration sheet. Students not currently taking a foreign language should see the department coordinator. Students who would like to consider the Advanced Placement option for French, German, Latin, or Spanish, please refer to the Advanced Placement opportunities section of this handbook.*

### Honors Course Standards

*Students in our high honors courses will be held to rigorous standards regarding class preparation and participation, homework completion, and independent work. Accommodations are limited to those which do not compromise the rigor of the course. Students are expected to recall information on tests and quizzes without the use of such things as word banks, open books, note cards, or teacher-prepared class notes. Students are expected to participate orally in class (including responding aloud, oral partner and group work, and oral assessments) and, in modern language classes, to be able to present prepared reports orally to the class in the language of instruction.*

### Our Offerings

French	German	Latin	Spanish
French I	German I + Honors	Latin I + I Honors	Spanish I
French II + II Honors	German II + II Honors	Latin II + II Honors	Spanish II + II Honors
French III + III Honors	German III + III Honors	Latin III + III Honors	Spanish III + III Honors
French IV + IV Honors	German IV + IV Honors	Latin IV / RLT	Spanish IV + IV Honors
French V + V Honors	German V + V Honors	Latin IVH / VH (L) + (V)	Spanish V + V Honors
In this coming year our German Program is piloting a <b>German Essentials</b> course.			

**French**

*French is offered as a complete sequence of classes from beginning through advanced with both regular and honors classes after French I. French V Honors will prepare interested students for the Advanced Placement.*

*Note: No middle school age students will be advanced in French more than one level beyond their grade level. Example: An eighth grader who successfully completes French 2 Honors will be advanced to French 3 Honors and not to a higher level.*

**French I****French II****French II Honors****French III****French III Honors****French IV****French IV Honors****French V****French V Honors****French I**

*Grades: 9-12*

*CR: 1*

*Prerequisite: None*

This beginning course is thematically designed to promote and encourage communication in real life situations. The course is guided by national and international standards to develop listening, speaking, reading, and writing skills. Using many interactive online resources, students will improve their skills and content while also exploring many cultural aspects of the French-speaking world.

**French II**

*CR: 1*

*Grades: 9-12*

*Prerequisite: French I with a grade of C or better*

At this level, skill development continues to emphasize understanding and speaking. Short stories and non-fiction readings, appropriate to the skills of the students, are introduced. A tour of France (geography) and basic French history and cultural topics are the subjects of reading and discussion. Accurate expression of simple ideas in French is the goal of writing exercises.

**French II Honors**

*CR: 1*

*Grades: 9-12*

*Prerequisite: French I with a grade of B+ and approval of instructor*

This course is for students who have thoroughly mastered the skills and content of a multi-year French I program and will provide an experience equivalent to French II and French III in one year. Emphasis is placed on understanding and communicating oral and written French. Vocabulary expansion and intensive reading, including an introduction to French literature, are also important parts of the program. Students will participate in the National French Exam of the AATF and the annual recitation contest and will be well-prepared to go on to French III Honors upon completion of the course. An excellent, rigorous academic experience will be provided for

students who learn a language easily and who are able to work well independently.

**French III**

*Grades: 9-12*

*CR: 1*

*Prerequisite: French II with a grade of C or better*

The further development of the four skills is stressed and more emphasis is placed on reading and writing than in French I and II. Students are expected to express accurately both the spoken and written French of material adapted to this level. Vocabulary building in context is an important aspect of the French III course. Topics such as history, society, politics, education and art of French-speaking countries will be addressed.

**French III Honors**

*Grades: 9-12*

*CR: 1*

*Prerequisite: French II Honors with a grade of B or better*

This course is a continuation of the rigorous French II Honors course and focuses specifically on communication.

Development of the skills of understanding spoken language, speaking, reading and writing, is accompanied by cultural material including an exploration of the Francophone world.

Letter writing, essay writing, and short story writing are included in the writing program, which is integrated with the cultural and grammatical material of the course. Throughout the course we will study the structure and vocabulary of the French language through songs. The readings include short, original texts such as "L'Homme Qui Plantait des Arbres".

Students will participate in the National French Exam of the AATF and the annual poetry recitation contest. French III Honors offers a challenging, rigorous language experience to students at a faster pace and at a more advanced level than in a regular French course.

**French IV**

*Grades: 9-12*

*CR: 1*

*Prerequisite: French III with a grade of C or better*

This course is designed to promote and develop communicative skills in common, everyday situations or various themes. These themes will not only explore the contemporary issues of our day but also compare and contrast the historical, social, political and economic aspects of the twenty-first century. While reading short stories of WWII, anti-theater of Ionesco and the novel "L'Homme qui plantait des Arbres", students will develop vocabulary, expressions and review grammatical concepts. The course applies the content and skills learned in many interactive and technology supported projects and presentations based on national and international proficiency standards.

**French IV Honors**

*Grades: 9-12*

*CR: 1*

*Prerequisite: French III Honors with a grade of B or better*

Through an exploration of a variety of 20th century French texts (literature, film, music, photography and painting), students will strive to achieve more precise, nuanced and thoughtful written expression. In addition, students will



deepen their understanding of French grammar, enlarge their vocabulary and complete a series of exercises designed to sharpen their listening and speaking skills. Authors and artists to be studied include: Antelme, Camus, Roblès, Desnos, Eluard, Duras, De Beauvoir, Césaire, Beckett, Renoir, Godard, Tzara, Apollinaire and Duchamp. For the listening and speaking exercises, we will draw on French radio websites, such as France inter and Radio France International.

French IV Honors offers a challenging and rigorous language experience to students at a faster pace and at a more advanced level than a regular French course.

French IV Honors students will participate in the National French Exam of the AATF.

### French V

*Grades: 9-12*

*CR: 1*

*Prerequisite: Intermediate French with a grade of C or better*

This course is designed for all students who have successfully completed French IV. It is a selected survey of French history, literature and art which focuses in the first semester on the 17th through the 19th centuries. Contemporary cultural issues relevant to the historical study will be integrated and serve as a conduit for more abstract discussion of issues, perspectives and beliefs as well as more extensive writing assignments.

Vocabulary development will be derived from the readings, cultural and historical study and relevant contemporary topics. The second semester will focus on the contemporary issues of the 20th and 21st centuries of various francophone countries and the political, social and economic aspects involved. Students will continue to study grammatical concepts and to develop their second language learning skills: listening, speaking, reading, writing, observing and performing through interactive projects.

### French V Honors

*Grades: 10-12*

*CR: 1*

*Prerequisite: French IV Honors with a grade of B+ or better and recommendation from previous French teacher*

A rigorous, academic approach to expanding all four basic language skills. French 5 Honors students will survey French civilization from the Prehistory to the eighteenth century including literary excerpts from each century as well as complete works from the twentieth and twenty-first century. Contemporary themes will be compared and contrasted to evaluate historical relevance. This survey course will be the point of departure to enhanced oral, listening comprehension, reading and writing skills. Each student will improve his/her writing style through the study of various writing techniques. Grammar skills will be improved through comprehension and accumulative review, assessment and application of French grammar. Vocabulary will be developed and accumulated relevant to the themes of the course and will be integrated and used during class discussions. Students will participate in the National French Exam of the AATF and the Foreign Language Recitation Contest and will have the opportunity to complete the French 5H final project in an authentic environment in the french speaking city of Québec with various native francophiles. Additional preparatory sessions will be available to students interested in taking the Advanced Placement Test.

## German

*German is offered as a complete sequence of classes from beginning through advanced with both regular and honors classes. Students who come with prior knowledge of German or students who decide on accelerated language studies in German may take German V Honors, a bridging course between high school and college language instruction. Both, German IV Honors and German V Honors will help with the preparation for the new AP German Language and Culture exam offered starting in 2012.*

### German Essentials

#### German I

#### German I Honors

#### German II

#### German II Honors

#### German III

#### German III Honors

#### German IV

#### German IV Honors

#### German V Honors

### German Essentials

*Grades: 9-12*

*CR: 1*

*Prerequisite: None*

This course is designed to offer an introduction to foreign language study in general and German in particular. In comparison with the regular German I course, this class offers more individual support, a broader range of alternative learning strategies as well as a more student-oriented pace in the language learning process. The course, which will include introductory texts (in English) on cultural and historical aspects of the German language to broaden the understanding of the language, will cover about eight topic areas of introductory German with a focus on understanding written and oral texts as well as communication. The process of German language learning is the center of the class and will happen during class time. Consequently, most of the student's course work will be completed in class, with supporting vocabulary studies outside of the classroom. Students will work on the four fundamental communication skills: speaking (pronunciation and simple question/answer routines); reading (simple one-line to one-paragraph texts); listening (simple texts and simple question/answer dialogues and role plays); and writing (individual words and short sentences). The main course language will be English with an increasing amount of contributions in German towards the end of the course. Students who have successfully taken this course will be ready to continue in the regular German I course.

### German I and German I Honors

*Grades: 9-12*

*CR: 1*

*Prerequisite: For German I, none; for German I Honors, placement through consultation with the instructor*

This course introduces students to the basics of spoken and written German. The first few weeks concentrate on the correct learning of German sounds, sound combinations and the sound-letter-correlation in German. The four skills – listening, speaking, reading and writing – will be used almost from the beginning and will be developed to a point to allow

communication on an elementary level with a native speaker about simple everyday subjects. Basic grammar concepts are introduced as needed for a sound, academic foundation, with emphasis on communication. Class projects focus on selected events in German history and also cultural similarities and differences among all German-speaking countries in comparison with the USA. First-year students opting for honors credit will complete additional assignments and projects as prescribed by the teacher. Honors students in German I may also qualify for accelerated language studies.

The course uses chapters of Langenscheidt's "Berliner Platz 1" (part 1 & 2), "Optimal A1" and "Genial A1" course books.

### German II and German II Honors

*Grades: 9-12*

*CR: 1*

*Prerequisite:* German I with a grade of C or better or equivalent level of German (provided through level testing) for German II; German I Honors with a grade of B+ or better and teacher's recommendation for German II Honors.

These courses advance the four basic skills – understanding, reading, speaking and writing – to a point that allows more confident communication, with German II Honors setting higher expectations for more in-depth study at an advanced level. Emphasis will be on conversational speaking including practice with role plays and dialogues. Simple composition will be practiced. An in-depth study of grammar will help facilitate the use of the language. Reading of poems and stories, selected according to class level, will further the understanding of German culture as will the viewing of German vodcasts (public media productions) and films. Class projects focus on selected events in German history and cultural and social similarities and differences among all German-speaking countries in comparison with the USA. All students in Level II will take the National German Exam of the AATG in January. In the spring German II Honors students will participate in the German Language Diploma A2, which is the first level of three TOEFL equivalent exams (in April), and the annual recitation contest. The course uses chapters of Langenscheidt's "Berliner Platz 2", "Optimal A2" and "Genial A2" course books.

### German III and German III Honors

*Grades: 9-12*

*CR: 1*

*Prerequisite:* German II with a grade of C or better or equivalent level of German (provided through level testing); German II Honors with a grade of B+ or better and teacher's recommendation for German III Honors.

This course will reinforce and further all skills, with German III Honors setting higher expectations for more in-depth study at an advanced level. It will expand topics of previous language studies and introduce new topics for discussion in academic situations. The goals are to converse with ease about everyday life and in simple academic situations, and to write individual compositions on cultural matters. Viewing, analyzing, discussing, and writing about contemporary TV shows and films and studying music and art will add to understanding of German culture. Class projects focus on selected events in German history and cultural aspects of all German-speaking societies with a focus on Germany. Our third-year students have the opportunity to participate in a reciprocal exchange with our German partner school "Kurfürst-Ruprecht-Gymnasium" in Neustadt an der Weinstraße. All students in German III will participate in the

National German Exam of the AATG (in January). In early spring German III students will participate in the German Language Diploma A2, a TOEFL equivalent at the beginning of three available levels (in April); German III Honors students will participate in the German Language Diploma DSD 1, a TOEFL equivalent at the second of three available levels, in addition to the annual poetry recitation contest. The course uses chapters of Langenscheidt's "Berliner Platz 3", "Optimal B1" and "Genial B1" course books.

### German IV and German IV Honors

*Grades: 9-12*

*CR: 1*

*Prerequisite:* German III with a grade of C or better or equivalent level of German (provided through level testing); German III Honors with a grade of B+ or better and teacher's recommendation for German IV Honors.

The German IV course will further develop mastery of the four skills (listening, reading, speaking and writing) while focusing on German literature and film in the second semester, with the German IV Honors course setting higher expectations for more in-depth study at an advanced level. The first semester will focus on an extended video project which includes script writing, film shooting and video editing. The students will also prepare for national and international exams. In the second semester, students will read a selection of different types of literary texts produced after 1945. Students will learn and discuss how different historical periods from post-war until post-reunification have been reflected in literature and film.

They will acquaint themselves with basic concepts and terminology in German literary and film studies. Students will deepen their knowledge of the elements of analytical essay writing as well as of discussion techniques. All German IV students will participate in the National German Exam of the AATG (in January). In early spring German IV students will take the exam for the German Language Diploma DSD 1, a TOEFL equivalent at the second of three available levels; German IV Honors students may again take the exam for the German Language Diploma DSD 1 and may participate in the annual recitation contest. The course uses chapters of Langenscheidt's "Berliner Platz 3", "Optimal B1", "Aspekte 1", and "Orientierungskurs Deutschland" course books, as well as a selection of literary texts by Wolfgang Borchert, Heinrich Böll, Siegfried Lenz, Christoph Hein, Jens Sparschuh, and others.

