MESSAGE TO STUDENTS AND PARENTS

I am pleased to present the Gorham High School Program of Studies for the 2014-2015 school year. You are urged to use this guide as you select courses for the upcoming year and make plans for graduation and beyond. I encourage you to begin a series of conversations with parents, teachers, counselors, and peers about your future, your aspirations and your goals. Over twenty courses have been added in the last five years, so please take the time to examine this document for new opportunities.

The Gorham High School course offerings are listed by department and include course descriptions, grade levels, credits, and prerequisites. Your guidance counselors, as well as your teachers and advisors, are prepared to assist you in the course selection process. Please be aware of all graduation requirements as you plan for your courses. All students must earn twenty-two (22) credits distributed across eight disciplines in order to graduate. In addition, beginning with the class of 2018, all students will also need to earn a proficiency-based diploma based upon state statute (L.D. 1422). More details will follow in the coming months and years regarding how we best figure out how to meet this state requirement, meet local requirements, and above all, prepare students for a successful future.

Many Gorham High School graduates have preceded you, and have gone on to considerable success in college and technology schools, in careers, and in the Armed Services. If you take responsibility for your learning, you can be confident that your preparation at Gorham High School will provide you with the skills necessary to find success in your chosen path beyond high school. I urge you to take advantage of the opportunities at Gorham High School, Westbrook Regional Vocational Center, PATHS, in the classroom, and in extracurricular activities.

The Gorham High School faculty and staff are committed to you and your academic success. We wish you good luck in your high school education.

Sincerely yours,

Chris Record, Principal
GORHAM HIGH SCHOOL MISSION STATEMENT

The mission of Gorham High School is to provide a variety of educational opportunities in a safe, positive environment. Our aim is that each graduate thinks critically and creatively, communicates effectively, reads and listens for understanding, solves problems, acts as a responsible citizen and aspires to and realizes individual goals.

GORHAM HIGH SCHOOL CITIZENS VALUE...

Respect
Honesty
Courage
Compassion
Responsibility

TABLE OF CONTENTS

STUDENT SUPPORT SERVICES.................................................................4
  GUIDANCE OFFICE..................................................................................4
  HEALTH SERVICES..................................................................................4
  SOCIAL WORK SERVICES......................................................................5
  SUBSTANCE ABUSE SERVICES.............................................................5

ACADEMIC PLANNING AND SUPPORT....................................................5
  FOUR-YEAR PLAN..................................................................................5
  ADVISORY...............................................................................................5
  FRESHMAN ACADEMIES.......................................................................5
  INSTRUCTIONAL SUPPORT SERVICES.................................................6
  RAM (Literacy and Numeracy) CENTRAL................................................6
  ASSESSMENTS AND COLLEGE ENTRANCE EXAMS...........................6

COURSE/CREDIT/GRADING INFORMATION.............................................7
  COURSE LEVELS....................................................................................7
  COURSELOAD........................................................................................7
  SCHEDULE CHANGES...........................................................................7
  GRADING SYSTEM..................................................................................8
  STANDARDS-BASED GRADING & 21ST CENTURY LEARNING EXPECTATIONS..............................................................................8
  NATIONAL HONOR SOCIETY.................................................................9
  NCAA REQUIREMENTS..........................................................................10
HONOR ROLL..................................................................................................................................................10

PROMOTION REQUIREMENTS.......................................................................................................................10

GRADUATION REQUIREMENTS.......................................................................................................................10

CREDIT REQUIREMENTS...............................................................................................................................10

DISTRIBUTION REQUIREMENTS....................................................................................................................11

COMMUNITY SERVICE................................................................................................................................11

GRADUATION HONORS.................................................................................................................................11

EARLY GRADUATION.........................................................................................................................................11

GRADUATION CREDITS EARNED OUTSIDE THE SCHOOL PROGRAM..............................................................11

CREDIT RECOVERY OPTIONS.......................................................................................................................11

EARLY COLLEGE FOR ME AND EARLY STUDIES PROGRAMS..........................................................................12

INDEPENDENT STUDY.....................................................................................................................................12

VIRTUAL HIGH SCHOOL..................................................................................................................................13

PROGRAMS OF STUDY....................................................................................................................................13

POST-SECONDARY PREPARATORY PROGRAM................................................................................................13

ENGLISH.........................................................................................................................................................14

FINE ARTS......................................................................................................................................................17

FOREIGN LANGUAGES..................................................................................................................................20

HEALTH.........................................................................................................................................................22

MATHEMATICS............................................................................................................................................22

PHYSICAL EDUCATION.................................................................................................................................24

SCIENCE.........................................................................................................................................................25

SOCIAL STUDIES...........................................................................................................................................28

TECHNOLOGY..................................................................................................................................................30

ALTERNATIVE EDUCATION...........................................................................................................................33

BRIDGES (Grade 9).......................................................................................................................................33

UPPERCLASSMEN ALTERNATIVE EDUCATION............................................................................................34

ENGLISH LANGUAGE LEARNERS...............................................................................................................35

VOCATIONAL OPPORTUNITIES....................................................................................................................37

WESTBROOK REGIONAL VOCATIONAL CENTER...........................................................................................37

PORTLAND ARTS AND TECHNOLOGY HIGH SCHOOL..................................................................................43
STUDENT SUPPORT SERVICES

The Gorham High School Student Services Department believes that each student is unique in his/her intellectual, social, emotional, physical and aesthetic development.

GUIDANCE OFFICE

Beginning in 2010-11, a district-wide committee began examining our K-12 student services approach (Guidance & Social Work). This intensive work has led to a change (and we believe an improvement) in our GHS guidance structure beginning in 2012-13. For as far back as any of us can remember, GHS guidance counselors have worked as "generalists" with a caseload of around 300 students in a grade span 9 - 12. We have very talented and dedicated counselors at GHS, however we think we can offer more effective guidance services by adapting our structure and moving to a "specialist" approach. We are confident this change will lead to better guidance service for our students in the years to come. Continuing in 2014-15, we have the following "specialist" roles in our guidance department:

1) Transition Specialist: This counselor will spend about 60% of his/her time at GHS & about 40% of his/her time at GMS. This person will act as a "shepherd" in the spring by getting to know the 8th graders as well as helping them get to know GHS. Then he/she will "transition" with the in-coming 9th graders into GHS in the fall and continue to offer the freshmen support and guidance.

2) Placement, Assessment, & Support Specialist: These two counselors will work primarily with sophomores and juniors and focus on a myriad of topics including scheduling; monitoring student progress toward graduation; addressing student & parent questions/concerns; coordinating various testing (PSAT, SAT, NWEA, AP, etc.); coordinating on-line learning options such as PLATO, VHS, and Rosetta Stone; connecting with PATHS/WRVC; serving as 504 coordinators; and other tasks as well.