### German V and German V Honors

*Grades: 9-12*

*CR: 1*

*Prerequisite:* German IV Honors with a grade of B or better or equivalent level of German (provided through level testing)

This course focuses on test and college-level language course preparation. Grammar, style and syntax will be reviewed as preparation for the SAT II and Advanced Placement exams and AP specific topics constitute focus of this course. Selected literary, historical, social, and cultural topics will be the basis for advanced academic discussion and essay writing. Thematically, the course focuses on modernism in selected short stories by Franz Kafka and Fritz Lang movies, autobiographical texts such as Hermann Hesse's *Unterm Rad* and Günter De Bruyn's *Zwischenbilanz*, pre- and post-reunification discourses in Thomas Brussig's novel *Leben bis Männer*, and minorities and the multicultural society in Germany in the 21st century from Günter Wallraff's *Ganz*

unten to *Aus der schönen neuen Welt. Expeditionen ins Landesinnere* and the movie *Kebab Connection*. The course also uses chapters from Langenscheidt's "Aspekte 1 and 2" as well as Hueber's "Ziele B2/1" course books. Students may take the exam for the German Language Diploma DSD 2 (C1 Level), the TOEFL equivalent that would waive a language requirement at universities in German-speaking countries (in March/April).

## Latin

*The Latin program, consisting of a 4-5 year sequence, offers students the opportunity to explore the cultures, beliefs, and history of the ancient Romans through learning their language and reading their literature. Students will examine both Latin's enormous influence on the English language and the classical world's pervasive influence on many modern cultural institutions. Our classes reinforce students' knowledge of English and provide them with strong linguistic foundations for studying other languages in the future. In all classes students learn Latin grammar and vocabulary while reading and translating passages from textbooks and authentic sources. Our highest level is a hybrid pair of courses (Latin IV Honors / Latin V Honors) that will prepare students to take the Advanced Placement Latin exam administered by the College Board (see the Advanced Placement section of this handbook).*

### Latin I

### Latin I Honors

### Latin II

### Latin II Honors

### Latin III

### Latin III Honors

### Latin IV / Roman Literature In Translation

### Latin IV Honors / Latin V Honors (L)

### Latin IV Honors / Latin V Honors (V)

## Latin I and Latin I Honors

*Grades 9-12*

*CR: 1*

*Prerequisite: None*

Students begin their study of the Romans' language by reading stories in Latin about daily life in ancient Pompeii, Roman Britain, and Greco-Roman Egypt. They learn elementary Latin grammar and vocabulary, English derivatives, and general language skills with the aid of both our textbooks, Cambridge Latin Course Units 1 and 2, and supplemental, unadapted passages from Roman authors. Students also encounter the Romans' language and culture, especially classical mythology, through recitations, paintings, sculptures, classical music, and videos. First-year students opting for honors credit will complete additional assignments and projects as prescribed by the teacher. Latin I Honors students and qualified Latin I students will take the National Latin Exam in March.

## Latin II

*Grades 9-12*

*CR: 1*

*Prerequisite: Latin I with a grade of C or better*

Students continue their study of the Romans' language by reading stories in Latin about the politics lurking behind Rome's military presence in Britain in the 80s CE. With the aid of our textbook, Cambridge Latin Course Unit 3, and supplemental, unadapted passages from Roman authors, they cement their knowledge of noun declensions, verb conjugations, and adjective agreement while meeting such new elements of grammar as ablatives, participles, and the subjunctive mood. Students also examine aspects of Roman government, military life, art and architecture, the calendar, and religious beliefs through recitations, inscriptions and graffiti, artwork and classical music, and videos. Qualified Latin II students will take the National Latin Exam in March.

## Latin II Honors

*Grades 9-12*

*CR: 1*

*Prerequisite: Latin I with a grade of A or better; Latin I Honors with a grade of B or better.*

Students continue their study of the Romans' language at a more accelerated pace by reading stories in Latin about the politics suffusing Rome's occupations of Britain and Judea. With the aid of our textbook, Cambridge Latin Course Unit 3, and supplemental, unadapted passages from Roman authors, they cement their knowledge of noun declensions, verb conjugations, and adjective agreement while meeting such new elements of grammar as ablatives, all participles, the passive voice, and the subjunctive mood and its many uses. Students also examine aspects of Roman government, military life, art and architecture, the calendar, and religious beliefs through recitations, inscriptions and graffiti, artwork and classical music, and videos. Latin II Honors students take the National Latin Exam in March.

## Latin III

*Grades 9-12*

*CR: 1*

*Prerequisite: Latin II with a grade of C or better*

Students continue their study of Latin by reading passages that revolve around the complicated (and often deadly) politics of Rome, the imperial capital. Students review all basic Latin grammar thoroughly before going on to participles, certain infinitive uses, conditional sentences, and the independent subjunctive as needed in the reading. The textbook is Cambridge Latin Course Unit 3, supplemented by unadapted passages from Roman authors. In addition to studying the language, students learn about Roman religion, philosophy, building techniques, and the Romans' relations with the Jews and Christians through recitations, inscriptions and graffiti, artwork and classical music, and videos. Qualified Latin II students will take the National Latin Exam in March.

**Latin III Honors***Grades 9-12**CR: 1*

*Prerequisite: Latin II Honors with a grade of B or better; for exceptionally qualified students, Latin I Honors upon recommendation of the instructor and with the expectation of additional independent preparation*

Students preparing to read Latin literature at the advanced level spend their third year navigating through the turbulent waters of ancient Roman politics and intrigue in readings that incorporate a thorough review of all previous grammar and vocabulary. With the aid of our textbook, Cambridge Latin Course Unit 4, supplemented by an increasing number of unadapted passages from Roman authors, students complete their study of Latin grammar, concentrating on such complex forms and constructions as indirect statement, conditional sentences, gerunds and gerundives, and independent subjunctives. Students also begin to examine style variations used in Roman literature as well as poetic meter and literary devices. For those intending to take the Advanced Latin class the following year, this course provides a preview of the authors and themes within the Advanced Placement syllabi.

Latin III Honors students take the National Latin Exam in March.

The Latin IV/V Honors (L) syllabus may include selections from Catullus's *Carmina*, Cicero's *Pro Caelio*, Horace's *Odes* and *Epodes*, Ovid's *Metamorphoses*, and other texts; the Latin IV Honors / V Honors (V) syllabus will include selections from Vergil's *Aeneid*. For more information, see the Advanced Placement section of this handbook. These advanced students will take the National Latin Exam in March.

**Latin IV / Roman Literature in Translation***Grades 9-12**CR: 1*

*Prerequisite: Latin III with a grade of C or better*

Latin IV students conclude their study of Latin grammar and delve into a year-long exploration of Roman history and culture through its various literary forms. Specifically, this course traces the development of Latin literature by genres and major Roman authors. Students will read selections of epic and lyric poetry, comedy and tragedy, satire, historical writings, political orations and treatises, war commentaries, inscriptions, and personal letters. The course's hybrid syllabus includes our textbooks, Cambridge Latin Course Units 3 and 4, supplemented by passages from a variety of Roman authors in Latin and English. Students are expected to prepare readings, contribute to class discussions, participate in debates, compose written responses, and complete one research project per semester. Class activities will also involve recitations, inscriptions and graffiti, artwork and classical music, and videos. Qualified Latin IV students will take the National Latin Exam in March.

**Latin IV Honors / Latin V Honors***Grades 9-12**CR: 1*

*Prerequisite: Latin III Honors with a grade of B or better*

Two parallel courses (A and B) occupy our highest level of language study in Latin. Students at this advanced level review all Latin grammar, reading passages from the College Board's prescribed syllabus to prepare interested students for the Advanced Placement Latin Vergil exam. In alternating years, students will read the works of either (a) various Latin authors including Catullus combined with Ovid, Horace, or Cicero or (b) Vergil. Students will practice literary analysis of Latin literature, including scansion of poetry, rhetorical devices, and oral recitation. They will practice writing essays (in English), which analyze the Latin passages they have read.

## Spanish

*Spanish courses are offered in a complete range from beginning courses (Spanish I) to accelerated ones (Spanish II Honors, III Honors, IV Honors, and V Honors). Both regular and honors courses are available to the student at all levels after Spanish I.*

**Spanish I**  
**Spanish II**  
**Spanish II Honors**  
**Spanish III**  
**Spanish III Honors**  
**Spanish IV**  
**Spanish IV Honors**  
**Spanish V**  
**Spanish V Honors**

### Spanish I

*Grades 9-12*

*CR: 1*

*Prerequisite: None*

Students in the introductory course should expect to acquire the basic skills of communication: listening, speaking, reading, and writing. They will develop these skills by studying such things as greetings and introductions, likes and dislikes and other appropriate themes. Students should also expect to gain an appreciation for cultural differences between the U.S.A. and Spanish-speaking countries.

### Spanish II

*Grades 9-12*

*CR: 1*

*Prerequisite: Spanish I with a grade of C or better*

This course advances and expands the primary language skills of listening, speaking, reading, and writing. Students become more proficient in their oral communications through partnered oral activities and dramatic skits. The course introduces many new grammatical concepts, especially different verb conjugations. Students read short stories and native legends to increase comprehension. Emphasis is placed on learning about the history, art and customs of Mexico as the students expand their vocabulary and understanding.

### Spanish II Honors

*Grades 9-12*

*Credit: 1*

*Prerequisite: Spanish I with a grade of B+ and approval of teacher*

This accelerated course is a challenging in-depth study of the Spanish language through practical application. Emphasis is placed on the students' growing ability to communicate orally and to begin to express themselves with increasing sophistication in short pieces of writing. The students will continue their study of Spanish grammar, adding many new verb tenses and constructions, and will use their skills to interpret short texts dealing with the culture and history of Mexico and other Latin American countries.

### Spanish III

*Grades 9-12*

*CR: 1*

*Prerequisites: Spanish II with a grade of C or better or recommendation of teacher*

Spanish III continues the practice of communicating in Spanish by listening, speaking, reading and writing. Students review and expand their knowledge of grammar, literature, history, art and culture with an emphasis on Spain. Students improve their communication skills by both reading more challenging pieces and writing longer compositions.

### Spanish III Honors

*Grades 9-12*

*CR: 1*

*Prerequisite: Spanish II Honors with a grade of B or better or recommendation of teacher*

This is an accelerated Spanish course for highly motivated students. The students will further develop their skills through continued and intensified study of authentic sources. The students will practice oral and written communication using more complex constructions and vocabulary after an in-depth review of grammar. Fluency, both oral and written, will be greatly improved through the study and discussion of the culture, art and literature of Spain.

### Spanish IV

*Grades 9-12*

*CR: 1*

*Prerequisite: Spanish III with a grade of B- or better and recommendation of the teacher*

Students will continue to improve their communication skills by addressing broader topics of cultural significance in Latin America. Students will also study the Hispanic presence in the U.S. as well as political and social issues relating to many Latin American countries. In the study of grammar, emphasis is placed on correct usage and increasing fluency. The course also includes the reading of short stories, poems, and plays by Hispanic writers.

### Spanish IV Honors

*Grades 9-12*

*CR: 1*

*Prerequisite: Spanish III Honors with a grade of B+ or better and recommendation of the teacher*

A very challenging and exciting course for the interested Spanish student. Spanish IV Honors also studies the Spanish-speaking world, with special emphasis on Central and South America, and the history of immigration to the U.S. The course imposes additional expectations with regard to the quality, length and sophistication of written and oral expression. Students will hone their aural comprehension skills in Spanish by listening to podcasts, videos, songs and guest speakers.

**Spanish V***Grade 10-12**CR: 1**Prerequisite: Spanish IV with a grade of B or better and recommendation of the teacher*

Spanish V refines the use of the Spanish language in all four skills. Students often work independently or in small groups planning presentations and large projects. The variety of activities encourages the students to explore their own interests as a way of strengthening their command of the language and their understanding of the Spanish-speaking world.

**Spanish V Honors***Grade 10-12**CR: 1**Prerequisite: Spanish IV Honors with a grade of B or better and recommendation of the teacher*

This class parallels the curriculum of Spanish V but has higher expectations regarding the command of grammatical detail and the sophistication of both oral and written expression.

Participating students will develop skills adequate to take the SAT II Subject Test and/or College Board Advanced Placement Exam in the Spanish language.

**Health**

*All sophomore students attending Hanover High School are expected to take the Hanover High School Health course.*

**Health Education***CR: 1/2**Grade: 10*

All students are required to successfully complete Health Education. The course, one semester in length, provides information about pertinent ideas, issues and concepts related to achieving and maintaining good health. Students will practice and develop skills essential to the development of health literacy – communicating, advocating, reasoning and investigating. Topics focus on the dimensions of personal health and wellness – substance use/abuse, human sexuality, media literacy, diversity, stress management, depression, suicide, values clarification, diseases/disorders, moral development, and nutrition.

**Leadership***CR: 1/2**Grade: 11<sup>th</sup> - 12<sup>th</sup>*

This is a service-oriented course with emphasis on character building and leadership training. The course is for students who are serious about being positive role models for peers, younger students and the community. The course will provide students with an understanding of the fundamental knowledge and skills required of effective leaders. Experiential learning exercises, interactions with others, selective readings, and written assignments are combined to illustrate leadership strategies. Issues of diversity, ethics, personal growth and interpersonal relationships will be explored within the context of leadership development. Students should be motivated to learn, and able to work both independently and cooperatively.

## Academic Resource Center

*The Academic Resource Center (ARC) offers an environment where students may read, study, or do homework. The ARC teacher recommends books and helps students organize and proofread their essays, research papers, and other written work. In addition to an extensive collection of paperbacks, the ARC has computers available for student use. The ARC offers two courses.*

### Independent Reading And Writing Elective

CR: 1/2

Grades: 9-12

Students are offered a rare opportunity to read books of their own choosing. The expectation is that students will read 4-6 hours per week, complete at least 3 books per quarter, keep a journal, and write literary analysis papers in accordance to the individualized contract developed by the student and teacher. Weekly conferences are required. Students are graded on attendance and punctuality, meeting contract goals, journals, papers and projects.