3) Career & Post-Secondary Placement Specialist: This counselor works primarily with juniors during the spring and seniors throughout senior year regarding two areas. One is monitoring their successful progression towards graduation from GHS. The second is guiding a thorough examination and pursuit of career and post-secondary options (college, technical school, military) after graduation from GHS. This person will also be in contact with GHS graduates after graduation to continue to offer support with all post-secondary and career options.

GHS Guidance utilizes Naviance as an online tool that allows students at GHS to organize their post-secondary plans in one place. Students can create four-year plans, research post-secondary institutions, create resumes, take career assessments, and even give school counselors and teachers the ability to submit documents to post-secondary institutions. The use of Naviance extends to parent use, as well. Some of the Naviance tools we use at GHS are:

- Resume templates and development software
- Course-planning tools
- Myers-Briggs Type Indicator
- Holland’s Career Interest Profiler
- Scholarship searches
- Comprehensive college search software
- College enrichment opportunities
- Up-to-date financial aid resources

HEALTH SERVICES

Nursing services at Gorham High School include recognizing the health needs of students and upholding many state laws and Board of Education policies that identify preventative measures that promote wellness in the school community. The nurse is available to assist with accidents, communicable disease tracking, and annual assessments of immunization
status, health screening, medications, health policies and maintenance of student health records. The adolescent population frequently has many questions and concerns that are addressed with the nurse and in turn this may facilitate a call to the parents, referrals to outside agencies and to their own primary care person. If you need to reach the nurse at GHS, the number is 222-1105.

SOCIAL WORK SERVICES
A social worker licensed by the State Board of Social Work Licensure may provide social work services to students, school staff members, and parents consistent with the laws and regulations governing the practice of social work.

SUBSTANCE ABUSE SERVICES
A drug and alcohol counselor may provide services to students with substance abuse issues, and also for students affected by someone’s drug use. Services may include, but not limited to, assessment and evaluation, counseling support, and recommendations. The Juvenile Automated Substance Abuse Evaluation (JASAE) is available upon request of the student, to determine if further evaluation is necessary to treat issues.

ACADEMIC PLANNING AND SUPPORT

FOUR-YEAR PLAN
We expect you to complete a four-year plan of your program, recognizing that each year you will need to update and reassess your plan. A four-year plan will give you focus and a better understanding of the educational foundation you are building for your future plans—in the work force, college or technical college, military service, etc. Your four-year plan will give you a means to keep track of your progress toward graduation.

For those of you who already have begun studies at Gorham High School, the Program of Studies is a resource to help you choose your academic courses and priorities—academic, goal setting and achievement does not happen without recognition of what you have already accomplished, as well as reassessment of your future goals, career path and plans. Your four-year plan should be based on a realistic picture of your abilities, motivation, and pace of learning as demonstrated by prior grades and achievement test results. Your interests and aspirations should also be considered. Self-assessment is critical to this process. Ask yourself, “What do I want to be ready to do when I graduate from GHS?” If you have no idea yet, schedule an appointment to talk with your school counselor. There are career interest inventories, which may help you clarify your interests and goals.

ADVISORY
The advisory program at Gorham High School is designed to connect every student to an adult in the school. Students remain connected with their advisor during their entire stay at Gorham High School, and this four-year partnership provides the time necessary to develop a trusting relationship. Ideally, as student-advisor relations develop, all students will know and be able to speak comfortably with at least one adult in the high school. This ongoing working relationship enables advisors to know each advisee’s aspirations and the obstacles standing in the way of these aspirations. While learning of their advisees’ hopes, advisors will help students find solutions to obstacles that are best suited for each student. Parents should also get to know their students’ advisors. Advisors will remain a constant through a student’s years at Gorham High School and can serve as a contact for parents.

FRESHMAN ACADEMIES
We formed a committee at GHS during the 2009-10 school year to examine the 9th grade experience of our students. We considered the following: 1) Student transition from the middle school; 2) Academic experiences of students and teachers in grade 9; and 3) Social/emotional aspects of being a 9th grader in a large high school. The committee studied GHS data and current educational research, visited multiple high schools in the area, and had numerous conversations and brainstorming sessions regarding freshmen year. Above all else, one piece of data in particular stood out to us: the 2009-
10 class structure created 140 different possible teaching combinations a student could have for Math, Science, Social Studies, and English. This past arrangement made it nearly impossible for teachers to communicate about students they taught in common and nearly impossible for teachers to collaborate in order to get on the same page regarding course requirement due dates (homework, tests, projects, essays, etc.) and course expectations.

All of this work led to the creation of three freshmen academies for the 2010-11 school year. This structure continued successfully in the 2011-12 school year, and will continue in the years to come. The academies each have a Math, Science, Social Studies, English, and Special Education teacher and are balanced in terms of class size and student make-up. The goal of the academies is to improve communication and increase collaboration among the academy teachers. These five teachers all share the same group of 9th grade students and share a common time in the daily schedule to meet together to improve communication and enhance collaboration. This common time enables the teachers to have conversations regarding any student that is struggling in multiple classes and in turn create a common action plan to help the student improve. This time also allows teachers to "get on the same page" about assignments and due dates. It should be stressed to everyone that this structure does not dictate a change in curriculum, instruction, or assessment. It allows all electives to be offered to freshmen and all class levels to exist. It continues to enable freshmen to travel throughout the building and integrate with other students (9-12) in other classes. Our aim is simply to provide a structure to improve communication and enhance collaboration for our freshmen teachers.

INSTRUCTIONAL SUPPORT SERVICES
Listed below are the Instructional Support Services offered by Gorham High School. For more information on Instructional Support Services, visit the Gorham School website: www.gorhamschools.org.

- English Language Learners
- Response to Intervention (RTI)
- Special Education
- Gifted and Talented
- Section 504
- Literacy Specialist
- Numeracy Specialist

RAM (Literacy and Numeracy) CENTRAL
The professionals in this room provide a variety of educational resources to support the students at Gorham High School, including Freshman Focus & Sophomore Strategies classes, teacher and peer tutoring, guided study halls, and PLATO credit recovery courses. In addition, after school tutors from USM are available on Mondays and Tuesdays. Students are scheduled for resources in RAM Central either through the RTI (Response to Intervention) process, guidance, or by teacher recommendation to either the Literacy or Numeracy Specialist.