### Supervised Study/Study Skills

CR: ¼ per semester

Grades: 9-10

#### 4 – 5 Hours of Language Arts Lab Time

Supervised Study/Study Skills is designed for students who want a structured study environment during the school day. They will spend time in class working on homework, research projects, and test review. Students will also participate in weekly conferences with the teacher as well as study skills reinforcement and instruction. Some of the skill areas that will be covered are note-taking, textbook comprehension, test-taking/preparation skills, organization and time-management strategies, and memory techniques.

### Supervised Study

CR: ¼ per semester

Grades: 11-12

Supervised Study is designed for 11<sup>th</sup> and 12<sup>th</sup> grade students who want a structured study environment during the school day. The purpose is to help students complete homework, prepare for tests and implement time management and organizational strategies. These strategies may include checking in with classroom teachers, collaborating with classmates, accessing school resources, binder/backpack maintenance and other related strategies. Students are graded on punctuality and performance and receive a quarter credit per semester.

## Living Arts and Sciences

*Living Arts and Sciences (Consumer and Homemaking Education) is the study of social, scientific, technological, and economic principles as they relate to personal, home and family life. It emphasizes the development of all individuals into competent consumers and productive, well-adjusted members of families and society.*

*These courses will not be taught within the regular high school program. The Guidance Department will utilize Independent Study options for students who are interested in this program. Interested students can pursue courses in the following areas of study.*

- Food and Nutrition
- Human, Growth, Child Care, and Guidance
- Clothing and Textiles
- Parenthood Education
- Family Living
- Housing and Living Environments

## Mathematics

The courses at the high school are designed to offer a broad range of experiences to the student body from Math Essentials to Mathematical Modeling:

**Math Essentials**  
**Pre-Algebra**  
**Practical Algebra I**  
**Algebra I**  
**Practical Geometry**  
**Geometry**  
**Geometry Honors**  
**Practical Algebra 2**  
**Algebra 2**  
**Algebra 2 Honors**  
**Selected Topics in Mathematics\***  
**Personal Finance\***  
**Advanced Mathematics**  
**Advanced Math Honors**  
**Probability and Statistics\***  
**Introduction to Calculus\***  
**Calculus**  
**Mathematical Modeling\***  
**Probability and Statistics Honors\***

\* 1 semester courses

Movement between the levels is possible according to student performance and desire. Prerequisites are defined for most courses indicating past performance levels which should lead to success in the next course in the sequence. Each full year course is divided into two semester courses (the A course is first semester and the B course is second semester). Each semester course earns 1/2 credit toward graduation. Students are advised by their current math teacher (or by the department coordinator for students not currently enrolled in math) regarding the next appropriate course in the sequence. The current math teacher, or the coordinator, must approve the student's registration selection. Students electing to take an honors level class are expected to complete the semester in that class. A math placement exam will be administered to students entering grade 9 to assist in determining initial placement. An additional placement test may be administered to Geometry students to determine their readiness for Algebra 2.

Students who wish to consider the Advanced Placement option for Calculus AB, Calculus BC, or Statistics please refer to the Advanced Placement Opportunities section in this handbook.

### Math Essentials A (1<sup>st</sup> Semester)

### Math Essentials B (2<sup>nd</sup> Semester)

Grades: 9-11

CR: 1/2 per semester

Prerequisite: Teacher Recommendation

This course is designed to provide a broad spectrum of math applications for the student. Emphasis is on life skills experiences. Projects and simulations provide much of the activity for this class. Topics to be covered in this course include, but are not limited to, the following:

1. Money
2. Banking
3. Fractions
4. Measurement
5. Percents
6. Decimals
7. Graph & Statistics
8. Transportation
9. Proportions and Comparison Shopping
10. Taxes

Expectations: Much of the student's work will be completed during class time. Personal calculators and the computer are used to assist with the calculations when appropriate. Work not completed during class time will become homework. Work ethic, quizzes, tests, projects, and exercises will form the basis of the students' grade.

### Prealgebra A (1<sup>st</sup> Semester)

### Prealgebra B (2<sup>nd</sup> Semester)

Grades: 9-11

CR: 1/2 per semester

Prerequisite: Teacher recommendation.

This course is intended as a basic introduction to the concepts of algebra. It gives the student who has a difficult time with mathematics an opportunity to learn basic algebraic concepts prior to beginning a full year study of Algebra I. Topics to be covered during this course include the following:

1. Patterns
2. Decimals
3. Percents
4. Rational numbers
5. Working with integers and inequalities.
6. Algebraic expressions and their manipulation
7. General solution techniques for linear equations
8. Graphing on a number line and on a coordinate system
9. Graphing linear functions

Expectations: Students will have daily homework of fifteen to thirty minutes. Homework, work ethic, quizzes, tests, and projects will form the basis of the student's grade.

### Practical Algebra 1A (1st semester)

### Practical Algebra 1B (2nd semester)

Grades 10-12

CR: 1/2 per semester

Prerequisite: C in PreAlgebra, and department recommendation. This course is restricted to 10-12 graders.

This course is intended as one option to the first course in the traditional Algebra 1-Geometry- Algebra 2 high school sequence. The approach used is more informal than that used



in Algebra 1A/B and depends more on problem solving than on theorizing. The topics covered in this course include all of those listed in Algebra 1A and B. Successful completion of this course will satisfy the State of NH graduation requirement for Algebra 1.

Expectations: Students are expected to keep a binder with class notes and homework. Daily homework of twenty to forty minutes will be assigned. Occasional projects that utilize the material presented will be assigned. Homework, class work, quizzes, tests and projects will form the basis of the student's grade.

### **Algebra IA (1st semester)**

### **Algebra IB (2nd semester)**

*Grades: 9-12*

*CR: 1/2 per semester*

*Prerequisite: Department recommendation*

This course is intended as the first course in the traditional Algebra 1 - Geometry - Algebra 2 high school sequence. Many colleges specify this three-year sequence as an entrance requirement for admission. Successful completion of this course will satisfy the State of NH graduation requirement for Algebra 1. The topics covered in this course include the following:

1. Algebraic expressions and order of operations
2. General solution and graphing techniques for linear equations and inequalities
3. Rates, ratios and proportions
4. Graphing linear functions in standard, point-slope and slope-intercept form
5. Systems of linear equations and inequalities
6. Laws of exponents
7. Add, subtract, multiply, and divide polynomials
8. Roots and Radicals
9. Solving quadratic equations by factoring, completing the square, and quadratic formula
10. Graphing quadratic functions, parabolas

Expectations: Students are expected to keep a binder with class notes and homework. Daily homework of twenty to forty minutes will be assigned. Homework, class work, quizzes, tests, and projects will form the basis of the student's grade.

### **Practical Geometry A (1st semester)**

### **Practical Geometry B (2nd semester)**

*Grades 10-12*

*CR: 1/2 per semester*

*Prerequisite: C in Algebra I or Practical Algebra I, and department recommendation*

This course is intended as one option to the second course in the traditional Algebra 1-Geometry- Algebra 2 high school sequence. This course investigates the properties of geometric figures. All the problem solving techniques normally found in a regular college preparatory geometry course are included here with the exception of the formal geometric proof. The approach used is more informal than that used in Geometry A/B and depends more on problem solving than on theorizing. The topics to be covered in this course include all of those listed in Geometry A and B. The solving of proportions, graphing, and linear equations are the only algebraic skills necessary to the course.

Expectations: Daily homework of twenty to forty minutes will be assigned. Occasional projects that utilize the material presented will be assigned. Homework, class work, quizzes, tests and projects will form the basis of the student's grade.

### **Geometry A (1st semester)**

### **Geometry B (2nd semester)**

*Grades 9-12*

*CR: 1/2 per semester*

*Prerequisite: C in Algebra I and department recommendation*

This course is intended as the second course in the traditional Algebra 1-Geometry- Algebra 2 high school sequence. Many colleges specify this three-year sequence as an entrance requirement for admission. Group work in a cooperative learning environment will be used as an integral part of the learning experience. The topics to be covered in this course include the following:

- Basic structural idea of a system of mathematics
- An introduction to inductive reasoning
- Angles and lines in the plane and in space
- Definitions and properties of polygons
- Perpendiculars and parallels in the plane and in space
- Geometric constructions
- Geometric inequalities
- Geometric proportions and similarity
- Plane coordinate geometry
- Circles and spheres - arcs, secants, and tangents
- Areas of polygons and circles
- Surface areas and volumes of solids
- Methods of proof in a deductive system of mathematics
- Pythagorean Theorem
- Right triangle trigonometry

Expectations: Daily homework of thirty to forty-five minutes will be assigned. Students are expected to keep a binder with class notes and homework. Binders, projects, quizzes, tests, and participation in the cooperative learning experience will form the basis of the student's grade.

### **Geometry Honors A (1st semester)**

### **Geometry Honors B (2nd semester)**

*Grade: 9-10*

*CR: 1/2 per semester*

*Prerequisite: Department recommendation*

This course is intended as one option of the second course in the traditional Algebra 1 - Geometry - Algebra 2 high school sequence. The topics covered in this course include all of those listed in Geometry A,B. The difference between the regular course and the honors alternative is reflected in the pace, degree of rigor and number of topics studied. The treatment given to all topics is more theoretical and the exercises are more challenging. Students are expected to synthesize and apply the material beyond examples discussed in class. Quizzes and tests require an extension of the knowledge gained in homework.

Expectations: Daily homework of thirty minutes to one hour will be assigned. Evaluation will be based on class work, homework, participation in class discussions, quiz grades, test grades and projects. A grade of C+ or better in the A semester of the course is necessary to continue with the B semester.

**Practical Algebra 2A (1st semester)****Practical Algebra 2B (2nd semester)***Grades: 11-12**CR: 1/2 per semester*

*Prerequisite: C in both Algebra I and Geometry or Practical Geometry and department recommendation. This course is restricted to juniors and seniors.*

Although following a traditional Algebra 2 curriculum, this course covers fewer topics than Algebra 2, spending more time on skills, applications, and projects. The next course in the sequence would be STIM.

Expectations: Daily homework of approximately thirty minutes will be assigned. Homework, class work, quizzes, tests, and projects will form the basis of the student's grade.

**Algebra 2A (1st semester)****Algebra 2B (2nd semester)***Grades: 10-12**CR: 1/2 per semester*

*Prerequisite: B in both Algebra I and Geometry and department recommendation*

This course is intended as one option to the third course in the traditional Algebra 1-Geometry- Algebra 2 high school sequence. Many colleges specify this three-year sequence as an entrance requirement for admission. This course will make use of graphing calculators. The topics to be covered in this course include the following:

1. Extension of the properties of the real number system
2. Techniques of manipulation with polynomial expressions
3. Linear relations and inequalities
4. Matrices and determinants
5. Conic sections
6. Systems of quadratic functions in two variables
7. Complex numbers
8. Logarithmic and exponential functions
9. Trigonometric functions, formulas, graphs and identities
10. Arithmetic and geometric series
11. Probability

Expectations: Daily homework of thirty to forty-five minutes will be assigned. Homework, class work, quizzes, tests, and projects will form the basis of the student's grade.

**Algebra 2 Honors A (1st semester)****Algebra 2 Honors B (2nd semester)***Grade: 9-10**CR: 1/2 per semester*

*Prerequisite: B in Geometry Honors and department recommendation*

This course is intended as one option to the third course in the traditional Algebra 1 - Geometry - Algebra 2 high school sequence. The topics covered in this course include all of those listed in Algebra 2A & 2B. The difference between the regular course and the honors alternative is reflected in the pace, degree of rigor and number of topics studied. The treatment given to all topics is more theoretical and the exercises are more challenging. Students are expected to synthesize and apply the material beyond examples discussed in class. Quizzes and tests require an extension of the knowledge gained in homework. This course will make use of graphing calculators. The topics covered in this course include the following:

1. Linear Functions
2. Solving Systems of Equations and Inequalities
3. Translations of Functions

4. Matrices

5. Quadratic Functions

6. Exponential, Logarithmic, and Logistic Functions

7. Polynomial Functions

8. Rational and Radical Functions

9. Trigonometry

Expectations: Daily homework of thirty minutes to one hour will be assigned. Evaluation will be based on class work, homework, participation in class discussions, quiz grades, test grades and projects. A grade of C+ or better in the A semester of the course is necessary to continue with the B semester.

**Selected Topics In Mathematics – (STIM) (1st semester)***Grades: 12**CR: 1/2*

*Prerequisite: Geometry or Practical Geometry and Algebra 2 or Practical Algebra 2 and department recommendation. Students who have successfully completed Advanced Math should NOT sign up for STIM.*

Selection of topics will be determined by students' interests and needs. One objective of the course is to prepare for the November and December SAT exams. The balance of the course will cover selected topics in mathematics.

Depending upon the interest of the class, the second part of the course may include such topics as:

1. The mathematical way of thinking
2. Number sequences
3. Functions and their graphs
4. Large and small numbers
5. Regular polygons
6. Mathematical curves
7. Algorithms and programming
8. Introduction to statistics
9. Topics in topology
10. Uses of technology in mathematics

Expectations: Daily homework of fifteen to thirty minutes will be assigned. Homework, class work, quizzes, tests, and projects will form the basis of the student's grade.