- Luci Bowers Literacy Specialist (Pending budget decisions)
- Lynn Carroll Numeracy Specialist, Grades 6-12
- Literacy Educational Technician and PLATO Coordinator

ASSESSMENTS AND COLLEGE ENTRANCE EXAMS
Currently, sophomores and juniors (second and third year students) take the PSAT (Preliminary Scholastic Aptitude Test) in October. Juniors (third year students) are required to take the SAT (Scholastic Aptitude Test) as well as a science augmentation test in the Spring. These tests now replace the MEA as the State of Maine Assessment and are paid for by the state.

<table>
<thead>
<tr>
<th>Required Testing at GHS</th>
<th>Year</th>
<th>Month/Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAT - Preliminary Scholastic Aptitude Test</td>
<td>Sophomore &amp; Junior</td>
<td>October</td>
</tr>
<tr>
<td>Science Augmentation</td>
<td>Junior</td>
<td>March</td>
</tr>
<tr>
<td>SAT - Scholastic Aptitude Test</td>
<td>Junior</td>
<td>May</td>
</tr>
<tr>
<td>NWEA - Northwestern Evaluation Assessment</td>
<td>Freshman &amp; Sophomore</td>
<td>Spring</td>
</tr>
</tbody>
</table>
Most colleges require students to take a college entrance exam and/or placement exam. For your planning, general information regarding these exams is outlined below. For specific test dates, testing sites, and fees, contact the Guidance Office.

<table>
<thead>
<tr>
<th>Other Available Tests</th>
<th>Year</th>
<th>Month/Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT - Scholastic Aptitude Test</td>
<td>Junior &amp; Senior</td>
<td>Oct, Nov, Dec, Jan, Mar, May, June</td>
</tr>
<tr>
<td>SAT II - Subject Tests</td>
<td>Junior &amp; Senior</td>
<td>Oct, Nov, Dec, Jan, May, June</td>
</tr>
<tr>
<td>ACT - American College Test</td>
<td>Junior &amp; Senior</td>
<td>Oct, Dec, Feb, Mar, April</td>
</tr>
<tr>
<td>Accuplacer - Placement Exam</td>
<td>Junior &amp; Senior</td>
<td>Fall and Spring</td>
</tr>
</tbody>
</table>

### COURSE/CREDIT/GRADING INFORMATION

#### COURSE LEVELS
Gorham High School believes strongly in challenge by choice. If a student wants to take an advanced class, they may, with the approval of their parents and with knowledge of the demands of the course.

*Advanced Placement* - These courses are highly challenging academic subjects designed to provide students with the background to take the AP exams. It is possible to earn college credit or advanced standing by scoring within a certain range on the AP exam. AP courses are offered in Biology, Chemistry, Environmental Science, U.S. History, English Language, English Literature, Calculus, European History, Music Theory, and Latin Vergil. AP Physics may be offered, pending budget decisions.

*Advanced Level* - These courses are rigorous and should be selected by the student with a strong foundation in the subject area. Successful completion of these courses will prepare a student for success in most two (2) and four (4) year post-secondary programs.

*Other Levels* - These courses are for students with a good background, but who need more time and practice for mastery of the skills and concepts of the subject. Successful completion of these courses will prepare a student for success in most two (2) and four (4) year post-secondary programs.

#### COURSELOAD
Students must be enrolled in and attending a minimum of five credit-bearing courses (or periods) each semester to have full time status. A student will not be eligible to participate in extracurricular activities if he/she is not a full time student.

Seniors are highly encouraged to maintain the same and/or higher rigor of courses, as stressed upon by all post-secondary institutions.

#### SCHEDULE CHANGES
The GHS Student Services Department will be holding an add/drop period between the 2nd and 5th of September to finalize schedules for the 2014-2015 school year (exact dates may change). There will not be an add/drop period at the beginning of second semester. If you have concerns about your second semester schedule, please meet with your school counselor during the add/drop period in September. To emphasize, seniors will not be allowed to drop/withdraw from courses after the add/drop period at the start of the first semester.

After the add/drop period, students are strongly discouraged from making schedule changes. If it becomes necessary for a student to consider a schedule change, the student must:
1) Discuss it with teachers and counselor and parents.

2) If a change is warranted, complete a schedule change form and obtain all required signatures, including an administrator.

3) Return the form to your counselor who will make the changes to the schedule and assign a study hall.

4) Students must follow their original schedule until the schedule change is processed.

Please note: A same-level course change to a different teacher requires principal approval. K-12 protocol will be followed.

For course withdrawals made after the add/drop period, but within the first 5 weeks of the term, a grade of W will be posted for the quarter and will show on the grade report.

For course withdrawals made after the first 5 weeks of the term, a grade of WP or WF will be posted for the quarter and for the final grade and will show on the grade report and the student transcript. If the student is passing the course at the time of withdrawal, a WP grade will be assigned. If the student is failing the course at the time of withdrawal, a WF grade will be assigned. A grade of WF or WP is not counted in the student GPA. However, any student with a WP or WF on their report card will be excluded from Honor Roll for that quarter.

If a student withdraws from a course and transfers to different level course, a grade of W will be posted for the quarter and will show on the grade report. Grade information from the original course will be used in calculating the grade for the replacement course.

GRADING SYSTEM

Grades are reported to students and parents online each quarter through Infinite Campus. Only final grades are included in the cumulative GPA, which is recalculated at the end of each semester. Courses are not weighted. Gorham High School does not report class rank. Post-secondary institutions are aware of grading system. No matter what grading approach a high school uses, Post-secondary institutions recalculate GPAs utilizing their own systems in order to make admitting decisions.

Numerical grade equivalents are as follows:

- A+ = 99 - 100
- A = 95 - 98
- A- = 93 - 94
- INC = Incomplete
- B+ = 91 - 92
- B = 87 - 90
- B- = 85 - 86
- W = Withdraw
- C+ = 82 - 84
- C = 78 - 81
- C- = 75 - 77
- WP = Withdraw Passing
- D+ = 74
- D = 71 - 73
- D- = 70
- WF = Withdraw Failing
- F = below 70
- TR = Transfer Grade

Incomplete grades must be made up within 2 weeks of the close of the quarter. Additional time may be approved by the teacher and principal.

STANDARDS-BASED GRADING & 21st CENTURY LEARNING EXPECTATIONS

Starting in 2009, Gorham High School began using a dual grading system. The traditional numerical grades are reported college transcripts. However, included with the report cards, there is additional information provided about student progress on subject area standards and on our 21st Century Learning Expectations.

A 21st Century GHS graduate is...
- A Clear and Effective Communicator
- An Integrative and Informed Thinker
- A Creative and Practical Problem Solver
- A Self-Directed and Lifelong Learner
- A Responsible and Involved Citizen
GHS Utilizes School-Wide Rubrics for Reporting Student Progress in the Following Departments (the rubrics can be viewed on goghs.org)

<table>
<thead>
<tr>
<th>Rubric Type</th>
<th>Department(s)</th>
<th>Times / Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizenship</td>
<td>Advisory</td>
<td>Once / Semester</td>
</tr>
<tr>
<td>Conduct &amp; Effort</td>
<td>Every Course</td>
<td>Every Quarter</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>Science &amp; Public Speaking</td>
<td>Once / Semester</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Science, Math, Foreign Language, Art, Music, PE, &amp; Technology</td>
<td>Once / Semester</td>
</tr>
<tr>
<td>Research</td>
<td>Social Studies &amp; Health</td>
<td>Once / Semester</td>
</tr>
<tr>
<td>Writing</td>
<td>English</td>
<td>Once / Semester</td>
</tr>
</tbody>
</table>

**NATIONAL HONOR SOCIETY**

Students interested in applying for membership in the National Honor Society must:

1. Be a junior or senior with a cumulative GPA of 90.0 or above: staple a transcript to your completed application.
2. Have been involved in three or more school-related extracurricular activities over the course of their high school experience.

The application process consists of the following:

1. The student will fill out the administrative section of the application, which documents GPA, extracurricular activities and community service.
2. The student will have two faculty members, whose classes s/he has taken, complete recommendations.
3. The student will write an essay illustrating his/her understanding of the Four Pillars of NHS and his/her interest in becoming a member of NHS.

*Any late or incomplete applications will not be considered for review.

The following criteria will be used for the selection of new members:

1. The student’s extracurricular activities* will be weighted:
   - Three activities = 1 point
   - Four activities = 2 points
   - Five activities = 3 points
   - Six activities or more = 4 points

2. The student’s community service involvement** will be weighted:
   - Five hours or less = 1 point
   - Five to ten hours = 2 points
   - Ten to nineteen hours = 3 points
   - Twenty hours or more = 4 points

3. The teacher recommendations will be averaged together, providing a 1-4 scaled score, will consider the following areas:
   - Punctuality and attendance
   - Classroom leadership
   - Effort and attitude
   - Participation

4. All faculty members will be provided with a list of students who have applied. Faculty members will then have a chance to share confidentially any concerns they may have regarding applicants with the Faculty Council. The following criteria will be used:
   - Two or more concerns/negative responses = 0 points
   - One concern/negative response = 1 point
   - No responses = 2 points
   - One commendation/positive response = 3 points
   - Two or more commendations/positive responses = 4 points
The maximum score that can be achieved in each category is a four, resulting in a total possible 16 points. Students who earn 14 points (88%) are considered strong candidates for membership in the National Honor Society. This numeric system is used as a baseline for applicants, and the Faculty Council reserves the right to deny or accept new membership regardless of the number of points received on the application. As the national organization requires, the decisions of membership cannot be based on a numeric system alone. The essay section of the application is an opportunity for the student to articulate his/her qualities that will make him/her a distinguished member of the National Honor Society.

The Faculty Council consists of five faculty members who volunteer on an annual basis to fill the positions. The NHS Advisor is a non-voting member whose responsibility regarding the selection of new members is to organize the process.

** The way in which applications are scored/weighted is currently under revision and a new system will be in place for the start of the 2014/2015 school year. These new guidelines will be posted on the GHS website when completed.

** NCAA REQUIREMENTS

All student athletes who anticipate playing Division 1 or Division 2 college sports need to adhere to NCAA eligibility requirements and register with the NCAA clearinghouse (usually done after completion of junior year). Please see www.ncaa.org and www.ncaaclearinghouse.net for the current information on approved high school courses and see your guidance counselor and/or the athletic director if you have any questions.

** HONOR ROLL

The Gorham High School Honor Roll is published quarterly, three weeks after grades close. A copy of the Honor Roll is posted in the High School and is sent to The Gorham Times and The American Journal for publication.

To be eligible for High Honors, a student must:
1. Be enrolled in a minimum of 5 periods of numerically graded academic and/or vocational courses
2. All grades for the quarter must be 93 or greater.
3. Receive no grade of INC, WP, WF for the quarter.

To be eligible for Honors, a student must:
1. Be enrolled in a minimum of 5 periods of numerically graded academic and/or vocational courses
2. All grades for the quarter must be 85 or greater.
3. Receive no grade of INC, WP, WF for the quarter.

** PROMOTION REQUIREMENTS

Grade level placement is determined by the number of credits earned by the end of each academic year. A fourth year student who has not earned the minimum 16 credits to become a senior is not guaranteed to graduate with their class.

- Grade 9 to 10.............A student must have earned 5.0 credits
- Grade 10 to 11...........A student must have earned 10.0 credits
- Grade 11 to 12.........A student must have earned 16.0 credits

** GRADUATION REQUIREMENTS

CREDIT REQUIREMENTS

All students must complete 22 Carnegie Units (credits) in order to graduate. In general, one credit is awarded for each passing final grade in a full-year course and .5 credit is awarded for each semester course, except where noted otherwise in the course descriptions.
In addition, beginning with the class of 2018, all students will also need to earn a proficiency-based diploma based upon state statute (L.D. 1422). More details will follow in the coming months and years regarding how we best figure out how to meet this state requirement, meet local requirements, and above all prepare students for a successful future.

**DISTRIBUTION REQUIREMENTS**

In order to graduate, 16.5 of the 22 required credits must be earned in the following disciplines as prescribed below:

- **English** 4.0 credits
- **Mathematics** 3.0 credits
- **Science** 3.0 credits
- **Social Studies** 3.0 credits*
- **Technology** 1.0 credit
- **Physical Education** 1.0 credit
- **Fine Arts** 1.0 credit
- **Health** 0.5 credit

The remaining 5.5 credits may be earned by elective credit or overflow credit.

* All students must earn credit in World History I, American Studies or AP US History or American History 10, and World History II or AP Modern European History.

**COMMUNITY SERVICE**

Community service is not required to earn a diploma. However, each student must have accumulated twenty (20) community service hours in order to participate in graduation ceremonies. Community Service forms are collected and the hours are recorded by the student’s advisor. This requirement must be completed by the end of May, senior year.

**GRADUATION HONORS**

We honor graduating seniors who have achieved at a high academic level during their time at GHS. Through their hard work these students have earned impressive GPAs. Students who meet the following criteria with credits earned through 7 semesters of earned credits at an accredited high school will be recognized at the close of senior year.