**Trigonometry (2nd semester)***Grades: 11-12**CR: 1/2*

*Prerequisite: C in Practical Algebra 2 and department recommendation. Students who have successfully completed Advanced Math should NOT sign up for Trigonometry.*

This course supplements the content of Practical Algebra 2 to include the topic of trigonometry. It includes a full study of trigonometric functions, formulas, graphs and identities. Together with Practical Algebra 2A and B, this course completes a three-semester alternative to Algebra 2A and B. The topics to be covered in this course include the following:

1. Trigonometric Functions
2. Graphing Trigonometric Functions
3. Right Triangle Trigonometry
4. Law of Sines
5. Law of Cosines
6. Trigonometric Identities
7. Inverse Trigonometric Functions
8. Exponential and Logarithmic functions

Expectations: Daily homework of thirty to forty-five minutes will be assigned. Homework, class work, quizzes, tests, and projects will form the basis of the student's grade.

**Personal Finance (2nd semester)***Grade: 12**CR: 1/2**Prerequisite: C in Algebra I*

This course is designed to provide students with knowledge of financial matters that they will need in the future. The course will include topics that students can use immediately such as opening and balancing a checking account, using a credit card, and planning for college or household expenses. Other topics will include the impact of compound interest on investments and loans. Local business people will help with the instruction. Upon successful completion of this course, students will be better prepared to deal with financial matters. The topics to be covered in this course include the following:

1. Banking: checking and savings accounts
2. Developing a budget
3. Loans: personal and business; mortgages
4. Credit Cards
5. College Funding
6. Insurance: health, life, property, car, and dental
7. Investing: stocks, bonds, real estate, mutual funds, IRA's, and TSA's
8. Taxes: federal, state, local, property, income and sales
9. Charity
10. Scams and how to avoid them
11. Starting your own business

Expectations: Portfolios, papers, projects, homework, class work, simulations and tests will form the basis of the student's grade. This course will make use of graphing calculators.

**Advanced Math A (1st semester)****Advanced Math B (2nd semester)***Grades: 11-12**CR: 1/2 per Semester**Prerequisite: C in Algebra 2 and Geometry, and department recommendation*

This course, following a preparation in Algebra 2, continues the exploration in algebra and trigonometry. This course develops the major tools used in statistics and prepares the student for a study of more advanced mathematics. This course will make use of graphing calculators. The topics to be covered include:

1. Polynomial functions
2. Exponential and logarithmic functions
3. Modeling
4. Trigonometric functions
5. Polar coordinates and complex numbers
6. Vectors

Expectations: Daily homework of thirty minutes to one hour will be assigned. Evaluation will be based on homework, class work, quizzes, tests, and projects.

**Advanced Math Honors A (1st semester)****Advanced Math Honors B (2nd semester)***Grade: 9-10**CR: 1/2 per semester**Prerequisite: B in Algebra II Honors and department recommendation*

The difference between the regular course and the honors alternative is reflected in the pace, degree of rigor and number of topics studied. The treatment given to all topics is more theoretical and the exercises are more challenging. This course

will make use of graphing calculators. The topics to be covered include:

1. Polynomial functions
2. Exponential and logarithmic functions
3. Conic sections
4. Trigonometric functions
5. Polar coordinates and complex numbers
6. Vectors
7. Sequences and series
8. Probability and statistics

Students are expected to synthesize and apply the material beyond examples discussed in class. Quizzes and tests require an extension of the knowledge gained in homework.

Expectations: Daily homework of thirty minutes to one hour will be assigned. Evaluation will be based on class work, homework, participation in class discussions, quiz grades, test grades and projects. A grade of C+ or better in the A semester of the course is necessary to continue with the B semester.

**Probability And Statistics (1st semester)***Grades: 11-12**CR: 1/2**Prerequisite: Department recommendation and a C in Advanced Math. (Algebra 2 for seniors)*

In this course students explore:

1. probability
2. the normal distribution
3. confidence intervals and hypothesis testing
4. the t-distribution
5. the chi-square distribution
6. correlation and regression

Expectations: Daily homework of thirty to forty-five minutes will be assigned. This course will make extensive use of graphing calculators. A major project collecting, organizing and analyzing data will be undertaken during the second quarter. Evaluation will be based on homework, class participation, papers, test grades, and final-project grades. In addition, statistical projects may be undertaken by the class for community service.

**Introduction To Calculus (2nd semester)***Grades: 11-12**CR: 1/2**Prerequisite: B in Advanced Math and department recommendation*

This course is designed to introduce students to some fundamental calculus procedures and to prepare them for a rigorous college level course in calculus. The topics to be covered in this course include the following:

1. Continuity and limits
2. Differentiation techniques
3. Exponential and logarithmic functions
4. The definite and indefinite integral
5. Area under a curve

Expectations: Daily homework of thirty minutes to one hour will be assigned. Homework, participation in class discussions, quizzes, tests, and projects will form the basis of the student's grade.

**Calculus A (1st semester)****Calculus B (2nd semester)***Grades: 11-12**CR: 1/2 per semester**Prerequisite: B in Advanced Math Honors and department recommendation*

This course is treated with the rigor that characterizes such a course at the college level. Students learn to solve problems algebraically, numerically, and graphically. By May students are prepared to take the Calculus BC AP Exam. This course will make use of graphing calculators. Students are expected to synthesize and apply the material beyond examples discussed in class. After a quick review of polynomials, trigonometry, conic sections, and logarithms, students study the following topics:

1. Theory of limits and continuity
2. Derivatives of functions
3. Chain rule for differentiation
4. Logarithmic differentiation
5. Derivatives of implicit and inverse functions
6. Simple differential equations
7. Relationship of distance, velocity, and acceleration
8. Related rates of change and applications
9. Integration
10. Techniques of integration
11. Volumes of solids of revolution
12. Taylor and MacLaurin series

Expectations: Daily homework of approximately one hour will be assigned. Evaluation will be based on homework, class work, papers, tests, and projects.

**Mathematical Modeling***Grades: 11-12 (1<sup>st</sup> Semester)**CR: 1/2**Prerequisite: Calculus and department recommendation*

This course is a seminar-style, project-based course. Students explore:

1. introduction to modeling
2. discrete dynamical systems
3. stochasticity in modeling
4. motion
5. systems behaviors: modeling the intangible
6. other topics as time and interest permit

There will be an emphasis on technology-based modeling tools, including graphing calculators, Excel, Geometer's Sketchpad, and STELLA. Students are expected to synthesize and apply the material beyond examples discussed in class.

Expectations: Weekly homework integrating classroom topics will be assigned. Evaluation will be based on homework, class work, and projects.

**Probability And Statistics Honors***Grades: 11-12 (2<sup>nd</sup> Semester)**CR: 1/2**Prerequisite: Calculus and department recommendation*

In this course students explore:

1. the binomial distribution
2. the normal distribution
3. confidence intervals and hypothesis testing
4. the t-distribution
5. the chi-square distribution
6. correlation and regression
7. ANOVA
8. control charts

Students will learn how to calculate confidence intervals and employ hypothesis testing. In addition, students will read Innumeracy and selections from Journey through Genius to give context to their mathematics education. Connections between statistics and calculus will be developed. This course will make extensive use of graphing calculators. Students are expected to synthesize and apply the material beyond examples discussed in class.

Expectations: Daily homework of thirty minutes to one hour will be assigned. Evaluation will be based on homework, class work, papers, test grades and projects.

Students will study all of the topics necessary to prepare them for the AP Statistics test (not required).

**Math Courses At Dartmouth**

**Students must take Mathematical Modeling and Probability and Statistics Honors before enrolling in a Dartmouth Class.**

**Mathematics Independent Study**

The Mathematics Department offers independent study opportunities to students who show genuine interest in mathematics and who have demonstrated excellence in previous math courses. An independent-study structure is intended for students who wish to study mathematics above and beyond what they can study in the standard curriculum. Students may create a course based on a number of different topics in mathematics. In the past, students have successfully completed independent studies in Probability and Statistics, Number Theory, Computer Programming, Student Teaching, Projective Geometry and Fractals. The Math Department will accept independent-study proposals from students who are approaching their last semester at Hanover High School. Students who feel they could effectively complete a course independently and wish to explore mathematics in more depth are welcome to apply.

## Music

### Concert Band

*Grades: 9-12*

*Credit: 1- Full Year*

*Prerequisite: None*

The concert band is organized as an advanced musical experience for all interested students who have gained a degree of musical and technical facility with any instrument usually associated with the concert band. The band plays a wide range of literature with a gradation of difficulty from medium to medium-advanced. Band members perform in three concerts per year, and are encouraged to audition for statewide and regional music festivals and participate in Muster Day ceremonies. Members of the jazz band and wind ensemble are required to participate in the concert band. Students must be registered for concert band in order to audition for All-state and New Englands.

### Chorus

*Grades: 9-12*

*Credit: 1- Full Year*

*Prerequisite: Basic skills equivalent to Essentials of Vocal Music*

The chorus offers students the opportunity to explore vocal music through participation in a large ensemble. It is open to students who demonstrate a sufficient degree of vocal/musical facility and ensemble awareness to perform a wide variety of literature and musical styles ranging in difficulty from medium to medium-advanced. While the focus is on choral performance, skills in music reading, listening and interpretation will also be addressed. There are three major concerts a year as well as a performance at DHMC. Students also are encouraged to develop skills in associated areas such as musical theater, All-state festivals and small ensemble or solo work. Chorus is required for membership in Footnotes. Students must be registered for Chorus/credit in order to perform in concerts and to audition for All-state.

### Footnotes

*Grades: 10-12*

*Credit: 1/4 - Full Year*

*Prerequisite: Audition*

Footnotes is an advanced-level chamber vocal ensemble chosen yearly by audition. Members must also be in Chorus. The group sometimes performs with choreography. Footnotes performs in the three annual chorus concerts as well as for some special events and tours. Because of the challenging level of the music, singers may be expected to attend extra rehearsals in addition to the weekly meeting and spend some individual study time on their music.

### Jazz Band

*Grades: 9-12*

*Credit: 1/4 - Full Year*

*Prerequisite: Audition and/or permission of Instructor*

Jazz Band is organized as an advanced musical experience using the standard Big Band instrumentation of 2 alto sax, 2 tenor sax, 1 bari sax, 4 trumpets, 4 trombones and rhythm section of guitar, bass drums and piano. Other instruments may be added or substituted at the Director's discretion.

Enrollment is by permission of the instructor and may require an audition. This group meets at 2 pm on Wednesday and may have additional rehearsals first period. There may be additional rehearsals outside of the school day. All players must be enrolled in concert band.

### Music Independent Study

*Grades: 9-12*

*CR: 1/2 - Semester*

*Prerequisite: Permission of the Instructor. A plan of study/contract must be approved ahead of time.*

The purpose of independent study is to give a student an opportunity to study music in an area which is of interest to the individual student and which is not offered through the regular class format. The student can choose from several options:

1. Essentials of Vocal Music provides students the opportunity to individually develop the basic vocal, musical and ensemble awareness skills needed to participate successfully in a larger ensemble. Areas of study include pitch accuracy, range/tone development, rhythmic accuracy, basic musical notation, following a musical score, dynamic variation and expression, responding to conducting cues, breathing techniques and posture/deportment, and diction.
2. Music Recording Techniques (Studio One) in which a student uses digital and MIDI recording techniques on synthesizers and computers to create, record, and mix down both assigned and student chosen projects.
3. The History of Classical Music This course will provide students with the opportunity to study the history of Western European and American classical music from the middle ages to the present. The goal of the course will be to help students establish an understanding of the major events in the history of the development of classical music and introduce students to the major classical composers (such as Bach, Beethoven, Brahms, and Stravinsky) and their works. This knowledge will be used as a framework to examine the role of music in the heritage of our culture and to create an awareness of the links between music, the other arts, and the general social progression of our society. There will be no prerequisite. The ability to read or perform music is not necessary for the successful completion of this course.
4. The History of Jazz which provides the opportunity for the student to study the history of jazz from 1900 to the present.
5. Student Designed Study which gives the student the chance to explore a topic in music which is not covered in the above options.

Note: An independent study contract must be filled out and signed before the beginning of the semester.

All music independent study options require a weekly meeting with the instructor, a minimum of three hours of independent work each week, a journal or log, and a portfolio which chronicles the student's progress.

**Music Theory***Grades 9-12**CR: 1- Full Year**Prerequisite: None*

Music Theory is an introduction to the fundamentals of music reading, analysis, composition, and interpretation. Some previous musical knowledge is helpful but not required.

Topics for Semester One include pitch/rhythm notation, sight reading/dictation, basic keyboard skills, basic scale/chord theory, and some composition/song writing.

Semester Two will expand on first semester topics to include: modes other than major/minor, more complex chord progressions, part-writing, arranging, transposition, form analysis, advanced pitch/rhythm keyboard skills, and composition.

**Orchestra***Grades 9-12**CR: 1 – Full Year (Orchestra Strings) ¼ - Full Year (Non-strings)**Prerequisite: None*

Orchestra provides a large group experience for string players and selected woodwind, brass and percussion players who have gained a degree of musical and technical facility with their chosen instrument. The music performed is chosen from the standard repertoire and includes works from all periods. The Full Orchestra meets once a week. The String Orchestra rehearses three times a week. The Orchestra performs three major concerts per year. Members are encouraged to participate in chamber ensembles and all-state festivals. Wind players must be enrolled in concert band in order to participate in full orchestra. Students must be registered for orchestra in order to audition for All-state and New Englands.

**Wind Ensemble***Grades: 9-12**Credit: 1/4 - Full Year**Prerequisite: Audition and/or permission of**Instructor*

The wind ensemble primarily employs one player per part and performs mainly classical transcriptions as well as some contemporary band arrangements and ceremonial music. It is expected that the musicians involved will have a serious attitude toward rehearsal and performance. The ensemble performs in at least three concerts with the music department as well as outside events. Members of the wind ensemble are required to participate in concert band.

## Physical Education

*The core physical education program at Hanover is offered during the 9th grade year. There is also a year-long one credit course for PE9 Student Aide for 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade students.*

### Ninth Grade Program

*Grade 9*

*CR: 1*

This course is designed to give students an in depth introduction to Project Adventure, a dynamic program that emphasizes individual and group challenges, personal goal setting, and responsibility for others. Use of group initiatives, trust activities, and individual challenge activities will prepare the student for participating in the high ropes course.

This course will advance students towards use of the indoor and outdoor ropes courses. After participating in the low ropes course activities the students will learn proper belay techniques, the use of different types of harnesses, and the use and care of all appropriate climbing hardware. Students will participate in the setting up and running of the ropes course program with guidance from the instructor. During the winter months students will participate in individual and team sports activities such as badminton, weight training, paddleball/racketball, basketball, and volleyball.

### PE9 Student Aide

*Grades 10, 11, 12*

*CR: 1/4 Per Quarter*

This course is available for selected 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade students who are interested in assisting with the PE9 program. Students interested in taking this course must have approval of the instructor before registering for the course. Students accepted for this course will serve as an assistant instructor and will assist the physical education teacher with all aspects of the class.

### Advanced Physical Education

*Grades 10, 11, 12*

*CR: ½ Semester (You may only take this once for credit)*

This course is offered to students in grades 10-12. Activities will include ropes course/outdoor education activities during the warmer months. During colder months, physical fitness and wellness activities will be the primary course content.

## Science and Technology

*The Department of Science and Technology at Hanover High School offers a variety of courses directed toward students of varying interests and abilities. In addition to skills and knowledge goals, students are presented with opportunities to develop attitudes for productive citizenship through the study of issues and careers in science and technology.*

*Two science credits, one in a physical science and one in a biological science, are required for graduation from a New Hampshire high school. There is also one credit in a Fine or Practical Art that is required for graduation. A Technology course may be used to fulfill part of this required credit. Students should be advised on course selection by a science teacher for science courses and a technology teacher for technology courses.*

*Students who wish to consider the AP option for Physics B please refer to the Advanced Placement opportunities section of this handbook.*

### Earth Science Courses

Geology: Geologic History of the Upper Valley  
Astronomy

### Physical Science Courses

Physical Science  
Methods in Science  
Honors Methods in Science  
Honors Environmental Science  
Chemistry in the Community I  
Chemistry in the Community II  
Chemistry  
Honors Chemistry  
Applied Physics I  
Applied Physics II  
Physics  
Honors Physics  
DARMA  
C.A.P.P.S  
Physics Lab Techs

*These courses fulfill the one (1) credit in a Physical Science required for graduation.*

### Biological Science Courses

General Biology  
Biology  
Honors Biology  
Anatomy & Physiology I  
Anatomy & Physiology II  
Genetics And Evolution  
Bio Lab Tech

*The first three courses in this listing fulfill the one (1) credit in a Biological Science required for graduation.*

### Technology Courses

Consumer Auto and Power Mechanics I  
Consumer Auto and Power Mechanics II  
Tools 101  
Metal Fabrication I  
Metal Fabrication II  
Electricity/Electronics  
Engineering Design I  
Engineering Design II  
Independent Technology  
The Way Things Work

*These courses may fulfill one-half (1/2) to (1) credit in a Practical Art, as required for graduation.*

### Physical Science

CR: 1

*Prerequisite: None*

This course uses an integrated approach to explore physical science through an examination of physical and chemical processes.

It is activity centered and uses individual, group and class laboratory investigations to learn a set of basic concepts. There is an emphasis on the application of the scientific concepts through hands-on activities which allow students to design and build and test projects. The main units are listed in the Methods description.

The skills covered during the course include the use and care of equipment in the industrial technology area and science labs, evaluation of simple equations, recording and organizing data, making and interpreting graphs, note taking, data analysis, identifying and classifying, and observational skills as they apply in the laboratory investigations.

### Methods In Science

CR: 1

*Prerequisite: Enrollment in Algebra I or higher. Students in Algebra I needs permission of science/math teachers*

This course incorporates the use of individual and group laboratory exercises to learn fundamental science skills and concepts. Algebra is used intensely to describe and explain concepts of science.

Objectives: The student will:

1. develop laboratory skills; including lab safety
  2. collect and analyze data, make inferences and generalize specific results to obtain logical conclusions;
  3. increase knowledge of the physical world and the interrelationship of the different areas of science.
  4. integrate the use of math as an investigative tool in science.
- The main units are: Forensic Science, Metrics & Measurement, Heat & Energy, the Chemistry of Electrolysis, and Newtonian Physics. Each unit culminates with a project that integrates many of the skills and concepts taught throughout the unit.
- Expectations: Students will attend four one-hour classes and one X-period per week. Approximately one lab or activity will



be completed each week. Students will need to work during unscheduled time for approximately one hour per week to complete labs and projects. All students are expected to spend approximately three hours per week on homework, studying and class preparation. Students will keep an up-to-date and well-organized notebook of all work. Students are required to have a scientific calculator.

### Honors Methods In Science

*Grade 9*

*CR: 1*

*Prerequisite: Enrollment in Hgeo or higher. Students must score high on the science placement test. By recommendation from 8th grade science teacher.*

Honors Methods presents the material from our Methods in Science course at a faster pace, with deeper exploration of topics, and more detailed assessments. Honors Methods incorporates the use of individual and group laboratory exercises to learn fundamental science skills and concepts that students will use throughout their science coursework at HHS and beyond. Algebra, graphing, & data analysis are used intensely to describe and explain concepts of science. The main units are listed in the Methods description.

### Geology: Geologic History Of The Upper Valley

*Grades 10-12*

*CR: 1/2*

*Prerequisite: A previous high school science course and successful completion of Algebra 1*

Imagine sitting on the Hanover green surrounded by jagged 15000 foot peaks, or buried under a mile of ice, or under 60 feet of water at the bottom of a lake that extends all the way to Connecticut. These are just a few of the stages in the evolution of our local landscape on the geologic time scale. In this course you will explore the forces that have changed and shaped our local landscape and in the process describe the past 500 million years of history in New England. These forces include the plate tectonic motions that built the mountains, causing earthquakes and volcanoes, as well as the glaciers and rivers that have torn down and reshaped those mountains. We will also learn mapping skills including the use of GPS and GIS technology needed to describe and explore this landscape.

### Astronomy

*Grades 10-12*

*CR: 1/2*

*Prerequisite: A previous high school science course and successful completion of Algebra 1, and Geometry*

This course will offer students the opportunity to apply knowledge of the physical sciences to understanding the processes that govern and shape our universe. It will emphasize the development and use of observation skills, problem solving, and logical reasoning to explain the relationships and patterns found in our universe.

We will examine earth's place in our solar system, galaxy and universe. The course will explore the techniques that have allowed earthbound observers to infer so much about the distant reaches of our solar system, galaxy and universe. Topics may include the following: gravitation and planetary motion, the history of astronomical observation, light and matter, optics and tools of observation, stellar evolution, and the search for ETI.

Evaluation will be based on lab reports, quizzes, projects, tests, class participation, independent research and other written work.

### General Biology

*Grades 10-12*

*CR: 1*

*Prerequisite: None*

It is a general survey course in biology designed to expose students to a wide range of biology topics in preparation for life and a range of post secondary options. There is good teacher support and a low teacher to student ratio. Major goals are to develop the appreciation and wonder for complexity of the world of living things and to help students develop the ability to solve problems involving basic biological concepts. Each student will perform lab investigations and discuss with the class the results, as well as related topics. It is, therefore, necessary that the students attend all scheduled classes.

The course also stresses the ordered interrelationships between living things and the non-living environment. A variety of concepts will be covered, which may include Biology Tools and Methods, Cellular Structure and Function, Human Anatomy and Physiology and Comparative Anatomy and Physiology, Chemistry of Life, Genetics, Evolution and Ecology.

Evaluation will be based on lab reports, quizzes, projects, tests, class participation, independent research, and other written work.

### Biology

*Grades: 10-12*

*CR: 1*

*Prerequisite: Methods in Science, Physical Science, or permission of Science Coordinator*

This biology course is designed to provide a strong background for college biology as well as practical preparation for life. A major goal is to develop an appreciation and wonder for the complexity of the world of living things. The course also stresses the ordered interrelationships between living things and the non-living environment. Concepts covered are Biology Tools and Methods, Cellular Structure and Function, Human Anatomy and Physiology and Comparative Anatomy and Physiology, Chemistry of Life, Genetics, Evolution and Ecology.

It is essential that students study assignments outside of class. Evaluation will be based on lab reports, quizzes, tests, independent research, presentations, and other written work.

### Biology Honors

*Grades: 9-12*

*CR: 1*

*Prerequisite: Algebra I. By recommendation only. Ninth graders must score high on the Science and Math Pre-Tests and be concurrently enrolled in Geometry Honors.*

The student should be relatively competent in math, graphing skills, and reading. The course is open to tenth through twelfth graders with at least a tenth-grade reading level who are recommended by their ninth grade science teacher. Highly motivated and high science-achieving ninth graders who are recommended by their eighth grade science teacher are also eligible for this class.

The laboratory is the center of the course. The student is required to make careful observations, form hypotheses, test these hypotheses by making appropriate experiments, or test

hypotheses formulated in the text by previously designed experiments. The student will be expected to carefully collect and interpret data, and finally form and communicate conclusions in lab reports and group discussions. In this manner the student is expected to learn the basic concepts of biology and how they relate, as well as incorporate the scientific method into her/his behavior.

An attempt is made to show the importance of mathematics as a tool towards investigating biological concerns as well as stressing the relationship of the physical sciences to the study of life. Throughout, the major concern is to develop an appreciation and wonder for the complexity of the world of living things, yet stress the ordered interrelationships between living things and the non-living environment. Concepts covered are Science Tools and Methods, Ecology, Cellular Structure and Physiology, Chemistry of Life, Genetics and Evolution, Anatomy of Physiology and Botany.

### **Anatomy & Physiology I**

*Grades:*

*CR: 1*

**Prerequisite:** Biology

This is a survey course focusing on the major systems of the human body. Topics include body organization & tissues, skeletal, muscular systems. This is not an honors level course, but a more in-depth look at the structure and function of the human body than was possible in Biology. Any student interested in pursuing a career as a nurse, EMT, physical education and/or health teacher, physical therapist, or any other health care related field should consider taking this course. Dissection of preserved specimens is not required, but will be encouraged.

### **Anatomy & Physiology II**

*Grades:*

*CR: 1*

**Prerequisite:** Biology

This is a survey course focusing on the major systems of the human body. Topics will include the nervous, endocrine, circulatory, respiratory, digestive, urinary, and reproductive systems. This is not an honors level course, but a more in-depth look at the structure and function of the human body than was possible in Biology. Any student interested in pursuing a career as a nurse, EMT, physical education and/or health teacher, physical therapist, or any other health care related field should consider taking this course. A&P I is recommended, but not required. Dissection of preserved specimens is not required, but will be encouraged.

### **Biology, Lab Technician**

*Grades: 10-12*

*CR: 1*

**Prerequisite:** *Biology or Biology Honors. By arrangement with the instructor.*

The student will assist the teacher in presenting a general biology course and will thereby become involved in the day-to-day activities of maintaining cultures, preparing for labs and assisting students in the lab. Students will become closely acquainted with handling and raising biological materials. Additionally, by preparing for labs for the general biology course, as well as by tutoring students in their biological studies, the lab technician will deepen her/his understanding of biology and the way in which it is taught.

### **Genetics and Evolution**

*Grades 11-12*

*CR: 1*

**Prerequisites:** *Biology or Honors Biology, Chemistry, one year of Algebra, and recommendation of the instructor.*

Three aspects of genetics are covered: 1) Mechanisms of gene transmission, including chromosome mapping and genetic pathways; 2) Mutational analysis of biological processes with an emphasis on mutations that affect chromosome transmission; 3) An introduction to genomics—the cloning and sequence analysis of whole genomes. The emphasis is on both the formal genetic mechanisms and molecular techniques. The development of recombinant DNA technologies has resulted in an explosion of new ideas and laboratory techniques in the realm of molecular biology. This course is very “lab heavy”. Students will develop their lab techniques with the following investigations:

Biochemistry related to the nature of DNA structure and function

Gene expression and regulation

DNA extraction and analysis

Horizontal and vertical gel electrophoresis

DNA amplification (PCR) techniques

Mitochondrial DNA extraction

Genetically Modified Organisms (GMO) investigations

Protein gel electrophoresis and proteomics

Genomics information

The last quarter will investigate the patterns and processes of evolution. The following topics will be covered: natural selection, population genetics, macroevolution and microevolution, human evolution and biodiversity.

Please visit the course website at:

<http://www.hanoverhigh.US/departments/science/rm215/genetics/Home.html>

### **Honors Environmental Science**

*Grades 11-12*

*CR: 1*

**Prerequisites:** *Biology or Honors Biology, Chemistry, Algebra 2, and recommendation of the instructor.*

Environmental Science follows the guidelines written by the College Board for the Advanced Placement (AP) program in Environmental Science and prepares students for the AP exam in Environmental Science. Environmental Science is a rigorous science course that stresses scientific principles and analysis, and is designed to be the equivalent of a one-semester, introductory college course in environmental science. It is intended to enable students to undertake, as first year college students, a more advanced study of topics in environmental science, or alternatively, to fulfill a basic requirement for a laboratory science and thus free time for taking other courses.

This course is an option for students who have successfully completed high school biology and chemistry as well as Algebra II. Student interest in the subject matter is important as well as a strong academic record.

Environmental Science provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. The first semester will include four field investigations beginning with an intensive field study of

the effects of acid mine drainage on a local river ecosystem. This will be followed by a field investigation of plant succession at Mink Brook. Our third investigation will focus on primary productivity in two local ponds and the fourth investigation will focus on how agriculture influences soil properties. The rest of the first semester will cover topics related to evolution and ecosystems, as well as the environmental and social implications of human population growth. The second semester will include material on the human impacts of the hydrologic cycle, modern agriculture, energy resources, solid waste, and atmospheric pollution. Preserving biodiversity is a concept that is woven throughout the course.