- GPA 93 - 94.999 = cum laude
- GPA 95 - 97.999 = magna cum laude
- GPA 98 - 100 = summa cum laude

**EARLY GRADUATION**

GHS offers a wide range of opportunities for students. In addition to the regular curriculum, alternative programming to meet individual needs is an integral part of the school. Under certain conditions, a rare exception to the normal four-year high school sequence will be considered as an alternative. However, to be considered for early graduation, a student must follow certain procedures. By the close of sophomore year, student should speak with a guidance counselor to find out the specific guidelines that need to be followed and approved by the GHS principal.

**GRADUATION CREDITS EARNED OUTSIDE THE SCHOOL PROGRAM**

**CREDIT RECOVERY OPTIONS**

Gorham High School offers the following options for students who have failed a core course and are motivated to recover the lost credit to stay on track for graduation.
**PLATO:** The computer-based PLATO Learning Environment will be used at GHS primarily as a credit recovery opportunity for students who have failed a quarter or two, or for students whom have, for whatever reason, missed a portion of a semester of school. PLATO courses are not designed to replace the classroom experience. The PLATO learning lab is available to students during their study hall and is proctored in RAM Central. Guidance schedules students into the lab. Students work on specific course modules that have been assigned to them by their teacher. Upon successful completion of the assignment work, the content area teacher may change the failing quarter grade to a 70.

To be eligible for PLATO, a student must:
1. Have failed a quarter (limit two quarters/year/subject);
2. Be referred by the classroom teacher, IEP team, or RTI team;
3. Have the motivation to work independently and take responsibility for his/her learning;
4. Demonstrate willingness and ability to take notes during PLATO tutorial sessions.

**Rare Exception Clause:** Any proposed eligibility exception will be discussed with the teacher, the team leader, guidance, special education case manager (when appropriate), and the administration before it is endorsed.

**Summer School** - Students who fail a class with a yearlong average of a 60 or above, and/or and 80% attendance record may elect to go to summer school to recover the credit, unless a student has already utilized PLATO for two quarters for a course during the school year. Summer school options may be available at area high schools. GHS may also offer a summer school option if the budget allows for it. Students are responsible for all fees and transportation. Students may not accrue more than four summer school credits on their transcript. Contact the Guidance Office for details.

**EARLY COLLEGE FOR ME AND EARLY STUDIES PROGRAM**
Juniors and seniors may be eligible to take courses at USM, UNE, St. Joseph's College or one of the community colleges. Students who qualify will be able to get an early start on college for little or no cost, which varies depending on college. Students should discuss their options for this early studies program with their school counselor. Transportation, books, and fees are the responsibility of the student.

Students who successfully complete a 3 or 4 credit college course through an early studies program will earn 1.0 high school credit and will receive a P for a grade.

**INDEPENDENT STUDY**
An Independent Study is an opportunity for students to design a unique course of study. Some of the reasons to consider this option are: the subject/topic in which you are interested is not offered at GHS; you want to do a research project of interest to you; you are interested in creating a product, or participating in an experience, as a special component or extension of a course or interest; or you want the opportunity to delve deeply into a subject to solve a problem or to answer a question.

An Independent Study must be a serious venture, with a clear action plan that will insure that the learning for which the study is designed will occur. To enter into an Independent Study contract at GHS, a student must: 1) Outline specific objectives and plan how the project will be evaluated, to guarantee that you gain the knowledge and skills you set out to learn; 2) establish a clear time line, including checkpoints along the way; 3) clearly state from the beginning a criteria for grading your Independent Study; 4) make a final presentation to the Independent Study Committee (the presentation will count as part of the evaluation for a grade;) and 5) keep a log of your progress and activities during the course of your Independent Study.

An Independent Study cannot be a substitute for a course that is a graduation requirement (rare exceptions, approved by principal), and it does not count toward the minimum course load required for fulltime status. An Independent Study is awarded a Pass/Fail grade.
VIRTUAL HIGH SCHOOL
Virtual High School is an online collaborative of high schools across the country. The intent of providing VHS online courses is to offer a variety of courses that we otherwise cannot offer.

Online courses are demanding and require 4-10 hours a week of work to complete, require strong motivation, and the ability to work independently. Currently seats are reserved for 11th and 12th grade. You will also be required to meet at least weekly with Gorham’s Site Coordinator. Seating is limited to only 10 students per semester. Sign-ups are first-come first-served. Virtual High School course grades count towards a student's GPA, just as any semester or full-year course does at Gorham High School.

Online courses are a great opportunity to explore a subject or course not offered at Gorham High School. They also give you an opportunity in which you can be successful learning in an independent environment. If you're interested, you should see your school counselor. You can explore Virtual High School and the catalog of courses at www.govhs.org.

PROGRAMS OF STUDY

POST-SECONDARY PREPARATORY PROGRAM

(College, Vocational, Military)

<table>
<thead>
<tr>
<th>Grade</th>
<th>English</th>
<th>Social Studies</th>
<th>Math</th>
<th>Science</th>
<th>Foreign Language</th>
<th>Electives &amp; Diploma Req</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>English 9 Freshman Focus English 9 Advanced</td>
<td>World History I &amp; Honors Challenge</td>
<td>Algebra 1 Algebra 1 Advanced Geometry Advanced</td>
<td>Earth Space Science &amp; Honors Challenge</td>
<td>Foreign Language I</td>
<td>PE 1 Freshman Focus Fine Arts /Technology</td>
</tr>
<tr>
<td>10</td>
<td>American Studies American Literature Adv. &amp; AP US History English 10 &amp; American History 10</td>
<td>Geometry Geometry Advanced Algebra 2 Algebra 2 Advanced</td>
<td>Biology Biology Advanced</td>
<td>Foreign Language I or II</td>
<td>Health PE1 or PE 2 Fine Arts /Technology</td>
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The English curriculum includes freshman, sophomore, junior, and senior programs. Each student is required to obtain a minimum of one credit of English each year. All English courses are aligned with the Maine Learning Results standards, and are currently being aligned with the Common Core State Standards recently adopted by the state of Maine. The Common Core State Standards emphasize preparing students for the shifting demands of higher education and the workplace, with a critical focus on the interrelated skills of Reading, Writing, Language Use, and Listening and Speaking.

**Freshman Program** - During the freshman year, the students will be introduced to various types of literature (novel, short story, play, poem, essay), develop their writing and thinking skills, and increase their vocabulary. This program is designed to provide a foundation to assist the students in their three remaining years of English study.

**Sophomore Program** - The sophomore English course is part of the American Studies course, concentrating on American Literature in the context of history.