### Chemistry In The Community I

*Grades 10-12*

*CR: 1/2*

*Prerequisites: A previous high school science course and successful completion of Algebra I. An interest in environmental topics.*

Chemistry and the Community is a college-prep course designed to enable students to make informed judgments on environmental issues that are of current concern worldwide while providing a basic understanding of chemical principles and practices. The curriculum is based on the Chemistry in the Community textbook. Properties of water, solution chemistry and acid/base chemistry will be heavily emphasized. The focus of the second semester will be atmospheric chemistry including ozone depletion, food chemistry and nuclear chemistry. Laboratory experience will comprise a significant portion of the course. Topics such as bonding, energy, and the periodic table will also be emphasized. Students are expected to work on chemistry each day outside of class. The course is not designed for students who are planning on majoring in science in college.

### Chemistry In The Community II

*Grades 10-12*

*CR: 1/2*

*Prerequisites: A previous high school science course and successful completion of Algebra I. An interest in environmental topics.*

See the description of Chemistry in the Community I. The focus of this semester is petroleum chemistry, nuclear chemistry, and atmospheric chemistry.

### Chemistry

*Grades: 10-12*

*CR: 1*

*Prerequisites:*

- 1.) A previous high school science course and successful completion of Algebra I.*
- 2.) An expectation to work on chemistry each day outside of class.*
- 3.) An interest in science as a possible career choice.*

Chemistry will review the methods of physical science in the laboratory with an emphasis on measurement, scientific notation, uncertainty, and units. Content emphasis will be placed in understanding the states of matter, the mathematics of chemistry and the chemical equation, molecular motion and energy, the periodic table, and the atomic and nuclear structure of matter. The second semester will emphasize chemical bonding and energy and will use solution chemistry, kinetics and equilibrium, acid and bases, and oxidation and reduction to

examine other changes in matter. Applications to environmental issues and everyday life will be included. A student who enjoys using mathematics, who is very interested in science and who feels it may be a major role in his/her career choice should elect this course.

### Honors Chemistry

*Grades: 10-12*

*CR: 1*

*Prerequisites: A "C" or better in a previous high school science course, successful completion of Algebra I and recommendation of the instructor.*

Honors Chemistry is an introductory course that teaches the foundation of modern chemistry, applies them to current scientific issues, and relates them to practical applications, such as air-bags, green chemistry, and nanotechnology. Major topics include: measurements, matter, atomic theory and the Periodic Table, chemical bonding, stoichiometry and chemical reactions, properties of aqueous solutions, states of matter (solids, liquids, and gases), and acid-base chemistry. Additional topics include: chemical equilibrium, thermochemistry, reaction rates, and nuclear chemistry.

The course emphasizes exploratory learning through a variety of labs. Experiments include: (1) The synthesis and decomposition of zinc iodide, (2) precipitation reactions, (3) Identification of an unknown alkali metal, (4) Periodic trends, (5) Thermochemistry: Heat of formation of MgO, (6) Engineering a nanostructure film, (7) Determination of Absolute Zero (gases), (8) Freezing point depression through intermolecular force interactions, (9) Kinetics (determining the order and reaction rate constant for a reaction), (10) An acid-base titration analysis (including the identification of an unknown acid), (11) Electrochemical production of hydrogen gas (fuel cells).

Please visit the course website at:

<http://www.hanoverhigh.us/departments/science/rm215/honorschem/Home.htm>

### Applied Physics I

*Grades: 10-12*

*Prerequisite: A previous high school science course and successful completion of Algebra I*

This course explores physics conceptually. The emphasis is on the application of major principles to understanding everyday experiences in more depth. Concepts will be explored through hands-on activities, projects and experimentation. Problem solving through conceptual analysis will be highlighted: though some basic algebra will be applied, the emphasis will be on visual means of problem solving.

Topics may include: Forces and Motion, Rotational Mechanics, Energy. Culminating unit projects may include projective motion, planetary motion, or centripetal force of a rotating object.

Evaluation will be based on class participation, lab and project work, homework, quizzes, tests and other written work.

### Applied Physics II

*Grades: 10-12*

*CR: 1/2*

*Prerequisite: A previous high school science course and successful completion of Algebra I*

See the course description for Applied Physics I.

Topics may include: Energy and Heat, Wave Properties, Sound and Light, Optics, and Electrical Systems. Culminating unit

projects may include presentations on engines or refrigerators, optical instruments, or the construction of a bridge or catapult. Evaluation will be based on class participation, lab and project work, homework, quizzes, tests and other written work.

### Physics

*Grades: 10-12*

*CR: 1*

*Prerequisite: Algebra II*

This course emphasizes an exploratory and analytical approach to physics. Topics are chosen because of their real world interest and utility to students who may have various career plans. The primary goal of the course is to enhance the student's ability to problem solve in a manner characteristic of mathematically based science, such as physics.

Major topics are motion, forces, energy, sound, light, electricity, and magnetism. During the last quarter of the course the student will be required to independently study a topic in physics of his or her choice.

### Honors Physics

*Grades 10-12*

*CR: 1*

*Prerequisite: Algebra II and Advanced Math*

*Recommendation by the student's previous science teacher is required.*

The primary goal of the course is to enhance the student's ability to problem solve in a manner characteristic of a mathematically based science, such as physics. This course deals with the following topics: motion, forces, energy, rotational mechanics, harmonic motion, sound, light, electricity and magnetism.

Students choosing Honors Physics should have a high interest in science, and ability and interest in integrating math with real world science problems.

This course will provide students with the knowledge and skills required as preparation for standardized physics achievement tests and for success in a college level physics course designed for science majors.

### Physics Lab Techs

*Grade: 12*

*Prerequisite: Honors Physics*

*CR: 1*

*By Invitation Only*

Physics Lab Techs directly participate in the ongoing preparation of both the Physics and Honors Physics courses. Their duties include designing and setting up new and previously run laboratory experiments, and much more. The physics department has a strong interest in experimenting with, and utilizing, new educational technology in physics. In this regard, and under the guidance of the physics teacher, the lab techs are the primary experimenters with new equipment and new computer programs. They are an important component in keeping the physics programs at Hanover High School "State of the Art". Based upon their own knowledge and experiences in their science education, the Physics Lab Techs are expected to enhance our school's teaching of physics by giving ongoing direction to the physics teacher.

### DARMA (Design, Applied Research, Mathematics & Art)

*Grades 11-12*

*CR: .5*

*Prerequisite: Completion of a biological science and a physical science, and Geometry or Geometry Honors. The physical science may be taken concurrently.*

DARMA is a fast-paced semester-long problem-solving course. Each semester brings a new real-life design challenge that you will solve collaboratively with fellow students using a design thinking approach. You will work hard on both sides of your brain. This course creates an environment where you and your team members are the drivers for discovery and innovation.

The DARMA design process starts with research to understand the issues. Prototypes will evolve from paper and scotch tape into real world objects that are repeatedly tested to validate and refine ideas. The final product is presented during a Design Presentation Event.

For the very first DARMA project students will design and build a 21st Century Student Workstation that meets present day student needs.

Join D.A.R.M.A.

Become part of a learning environment that offers you another venue to apply the science, math and design concepts introduced elsewhere in an environment that is driven by problem-solving, discovery, exploratory learning, and active, hands on engagement.

### The CAPPS Course (Chemistry And Physics Projects for Seniors)

*Grade: 12*

*CR: 1*

*Prerequisite: Biology, Chemistry and Physics. If either Physics or Chemistry has not been taken it must be taken concurrently with CAPPS. By instructor recommendation only.*

This is a course for those who wish to go beyond the introduction to the physical sciences that is obtained in the chemistry and physics courses offered at Hanover High School. The course utilizes a project-based learning environment to develop teamwork, structured programming, technical writing and drawing skills, as well as intuition about physical systems.

During the fall semester, students participate in the University of Vermont TASC (Technology and Science Competition) Device Engineering Contest. The challenge is to design, build and test a device to perform a specific task. The competition culminates in December with all schools participating in the UVM competition.

Second semester begins with the use of LEGO Mindstorm robotics kits to bring students into the world of robotics. Students will learn basic physical and electrical engineering topics and will develop proficiency with LMCAD (CAD software) and NXT, a LabView-based programming environment.

Working individually and in teams, students will complete approximately 10 LEGO based assignments of increasing difficulty and scope. The robotics unit begins with the construction of simple machines and advances full throttle to autonomous robot competitions.

The lessons learned from the defined problem-solving phase of the course marked by LEGO assignments will be applied to individual research projects in the fields of chemistry and physics. The entire class group will act as a resource for each individual student's research project. The goal is to expose the student to "real" world collaborative and peer review processes.

No prior engineering or computer programming experience is required – merely an instructor recommendation, a high level of self-motivation and a desire to have fun while learning. Please visit the course website at:  
<http://www.hanoverhigh.us/departments/science/capps/Bunker.html>

## Technology Courses

### Consumer Auto And Power Mechanics I

CR: 1/2

*Prerequisite: None*

Consumer Auto and Power Mechanics I is for those students who wish to learn the theory and operation of internal combustion engines and how to maintain an automobile. Emphasis is placed on learning through work experience, such as "hands on" lab work on cars, trucks, lawnmowers, mopeds, etc.

### Consumer Auto And Power Mechanics II

CR: 1/2

*Prerequisite: Consumer Auto and Power Mechanics I*

Consumer Auto and Power Mechanics II focuses on other power systems to include electrical power and alternate fuel systems. Focus of vehicle systems includes suspension, drive train, brakes, and hydraulic systems and electrical circuits.

### Tools 101

Grade: 9-12

CR: 1/2

*Prerequisite: None*

The goal of this course is to return you to tinkering! You will work with your hands as well as 21st century technology to facilitate your natural creativity, innovation and design. This semester long course will cover 4 areas of industrial technology: woodworking, metal shaping, electronics and rapid prototyping.

**Woodworking:** You will explore woodworking equipment and processes via completion of a quality wood project. Content includes the physical properties of wood, basic hand tools, power tools, design process, abrasives, finishing process and safety.

**Metal shaping** introduces you to the technological processes used in the metalworking industry. Content to be covered will include the steelmaking process, structural design process, material testing, basic hand tools, sheet-metal work, resistance spot welding, and safety. You will demonstrate your acquired metal shaping skills with a final project.

**Rapid Prototyping:** You will learn to use 3-D CAD (Computer Assisted Design) software such as SketchUp or Autodesk 123D. You will then use a 3D printer or a Computer Numeric Control (CNC) machine to bring your designs into the world! As a final project you will design and create a frame for a quadcopter.

**Electronics:** You will learn learn basic electronics, design wiring diagrams, soldering, and breadboards, as well as design and construct circuits. Then, you will use your circuitry knowledge to wire your quadcopter. The end project for both the rapid prototyping and Electronic components will be to fly your quadcopters!!!

Although this course is not a prerequisite for the engineering courses we offer at Hanover High (Engineering Design I and II, DARMA and C.A.P.P.S), it provides a firm foundation in the skills that will be useful for those courses.

### Engineering Design I

Grades: 9-12

CR: 1/2

*Prerequisite: None*

Engineering Design I is an introductory course for students interested in engineering concepts with little or no experience in drafting and design. The course will encourage problem-solving skills through the development and building of several proto-type machines. A combination of using hydraulic power, levers, pulleys, light, vacuum, and pressures will be studied and used to make working models. Throughout the course students will be involved in several spontaneous problem-solving challenges that will involve structural design and mechanical and electrical systems.

### Engineering Design II

Grades 9-12

CR: 1/2 - Semester

*Prerequisite: Engineering Design*

Engineering Design II is an advanced course for those students interested in exploring advanced engineering method and techniques. This course encourages problem-solving skills throughout the development of proto-type projects. Project selection will include conceptual designs and construction of electrical vehicles, robotics, robotic arms and transportation systems. During the construction phase, students will be instructed on the safe and proper use of woodworking and metal fabrication equipment depending on the designer's requirements.

### Electricity/Electronics

Grades: 9-12

CR: 1/2

*Prerequisite: None*

This course will allow the student "hands on" and theory in both alternating current (AC) and direct current (DC). We will be working with low voltage electronics as well as higher voltage electricity. Some time will be spent reading schematics to properly place resistors, capacitors, switches, diodes, etc. There will be some kit experiments and projects from simple lighting to higher sensor robotics.

**Metals Fabrication I***Grades: 9-12**CR: 1/2**Prerequisite: None*

Metal Fabrication I gives the student experience in the operation of machine tools, sheet metals, and welding equipment. Special emphasis will be given to the safe and proper operation of the engine lathe, vertical milling machine and welders. Welding will include basic oxygen acetylene and electric welding. The techniques learned are applied to the fabrication of projects selected by the students.

**Metal Fabrication II***Grades: 9-12**CR: ½**Prerequisite: Metals Fabrication I*

Metal Fabrication II concentrates on the accuracy of the production of machined parts allowing for the mass production of parts. The students will use precision measuring tools to plan, layout and check his/her work. Characteristics of common metals will be studied to enable the student to select the proper material for a particular job.

**The Way Things Work***Grades: 9-12**CR: 1/2**Prerequisite: None*

This course will allow the student to tear down and rebuild toys, appliances, machines and more to learn the theory and operation on how they function. We will also repair and redesign things to make them function better. There will be brainstorming sessions to help them possibly design and invent their own product or device. Organizational and recording skills will be an integral part of the course.