**Junior Program** – One semester of the junior year English program continues the study of American Literature, while the other focuses on British literature. Students will read poems, essays, short stories, plays and novels. In addition, attention is given to vocabulary, composition, and grammar study.

**Senior Program** - The English program for seniors seeks to polish the reading, writing, speaking, listening, and thinking skills which the student has been developing during his/her twelve years of schooling. World Literature and writing provide the basis for English 12. Students must register for and successfully complete the full-year course to obtain the full credit of English required for graduation.

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**Freshman Program**

109 Freshman Focus 1 Credit
The purpose of this yearlong course is to help freshmen students become independent learners and strategic readers and thinkers. The course focuses on building student comprehension, vocabulary, fluency, and writing skills, while reinforcing organizational skills and study habits. Students take this course in addition to English 9; however, there will be no additional homework.

**Prerequisites/Notes:** Required for students reading below grade level, based upon NECAP/NWEA and middle school performance. Concurrent enrollment in English 9 and administrative approval. Earns elective credit.

110 English 9 1 Credit
The course is designed for students with developing reading and writing skills and focuses on genre study in literature. Students will read a variety of core texts as well as independently selected materials. All freshmen will explore the research process through a formal I-Search paper, and will learn to write structured academic essays, including the five-paragraph essay. The course includes vocabulary and grammar study.

**Prerequisites/Notes:** Placement based on NECAP/NWEA test scores and middle school performance/teacher recommendations.

115 English 9 Advanced 1 Credit
This course, designed for students with proficient reading and writing skills, focuses on genre study in literature. Core texts include, but are not limited to, Shakespeare’s *Romeo and Juliet* and John Steinbeck’s *Of Mice and Men*. Students will also read a variety of independently selected materials. All freshmen will explore the research process through a formal I-Search paper, and will learn to write structured academic essays, including the five-paragraph essay. The course includes vocabulary and grammar study.

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**Sophomore Program**

119 Sophomore Strategies 1 Credit
The purpose of this yearlong course is to support second-year students as they move toward becoming independent learners and strategic readers and thinkers. The course focuses on continuing to build student comprehension,
vocabulary, fluency, and writing skills across content areas. In addition, there will be an emphasis on reinforcing study and organizational skills. There will be no homework assigned in this class. Students will be selected for this class based on test scores and teacher recommendations.

Prerequisites/Notes: Concurrent enrollment in sophomore English and administrative approval. Earns elective credit.

120 English 10 Literacy 1 Credit
This course is designed for students who still require a high degree of individualized attention to develop their reading and writing skills. The course content is American literature in all genres, writing, comprehension strategies, vocabulary development, skills building, and unit-related projects. Student reading may include, but is not limited to, Soldier's Heart, Rescue Josh McGuire, and The Wave.

Prerequisites /Notes: Administrative recommendation and approval.

425E American Studies English 2 Credits
This is a college prep-level course taken in conjunction with American Studies Social Studies. Students will have opportunities to engage in interdisciplinary learning combining American Literature and U.S. History. The two credits for this course must be earned simultaneously, even though students will receive separate Social Studies and English grades. The English texts will be primarily novels, plays, short stories, and poems by American authors, but will also include non-fiction pieces. Most of the texts will be thematically and/or chronologically connected to what students are covering in Social Studies. Major works of literature may include The Absolutely True Diary of a Part-Time Indian, Our Town, The Great Gatsby, To Kill a Mockingbird, The Things They Carried, and Feed. The writing curriculum will also focus on developing students’ writing skills, focusing primarily on analytical writing, but also on narrative and research pieces. The course should help students to read progressively more complex materials, write for academic purposes, process their own ideas, have the knowledge base to become active citizens, and prepare to be successful in their future educational pursuits.

Prerequisites/Notes: English 9 credit or equivalent. Concurrent enrollment in American Studies Social Studies.

125 Honors American Literature 1 Credit
This is a challenging and comprehensive survey of American literature. Students will study works such as The Scarlet Letter, Winesburg,Ohio, To Kill a Mockingbird, The Great Gatsby, Slaughterhouse Five, and The Things They Carried. In addition to developing analytical reading skills, students will continue to work on components of the writing process. This course is paired with AP American History. A student should have the recommendation of his or her freshman teacher before registering for this course.

Prerequisites/Notes: Recommendation of 9th grade Academy teachers. Students are expected to complete a graded summer assignment.

Junior Program

140 English 11 1 Credit
This course is designed for students who need continued support with the reading and writing processes. Reading selections will be drawn from a mix of contemporary fiction and non-fiction. Reading will include core texts as well as independently selected materials. Students will complete a research project. The course also includes SAT preparation and support with the college application process.

Prerequisites/Notes: Placement based on student achievement on the NWEA and 10th grade English. Students in English 11 will typically be reading below the average level for their grade.

145 English 11 Advanced 1 Credit
This course focuses on analysis of the work of major British and American authors. Writing assignments focus primarily on analysis. The course also includes SAT preparation and support with the college application process. Students will complete a research project. Texts may include Macbeth, Lord of the Flies, The Importance of Being Ernest, Angela's Ashes, And Then There Were None, Into the Wild, and Catcher in the Rye.

Prerequisites/Notes: Summer work required.
English 11 AP Language/Composition 1 Credit
AP English Language and Composition engages students in the reading of prose written from a variety of periods, disciplines, and rhetorical contexts. The course will focus on writing for distinct purposes and will emphasize the expository, analytical, argumentative and narrative genres that form the development of academic communication. The curriculum also includes an 8-10 page argumentative research paper. Texts may include, but are not limited to, *Heart of Darkness*, *Things Fall Apart*, *Bedford Reader*, *In Cold Blood*, and *On Writing*, as well as selections from various journals and periodicals.

**Prerequisites/Notes:** Evidence of aptitude for this course includes recommendation of sophomore English teacher, strong performance on NWEA, PSAT and sophomore coursework. Students are required to complete a graded summer assignment.

Senior Program

English 12 1 Credit
This course is designed for students who need continued support with the reading and writing processes. In this course, students will have the opportunity to explore a variety of literary styles and genres. Students will write personal and analytical essays and will complete a research project. In addition to student choice reading, class texts may include *Speak*, *Death of a Salesman*, *Into the Wild*, *Hole in My Life*, *Long Way Gone*, and *The Kite Runner*.

English 12 Advanced 1 Credit
This course requires students to read and analyze multi-cultural literature with a specific focus of preparing students for college-level writing. Students will write and revise college essays to begin the year. Students will also write analytical essays, which will incorporate argument and critical literary analysis. The curriculum includes a 12-15 page research paper, focusing on biography. Literature may include *In the Time of the Butterflies*, *Death of a Salesman*, *Kaffir Boy*, *A Midsummer Night’s Dream*, and *The Kite Runner*, as well as a selection of literary nonfiction.

**Prerequisites/Notes:** Summer work required.

English 12 AP Literature/Composition 1 Credit
AP English Literature and Composition engages students in the reading of literature from a variety of periods. Students will further develop the ability to read, interpret, analyze, and critique literature. In addition, students develop college-level composition skills. The curriculum includes a 12-15 page literary research paper. Literature may include *Hamlet*, *Cat’s Cradle*, *The Bridge of San Louis Rey*, *Othello*, *A Room With a View*, and *Beloved*, as well as a wide selection of poetry and literary nonfiction.

**Prerequisites/Notes:** Recommendation of junior English teacher. Summer work required.

Electives

Creative Writing 0.5 Credit
This elective course will provide students opportunities to write in the genres of poetry, fiction and memoir. Class will be organized in a workshop format, and students will be expected to produce writing on a weekly basis as well as offer constructive feedback to their peers. A portfolio of work at the end of the semester will include revisions from the weekly writing. Opportunities and resources will be available for students who wish to send out their work for publication.

**Prerequisites/Notes:** Open to grades 10-12.

Digital Storytelling 1 Credit
This course will focus on creating a portfolio of digital stories that will include documentaries, photo-journalism, opinion pieces, traditional short-form journalism, and long-form magazine-style journalism. Members of this class will also be the inaugural editorial staff of GHS’s rebooted online student newspaper and will be responsible for maintaining social media sites in a responsible manner. This is the perfect class for anyone interested in journalism or social media careers.

**Prerequisites/Notes:** American Studies.
166 Exploring Education: An Introduction to Literacy and Teaching 0.5 Credit
This elective course will provide interested seniors with an opportunity to explore a career in education in today's schools, with an emphasis on literacy development and learning. Students will reflect upon their own educational experiences and participate in authentic classroom experiences on a weekly basis at an elementary school in Gorham. Students will learn about current educational issues, classroom instruction, teacher preparation, assessment measures, learning styles, classroom management, and the overall, rewarding career of working with students. This course will provide a glimpse at “the other side” of education and school, for students considering this career.
Prerequisites/Notes: Open to seniors; class limited to 10 students.

<table>
<thead>
<tr>
<th>Fine Arts</th>
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<td>1 credit required for Graduation</td>
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701 Art 1A 0.5 Credit
Art 1 A is an introductory course covering techniques in drawing (pencil, ink and charcoal), painting (tempera and watercolor), printing, and two-dimensional and three-dimensional design. Students will solve various design and drawing problems using line, shape, color, value, texture, and space. Included will be exposure to well-known artists and trends in art. Homework assignments will be given which relate to class activities. This course is open to grades 9-12 and to students of various art backgrounds.

703 Art 1B 0.5 Credit
This course will continue developing skills and techniques learned in Art 1 A. It will consist of more advanced drawing and painting problems as well as printmaking and sculpture projects. Artists and their work will be studied, and homework assignments will be given which relate to class activities.
Prerequisites/Notes: Art 1A or Department approval.

705 Art 2 1 Credit
This course is the first full year art course. The units of instruction and activity expand the design concepts and art principles established in Art 1 A/B into applications of expression and creativity. The student will draw, paint, sculpt and design in both two and three-dimensional form. A student's interest and motivation in art is the most important consideration in electing this course. The art experiences will continue the enrichment of each individual and correlate with the individual's goals, interests and abilities.
Prerequisites/Notes: Minimum grade of B in Art 1 A/B or Department approval.

720 Studio Art 1 Credit
This is a course designed for students who have a strong interest in art and an ability to work independently in a search for the development of skills, appreciation and understanding. Students will work on more advanced projects which may include a variety of drawing experiences, watercolors, acrylics, printmaking and sculpture problems. It will encourage and challenge the serious student and will require outside assignments as needed. Creative thinking and individual style will be emphasized in the completion of assignments. Art-related careers will be discussed as well as portfolio requirements for college application.
Prerequisites/Notes: Minimum grade of B in Art 1 A/B and Art 2 or Department approval.

725 Studio Plus 1 Credit
This is a fourth-year course intended for the highly motivated students who are seriously interested in the study of art. Projects will demand a high level of creative thought as well as an in-depth understanding of techniques and media. Emphasis will be placed on the execution and completion of projects, which are of a quality suitable for college. Students who are contemplating an art career will be guided in the development of the art portfolios.
Prerequisites/Notes: Minimum grade of B in Studio Art or Department approval.
730 Concert Band 1 Credit
Concert Band is open to all students in grades 9-12 who play a band instrument. Throughout the year, the ensemble covers a wide variety of quality band literature, performs several concerts, and competes at state-sponsored festivals. The band meets four days a week during school time. Band members are eligible to participate in area festivals and to audition for the All-State Concert Band or Orchestra. No audition is necessary to be a member of the concert band, but students must have prior experience on their instrument. Attendance at all performances is mandatory.

732 Jazz Band 0.5 Credit
Jazz Band is a small, instrumental group made up of students selected and auditioned from the band. The jazz band covers a wide range of advanced instrumental music, including dance band/big band arrangements of the 40's up through contemporary pop, rock, and jazz arrangements. Improvisation and ensemble playing techniques are also covered. The jazz band rehearses one evening per week. Attendance at all rehearsals and performances is mandatory.

736 Concert Choir 1 Credit
No prior experience necessary! Come learn to sing in a supportive environment where all abilities and experiences are embraced. Concert Choir is designed to develop students' personal independence, maturity, musical aptitude and vocal ability. Curriculum will be centered on carefully selected literature, composed specifically for that genre of ensemble. While this course is open to all GHS students regardless of prior experience, those unwilling or unable to commit to the required performances each semester should not consider joining. Students are responsible for providing some of the concert attire themselves.

740 Chamber Singers 1 Credit
The GHS Chamber Singers offers vocally/musically-advanced students the opportunity to perform at a collegiate level. Admission to the group is determined by audition. Besides demonstration of advanced vocal skills, other criteria for acceptance include: dedication, attitude, potential for growth, past performance and participation, and/or a recommendation from another vocal instructor. Required performance opportunities will be extensive, as will the demands on each student.
Prerequisites/Notes: Vocal Audition

742 Vocal Auditions Prep 0.5 Credit
This is a directed-study style course, open to all students in grades 9-12 who are enrolled in Concert Choir or Chamber Singers, who wish to audition for the District I Music Festival and/or All-State Music Festival. This is a lab where students will receive instruction on all aspects of the vocal music audition, as well as listen critically while other students perform, in order to provide their own input toward the improvement of each student's performance.
Prerequisites/Notes: Offered Semester 1, during student's lunch.