**Independent Technology***Grades: 9-12**CR: 1/2**Prerequisite: Successful completion of one technology course and prior instructor approval.*

Independent Technology is an independent study course designed to give access to further study in any of the core curriculums of Engineering Design, Consumer Auto and Power Mechanics, and Metal Fabrication, Drafting, Electricity/Electronics, or the Way Things Work.

Students may combine aspects of several cores or may study in depth only one of the curriculum areas. Successful completion of one of the basic core courses is a prerequisite for independent study and aspects of this course must be included in the independent study proposal.

The subject can be the student's choice and must be agreed upon, jointly, in conference with the instructor with whom the student will be working. Student and instructor will develop a contract during this conference and this contract will be the student's blueprint throughout the project. In all instances the approval of the instructor is mandatory prior to the initiation of the Independent Technology course.

## Social Studies

*Three courses of study in Social Studies are required for graduation, and most students choose to take a Social Studies elective during their senior year. Throughout the required course sequence, an emphasis is placed upon developing critical thinking and viewing skills as well as additional skills necessary for active participation as informed citizens in a global society.*

*The Social Studies Department values the laboratory of democracy that exists at HHS, and provides an introduction to the democratic school philosophy in the 9<sup>th</sup> grade course, Civitas and Civilization. The course traces the threads of democratic thought from ancient times to the present within a survey of World History. In addition, students are introduced to basic concepts in economics and apply this information to understand historical events from an economic perspective. The ninth grade course also begins the department's multi-year program of strengthening research and writing skills.*

*In tenth grade, all students take United States History. Varied approaches suited to the differing student needs, aptitudes, and post-high school plans are utilized in the two courses that are offered. The U.S. History Survey course is designed to emphasize the development of skills in the context of learning American history, while the other U.S. History course builds on well-established skills while learning the content. A major research project is required of all students in each course. In addition, students examine the impact that economic factors have had on American history.*

*The eleventh grade course is divided into two semesters and emphasizes modern United States History and international affairs. In one semester, Contemporary American History and Modern America focus on political, economic and social developments in our history since World War. In the other semester, Geopolitics and Global Studies focus on modern world history and global economic, political and social issues from the early twentieth century to the present. Half the juniors take one course in the fall and switch at midyear to take the second course. The development and impact of globalization is the key economic factor that is emphasized in the junior year.*

*Finally, there are eleven semester-long courses offered to seniors and juniors. These include Psychology, Sociology, Seminar in European History, Western Religions, Eastern Religions, World Geography, Media and Democracy, Street Law, Economics and Public Policy, Comparative Political Systems and Constitutional Law. Not all electives are offered each year. Juniors may sign up for these electives as well as seniors but juniors must also be enrolled in Modern America or Contemporary American History and Geopolitics or Global Studies. Economics is a curricular strand in both the required and electives courses. Information on the economics curricular strand is available in the SAU K-12 social studies curriculum document.*

*Although the sequence in which students fulfill the Social Studies requirement is fixed, there is some flexibility in meeting those requirements after ninth grade. Tenth and eleventh grade students may defer the course normally taken in those years by one year if they need to adjust their schedule to begin a second language or meet some unusual scheduling problem. Seniors may take two elective courses in the high school if the space is available and/or may apply to take a course at Dartmouth if they meet the following prerequisites: they have taken all Social Studies Department courses related to the requested Dartmouth course, there is space available in the Dartmouth course, and have maintained an A average in their 3 previous years of social studies. A brief description of all courses follows.*

*Students who wish to consider the Advanced Placement option for U.S. History or European History should refer to the Advanced Placement Section of this handbook.*

## FIRST YEAR

### Civitas And Civilization

CR: 1

Grade 9

*Civitas and Civilization* is a world history and government course designed to provide a strong foundation for the study of history and the social sciences at Hanover High School. The course begins with a focus on Civics and the democratic principles and structures that have shaped the history of the world, our country, our states, our towns, and the community of Hanover High. The curriculum then moves to a chronology of classic topics in Western Civilization: the rise and fall of early civilizations, the rise of nation-states, the origins of representative government, and the role of the citizen. Throughout the year, themes of comparative government, economics, and technological development are emphasized. A major emphasis is placed on the development of writing and research skills. Students will be introduced to the STEPS

essay writing method that is the basic foundation of solid essay writing. Research skills in verification of sources, quoting, and citing are taught and practiced throughout the year.

## SECOND YEAR

### United States History Survey

*Grade: 10*

*CR: 1*

*Prerequisite: First Year Requirement*

This introductory course in U. S. History provides students with a general survey of the historical events that happened between 1492 and 1941. The course is designed to help students strengthen their skills in reading, writing, discussion/presentation, and research through the text and diversified activities. In a typical week a student is expected to take notes based on the teacher's presentation. These notes will help the students understand the concepts and the facts. Along with the notes there are a variety of daily activities that may include creating charts, posters, journal writing, group work, discussion and presentation of ideas to re-emphasize the concepts and facts for the students. During the year the students will also take a midterm and final exam and will write a major U.S. History research assignment.

### US History: The American Experience

*Grade: 10*

*CR: 1*

*Prerequisite: First Year Requirement*

The more advanced U. S. History is a challenging year-long study of major people, events, myths, issues and themes in our history from pre-Columbian times to 1941. Because students enrolled in the course are expected to do daily homework assignments in a challenging text, they should have strong reading and writing skills. Activities like debates, mock trials, oral reports and recitations form an important part of class activities. During the year the students will also take a midterm and final exam and will write a major U.S. History research paper.

## THIRD YEAR

*All students must take one semester of Modern America or Contemporary American History, and one semester of Global Studies or Geopolitics. There is no preferred order. Juniors are also eligible to sign up for senior electives but enrollment preference will go to seniors.*

### Modern America

*Grade: 11*

*CR: 1/2 Semester*

*Prerequisites: First and Second Year Requirements*

Modern America focuses on American history since 1941. In addition to an outline of important people and events, the course includes an examination of social, cultural, political, and economic themes in American History since 1941. Journal writing and a major percentage of coursework is completed in the classroom. During the semester students will be asked to take periodic unit tests, write a major essay and undertake a research project. There is a mid-term and final exam.

### Contemporary American History

*Grade: 11*

*CR: 1/2 Semester*

*Prerequisites: First and Second Year Requirements*

Contemporary American History deals with the history of the United States from 1941 to the present. The course follows both a chronological and thematic organization of the events during that period. Some of the themes that are developed are life in the fifties, minorities and civil rights, protest, and American government. Current events are discussed in class on a regular basis. Evaluation takes place through unit tests and final examinations, oral presentations and various reading and research writing assignments.

### Contemporary American History And Culture (CAH/CAC)

*Grade: 11*

*CR: 1/2 Semester*

*Prerequisites: First and Second Year Requirements*

Contemporary American History and Culture is an interdisciplinary course for juniors that combines the required history with an English elective, CAC. This team-taught course focuses on US History, Politics, Literature, Art, and Music from 1941 to present. The curriculum is focused on five main themes: War and Peace, Consumption and Conservation, Equality and Disparity, Individual influence and Mass Culture, Technology and Sustainability. Student assessment is based on frequent writing assignments, oral presentations, research, reading assignments, and a final exam.

### Global Studies

*Grade: 11*

*CR: 1/2 Semester*

*Prerequisites: First and Second Year Requirements*

Global Studies focuses on modern world issues. Units are both geographic and thematic. Topics include population, the environment, politics, economics, modernization, immigration, and human rights. There is a major emphasis on current events. Students are expected to do in-class and outside reading, writing, and preparation for individual projects.

### Geopolitics

*Grade: 11*

*CR: 1/2 Semester*

*Prerequisites: First and Second Year Requirements*

Geopolitics is a rapidly moving course focused on Contemporary World History, post WWII. The course explores issues of global concern: climate change, rising global terrorism, population and sustainability (among others), as well as issues that are specific to particular regions including Africa, Europe, Former Soviet States, China, Latin America and North America.

The course analyzes political and economics issues in historic context, and examines their current impacts. The course curriculum is designed to be responsive to evolving issues in the world today. Readings are from a variety of book and news sources. Regular reading notes, tests, presentations and an individual research project are an important part of the course.



## FOURTH YEAR: Junior – Senior Electives

### Media and Democracy

*CR: ½ semester*

*Prerequisite: None*

Is The Jon Stewart Show fiction? Is FOX News factual? Is Wiki-leaks a “champion of free speech”? Is that picture photo-shopped? Is this Blog for real? Who sent that Tweet? This one-semester course addresses questions about the current media environment, the explosion of information sources, and the development of cutting-edge technologies. Students will become discriminating news consumers at a time when the digital revolution is spawning an unprecedented flood of information and disinformation each day. Reading newspapers, online news sites, blogs, and more, we will learn what is news and what is not-so-newsworthy. Talking with journalists, politicians, and program designers, we will analyze the objectives of media use. The question we seek to answer is: what does it take to be an informed citizen? Evaluation will be based on a variety of assessments including homework, tests, research projects and papers, class presentations and class participation.

### Street Law

*CR: ½ Semester*

*Prerequisite: None*

Street Law is a semester-long elective. The United States legal system is huge and can seem overwhelming. When you do not have the right information about something that is this complex it can be easy to find fault in what you do not know or understand. This course is designed to help students understand the complexities of our judicial system and with that understanding be able to make informed judgments and decisions. Street Law is an introduction to the legal system with an emphasis on criminal and juvenile law. Students will learn to differentiate criminal and civil law, felonies and misdemeanors, the rights of the accused, search and seizure rights and other constitutional guarantees. Students will conduct mock trials, interact with guest speakers including law enforcement and judicial officers, and take field trips. Assessment is based on tests, essays, research projects and the commitment of students to actively participate in the course.

### Economics and Public Policy

*CR: ½ semester*

*Prerequisite: None*

Why do people make the economic choices that they make? What should the role of government be in the economy? These questions and many others will be explored in Economics and Public Policy which is an introduction to Micro and Macro Economics. The course will enable students to understand their role in the global economy and to evaluate conditions such as unemployment, inflation, growth and how individuals, with a knowledge of economics, can influence public policy. Students will be assessed on written work, tests, class participation, research, preparation, simulations and presentations. In addition, students will take part in an all day international trade simulation conducted with over 100 New England high schools that is sponsored by the Federal Reserve Bank of Boston. By the end of the semester students should be able to critically read and discuss today's events from the perspective of an economist.

### Western Religions

*Grade 12*

*CR: ½ semester*

*Prerequisite: None*

Judaism, Christianity and Islam, and Indigenous are the focus of Western Religions. Western Religions examines the historical development of each religious tradition as well as its impact on societies. Students will read from the Torah, the New Testament, and the Qua’ran to understand the concept of God, and the moral teachings of each faith. Also, we will meet with leaders of local religious congregations and practitioners to learn about the role of faith in their lives and in the life of their community. The course is expected to be a challenge to students preparing for college. Assessment is based on tests, essays, research projects and the commitment of students to actively participate in the course.

### Eastern Religions

*Grade 12*

*CR: ½ semester*

*Prerequisite: None*

Hinduism, Buddhism, Confucianism, Taoism, and Shinto, are the focus of this one-semester course. Students will read from the Bhagavad Gita, the Dhammapada, The Analects, The Tao, and other sacred texts. We will discuss the concept of Man, and the moral teachings of the religions in historical context. Also, we will meet with leaders of local religious congregations and practitioners to learn about the role of their faiths in their lives and in the life of their community. The course is expected to be a challenge to students preparing for college. Assessment is based on tests, essays, research projects and the commitment of students to actively participate in the course.

### Seminar in Modern European Civilization

*Grade 12*

*CR: ½ semester*

*Prerequisite: None*

This semester seminar presents the development of western thought and society by tracing European history and culture from the post-Renaissance era to the present. Students play a major role in the development of the curriculum through teaching seminars.

The course is a rigorous history elective which emphasizes discussion, original thinking, creativity, and writing through the examination of various primary documents and key biographies. Students read original texts from western intellectual history and analyze period music, art, and literature. The class offers the opportunity for travel in Europe, includes speakers, and several museum visits. It is an essential course for Juniors and Seniors who are interested in gaining a foundation in the humanities as well as in political philosophy. There is a special focus on how the evolution of European society contributed to modern European issues. Students who complete this course are able to sit for the AP European history exam. There are no traditional quizzes, tests or worksheets. Students are assessed on participation, logs, essays, seminars and quarterly challenges.

**Comparative Political Systems***Grade 12**CR: ½ semester**Prerequisite: None*

Comparative Political Systems is a course where students will analyze the leading political ideologies of the modern world and understand the political philosophy from which they came. Ideologies will include anarchism, communism, socialism, fascism, nationalism, democracy, totalitarianism, and theocracy. Philosophy will include justice and power, liberalism, socialism, conservatism, and ideas of Plato, Machiavelli, John Locke, Thomas Hobbes, Jean-Jacques Rousseau, John Stuart Mills, Karl Marx, and Edmund Burke, to name a few.

Comparative Political Systems will help develop the students' understanding of different political structures and practices around the world. We will include the six countries covered in the AP Comparative Government and Politics syllabus as examples of these core topics. For example, countries might include Great Britain, Russia, China, Mexico, Nigeria, and Iran. Topics include methodology, power, institutional structure, civil society, political/economic change, and public policy. Students who wish to sit for the AP Comparative Government exam receive preparation through this elective. Assessment is based on tests, essays, research projects and the commitment of students to actively participate in the course.

**Psychology***Grade 12**CR: ½ semester**Prerequisite: None*

Psychology focuses on understanding human behavior through major psychological perspectives. Students should leave with a better understanding of how the brain works and what influences behavior. Students will also explore abnormal psychology through a final research project. The course draws on a number of authorities on human behavior- some from the community, some in required reading, and some through individual research. This course requires that students become actively involved in their own learning. Students' personal experience and insights inform class discussions. Evaluation will be based on class activities, participation with large group speakers, readings, homework, discussion, individual and group assignments, projects, quizzes, tests and class participation. There is a final exam at the end of the semester.

**Sociology***Grade: 12**CR: ½ semester**Prerequisite: None*

Sociology focuses on understanding the behavior of groups in society. In order to do this it is essential to see the world through the eyes of others. Using this premise, students will study issues and change in society such as gender roles, the criminal justice system, cultural difference, and social movements. The course draws on a number of authorities on human behavior- some from the community, some in required readings, and some through individual research. This course

requires that students become actively involved in their own learning, and draws on students' personal experience and insights. Evaluation will be based on class activities, participation with large group speakers, readings, homework, discussion, individual and group assignments, projects, quizzes, test and class participation. There is a final exam at the end of the semester.

**Constitutional Law***Grade: 12**CR: ½ semester**Prerequisite: None*

The work of the Supreme Court - interpreting the Constitution and applying it to court cases - is the focus of this new elective. Studying current cases on the Supreme Court's Docket will allow students to expand their knowledge of the Constitution and apply it to questions that come before the court regarding issues such as free speech, privacy, and the Internet. To a degree, the Supreme Court has shaped social norms and we will examine how they have changed over time. In doing so, students will grapple with fundamental questions of behavioral change: do new laws change behavior? Or does the law follow the changing will of the people? The course begins with a brief history of the Supreme Court and the court system, then students will begin to analyze court decisions that have had a significant impact on American history, so-called Landmark Cases. The study of the current cases will then highlight the enduring nature of the Constitution, showing that it is a living document, subject to the interpretations of each generation of Americans. Given that Hanover High School is a democratic community, students will be able to apply their understanding of being schooled in this 'democratic experiment' to the larger democratic society that awaits them. Juniors and Seniors who have an avid interest in history, law, politics, government, and current events are encouraged to register for Constitutional Law. Evaluation will be based on a variety of assessments such as homework, tests, research projects and papers, class presentations and class participation.

**World Geography***Grade: 12**CR: ½ semester**Prerequisite: None*

In addition to the five basic ways of thinking about the world geographically (space, place, regions, scale and connections) this course will examine a variety of human activities and their impact on the world. The course will include both human and physical geography and will examine a variety of geographic concepts both globally and regionally. This course is intended to be a challenging program for students and will include research projects and papers as well as student class presentations. Outside speakers and local field trips will be used to broaden the scope of the course. Evaluation will be based on a variety of assessments such as homework, tests, research projects and papers, class presentations and class participation.

## Special Services

Courses offered by the Special Education Department are open to any student based on the recommendation of an IEP team, 504 team, or with the permission of the instructor/guidance counselor.

### Learning Strategies

CR: 1/2-1

*Prerequisite:* To be determined at IEP Team

*Meeting*

This course provides remedial instruction in the basic skill areas. Content of the course is determined by the students' individualized objectives.

## Hartford Area Career & Technology Center

### Agricultural & Natural Resources Cluster

#### Industrial Mechanics & Welding

*Embedded Credit:* Science

*Leadership Club:* SkillsUSA

*College Course Option:* River Valley Community College- Claremont

Industrial Mechanics and Welding is a two-year program that explores a wide range of subjects with emphasis on developing teamwork, equipment design, building and service, fabrication skills, welding, electrical (AC/DC), power transmission, hydraulics, pneumatics and heating, ventilation, and air conditioning (HVAC). With this mechanics program, safety and correct operating procedures are stressed both in the classroom and shop.

#### Natural Resources

*Embedded Credit:* Science

*Leadership Club:* FFA Agricultural Club

Our mission is to expose our students to outdoor related careers. The six main areas of the Natural Resources program are forestry, natural history, diversified agriculture, horticulture, water, and soils. Safety and equipment/maintenance are integrated into the curriculum. Much time is spent outside the classroom. Students can achieve professional industry certification for chainsaw usage, through the "Game of Logging" course.

### Architecture & Construction Program Cluster

#### Building Trades

*Embedded Credit:* Math

*Leadership Club:* SkillsUSA

*College Course Option:* Central Maine Community College

Certified by the Association of General Contractors of Vermont, the Building Trades Program constructs an energy efficient house from the ground up, applying basic construction skills in conjunction with up-to-date construction materials and techniques. Students gain entry level skills in carpentry,

plumbing, drywall, electrical wiring, roofing, blueprint reading, and cabinet-making. Safety is of the utmost concern in all aspects of the program. Houses are completed on a two-year cycle and are available for sale, upon completion to the general public. A large percentage of the class work is done at the building site.

#### Engineering Architectural Design

*Embedded Credit:* Math

*Leadership Club:* SkillsUSA

*College Course Option:* Central Maine Community College

EAD is a two-year program that introduces students to basic mechanical and architectural design curriculum. The curriculum begins with basic hand drafting techniques and follows with exploration into computer aided drafting programs, (CAD) using AutoCAD and Solidworks software. Problem solving and design skills will be explored as students learn to navigate building, mechanical and product design, with a few of the designs documented and built in class. Second year students have a choice of concentrating on their area of interest in either mechanical or architectural related fields. If a placement can be found, students will have the opportunity to work in a co-op placement of their choice at a local business in order to acquire "on the job" experience.

### Business & Management Program Cluster

*The Business Cluster Programs offer opportunities for every Center student to participate in instruction in basic learning sessions which include financial literacy, communication, and computer tech skills. By completing this program, students can gain the Internet and Computing Core Certification, which is an industry-recognized credential.*

#### Business Administration

*Embedded Credit:* English

*Leadership Club:* Future Business Leader's of America (FBLA)

*College Course Option:* River Valley Community College- Claremont  
Vermont Technical College (Randolph)

With technology and communication trends continually changing, jobs and careers in business are exciting and rewarding. This program is designed for students interested in entering the workplace or pursuing a college degree in the fields of accounting, business, or computer, and administrative office support.

Students learn and practice skills in areas such as accounting, entrepreneurship, management, communications, marketing and economic principles, personal finance, and customer relations. Since excellent interpersonal skills are needed for success in virtually all occupations, there will be an emphasis on interpersonal communication, ethics, leadership, time management, and organization.

Students in the program are eligible to enroll in a variety of college level courses. Students earn both program and college level credits. College courses currently offered are through River Valley Community College and include Introduction to Computer Applications, Word Processing I, and Fundamentals of Accounting. In addition, students can earn industry recognized credentials in MOS (Microsoft Office Specialist) and IC3 certifications.

### Computer Technology Applications

*Embedded Credit: Math*

*Leadership Club: Future Business Leader's of America (FBLA)*

*College Course Option: River Valley Community College- Claremont*

This program focuses on the operation and function of computers (hardware and software) and computer networks including the INTERNET. Level I students focus on the Personal Computer, (PC). Hardware training includes the proper use of hand tools and test equipment, hardware failure diagnosis and repair, and system design and configuration. Software training modules in Operating Systems, programming in HTML for Web Design and in a high level language such as Java, C++, or Basic. Level II students build upon their established foundations while practicing their skills in a Network and Intranet / INTERNET environment. Those who desire have the opportunity to receive both high school and college credits through participation in Project Running Start through New Hampshire Community Technical College. Students prepare for industry certifi c certifications such as Cisco CCNA and Compia A+ or N+.

## Career Exploration Programs

### Career & Technology Exploration Program

*(Sophomore Students Only)*

*Embedded Credits: Math, English, Career Exploration*

*Leadership Club: SkillsUSA*

The Career & Technology Exploration Program is an exploratory experience for sophomores. Students earn academic credits in English, mathematics and technical exploration. In general, students study in a 12 day cycle: four days in technical programs and eight days in the classroom focusing on related English and math skills. English curriculum includes oral presentations, short-term reading and writing assignment, comprehension, listening, and evaluation skills. Mathematics consists of elements of basic math, consumer math and pre-algebra. Projects relevant to each technical area are completed as students work through each program.

## Health Sciences & Human Services Program Cluster

### Allied Medical Services

*Embedded Credit: Science*

*Leadership Club: Health Occupations Students of America (HOSA)*

*College Courses: New Hampshire Community & Technical College- Claremont*

This course introduces students to medical careers available in today's high tech health facilities. Students work toward certification in blood borne pathogens, CPR, Basic First Aid, Pet First Aid and Medical Terminology. Two Project Running Start courses, which are taught in conjunction with River Valley Community College, are Medical Terminology and Legal and Ethical Issues in Health Care. These courses provide an option for earning college credit, while students are still attending high school. The content of this program is designed for all professional entry-level allied health careers with basic anatomy and physiology being taught during the senior year.

### Human Services

*Embedded Credit: Social Studies*

*Leadership Club: SkillsUSA*

*College Course Option: River Valley Community College- Claremont*

This course provides students the opportunity to study human development, poverty, social change and careers that help people. In the junior year we take field trips to local agencies that provide assistance to individuals in need. In addition to academic work, students attend 7 week job placements that provide real life experiences working with young children, the elderly, and those with unique challenges. Students are trained and certified in First Aid and CPR. Seniors spend one semester working in our lab school for three and four year olds. They spend the second semester in a community placement that focuses on their Senior Project interest area. Seniors also can earn 3 credits from River Valley Community College as part of their second year curriculum requirement.

## Personal Service & Hospitality Program Cluster

### Cosmetology

*Embedded Credit: Science*

*Leadership Club: SkillsUSA*

The Cosmetology Program is unique in a number of ways. It is a partnership between the Hartford Area Career & Technology Center and the New England School of Hair Design. Earned hours are registered with the Board of Cosmetology in New Hampshire and count toward the 1500 hours required by the state for licensure. Hands-on practical skills include hair design, hair cutting, permanent waving and coloring, nail care, facial massage and skin care. Other subjects include the chemistry and biology of hair, professional image and leadership, state laws, receptionist skills, client handling and retention and salon management. Students wishing to complete training after high school graduation at the New England School of Hair Design would enter post-secondary education with sophomore status. Students may earn certification through the Career Safe program.

**Culinary Arts***Embedded Credit: Science**Leadership Club: Distributive Education Clubs of America (DECA)**College Course Option: Lakes Region Community College*

A large, completely equipped commercial kitchen and the "Getaway" dining room provide an excellent learning environment for aspiring chefs and food service industry professionals. Students prepare appetizers, salads, main entrees, desserts, baked goods and specialty dishes and learn all aspects of restaurant work, in both the "front of the house" and "back of the house". Demonstrations by visiting chefs and community catering projects are included as a part of the curriculum. The American Culinary Federation accredits the program. Upon successful completion of this program and passage of the national certification test students are awarded a Validated Graduate Certification.

**Transportation Program Cluster****Auto Technology***Embedded Credit: Science**Leadership Club: SkillsUSA**College Course Option: New Hampshire Community College-Manchester*

This program prepares students for careers as automotive technicians. It is a NATEF (National Automotive Technician Educator Foundation) certified training program in brakes, electronics, engine performance, suspension, and steering. Mathematics, (including algebra) and a strong science background are recommended for success in this program. The program has recently been approved as an AYES program (Automotive Youth Educational Systems.)

<http://www.ayes.org.program>. Students selected for AYES must successfully complete their junior year of the Auto Technology program. During the summer between the junior and senior year, qualified students work as paid interns at participating dealerships under the tutelage of a journeyman technician with tools and uniforms provided. Graduates of this program are encouraged to go on to post-secondary education at technical colleges. Auto Technology participates in Project Running Start with the New Hampshire Community Technical College and students may earn three college credits in Introduction to Automotive Service.

**Collision Repair & Refinishing Program***Embedded Credit: Math or Science**Leadership Club: SkillsUSA**College Course Option: New Hampshire Community College-Nashua*

Collision Repair focuses on automobile collision repair and includes mechanical body repair/replacement, sanding, masking, painting and the use and care of high tech spray

equipment. The curriculum includes fiberglass repair; metal and plastic welding, the use of structural adhesives and the proper use of an air supplied respirator system. Painting is done in our state-of-the-art DeVilbiss semi-down draft paint booth, as utilizes a new PPG aqua base waterborne paint mixing system. Collision Repair & Refinishing participates in Project Running Start with the New Hampshire Community Technical College and students may earn four college credits in Basic Panel Restoration. This program is certified by NATEF (National Automotive Technicians Education Foundation, Inc.)

**Visual Arts Program Cluster****Design And Illustration/Media Arts***Embedded Credit: Art**Leadership Club: SkillsUSA & Future Business**Leaders of America (FBLA)**National Technical Honor Society (NTHS)**College Course Option: Community College of Vermont-Wilder*

The center's Design and Illustration/Media Arts program will help you expand your creativity and explore the skills involved in graphic design, traditional illustration, animation, web design, and digital photography. The program uses state of the art software and hardware. Students will work on a variety of projects related to the state approved competency and task list to enhance the learning process. This new program will be exploring whether a partnership with our local CATV studio to expose students to video/film media will be a possibility. The Graphic Arts Education Research Foundation (GAERF) currently accredits this program. There is a post-secondary partnership with Community College of Vermont where students can earn college credit through dual enrollment programs in Graphic Design.

**Work Experience Cluster****Cooperative Education & Business Cooperative Education (Seniors Only)**

Cooperative Education is an extension of the applied technical training given at the Career and Technology Center. This flexible, individualized program enables students to develop technical and general employability skills through supervised, planned work experiences with area employers. Four primary types of experiences are available to students including: job shadows; short term, unpaid Career Work Experiences; long term salaried experience, certified by the VT Department of Education. Eligibility for the participation in Cooperative Education is based upon instructor recommendation; placements are made and students supported and supervised by the Co-op Coordinator. Credit is awarded as part of the student's program enrollment, or in addition to it, depending on the number of additional hours the student works