743 Recital Lab 0.5 Credit
This class is for students enrolled in Concert Choir or Chamber Singers who wish to begin studying voice in a more individual setting. The goal of the course is to give students the foundation to begin studying voice privately and to improve performance in the GHS Choirs.
Prerequisites/Notes: Offered Semester 2, during student's lunch.

750 Music Appreciation 0.5 Credit
Music Appreciation is the general music-based, entry-level course in music at GHS. It is designed for students who have a general interest in music but do not wish to perform. The class will cover everything from music history to the music industry, including movie music, musical critique, and composition. If you have any interest in music at all, you will find this class interesting and informative.

755 Music Theory 0.5 Credit
No prior experience required. Open to all students in grades 9-12. Through the use of class lecture, written activities,
ear-training activities, and the GHS Piano Lab, this course will acquaint the student with the major principles behind music and music writing. Emphasis will be placed upon theoretical applications of the learned skills.

756  Guitar Lab I  
Guitar Lab provides an introduction to playing chords and reading music on guitar with an emphasis on practice and rehearsal skills, through which students can eventually learn to play on their own. This class is for beginners only.  
**Prerequisites/Notes:** *Class limited to 12 students.*

757  Guitar Lab II  
A continuation of material learned in Guitar Lab I, this class covers advanced topics in rhythm and note reading, 12-bar blues, finger picking, pentatonic and blues scales, improvisation, and power chords.  
**Prerequisites/Notes:** *Successful completion of Guitar Lab I; class limited to 12 students.*

759  Percussion Ensemble  
There is no experience required to take this class! In percussion ensemble, students will learn to play various percussion instruments (including snare drum, bass drum, crash cymbals, xylophone, congas, etc.), while learning to read rhythms and how to perform with others.

760  Popular Music in America  
This is a class that will focus exclusively on the three main styles of music that defined America during the 20th century: Jazz, Folk, and Pop. Individual artists and events will be covered, along with a multitude of audio and visual examples, to demonstrate the Jazz styles of Ragtime, Dixieland, Swing, Blues, and Be-Bop, and the Pop styles of Rhythm and Blues, Folk, and Rock ‘n Roll.

766  Piano Lab  
No experience required! Learn to read music and play piano through the use of the Adult Keyboard Method. Individual keyboard stations allow students to move at a pace that is appropriate for their learning needs. This class is for beginners only.  
**Prerequisites/Notes:** *Class limited to 10 students.*

780  AP Music Theory  
This is an Advanced Placement class for juniors and seniors who successfully completed the semester Music Theory class and want to continue learning in this field. This is a very challenging class and is recommended for highly motivated musicians. Students will continue to learn about chords and ear training, but will also learn composition and analysis of music of the common practice period. Students that demonstrate a high musical aptitude may also be eligible.  
**Prerequisites/Notes:** *Successful completion of Music Theory, or permission from teacher.*

790  Public Speaking  
An introduction to the basic concepts, theories and principles of oral communication as applied to a speaking situation. The course develops competence in oral communication through performance and critical analysis of student skills in a variety of speaking formats. Audience analysis, content discovery, communication strategies, arrangement of ideas, the use of evidence and reasoning to support claims, language and style, voice and other delivery skills and ethical considerations will be explored in this course. Students will work as individuals and teams to create a variety of video projects that will include: news reports, interviews, commercials, characterizations, and ad-libbing segments.
In choosing a foreign language, it is best to have 3 or 4 years of a single language. Some students prefer to take 2 years of 2 languages, and this also is acceptable. Two years of one language is the minimum requirement for college preparation. There are colleges that do not require a foreign language for admission to some of their programs, but the logical learning sequences and the memory training that a student can obtain from taking a foreign language are difficult to duplicate in other high school courses.

610 French I
The objectives for this course are to acquire four (4) basic skills: listening, speaking, reading and writing. Class work varies to include repetition, dialogues, oral summaries, skits, culture study and simple conversation. Dialogues, written tests, quizzes, homework and class participation are required.

620 French II
French II continues the emphasis on the four (4) basic language skills. Additionally presented are readings of at least one short story, supplementary workbook study of grammar, and cultural identity through the use of the text with somewhat greater emphasis on oral improvement.

625 French III
French III focuses on the expansion of complex grammar construction, further development of conversational vocabulary and in-depth analyses of francophone culture. Excerpts of works by some French authors may be analyzed and discussed.

630 French IV
French IV focuses on literature, history and advanced grammar. Students will work to further develop and refine their reading, writing, and communication skills in French. Literary works by Moliere, Maupassant, Rabelais, Hugo, Sempe-Gosciny, and Perrault will be interpreted and analyzed. Students will frequently write responses to the literature being studied.

640 Spanish I
Objectives include participation and performance in each of the five skill areas: listening, speaking, reading, writing and culture. Class and homework include dialogues, verb charts and translations, oral summaries, and skits. Evaluation is based upon your participation, effort, and technical skill. Homework is a necessary part of the course. A notebook and personal dictionary are requirements for higher success.

645 Spanish I/II
Spanish I/II will cover the highlights of courses #640 and #650 in one academic year. This course is designed for students with previous background in language study such as Latin I & II, French I & II, or by permission from the department. Assignments are laid out to help the student advance beyond the ‘basic level’ of communication. The class will move at a rapid pace. Homework load may be heavy. This course is not for students who failed Spanish I, nor is it an option for students who have already received a credit for Spanish I. Course offering depends on enrollment and staffing.

650 Spanish II
Spanish II furthers the development of communicative skills. Additional complexity in verb and grammar content is explored through the use of class activities, homework, and assigned projects. Spoken skills are emphasized prior to taking Level III.

655 Spanish III
Spanish III reviews all previous work in verbs, grammar and continues building vocabulary. Students begin to write their
own conversations, rather than memorizing pre-written materials. Supplementary workbook continues in-depth study of grammar, verbs, and culture.

660 Spanish IV  
1 Credit
Spanish IV will focus on literature, art, culture and advanced grammar. Reading includes Volumes 1 and 2 of Don Quixote, possibly others. Also stressed will be conversation and oral presentations.

663 Spanish V  
1 Credit
This course is offered for students who have completed Spanish IV. Course offering depends on enrollment and staffing.

665 Latin I  
1 Credit
This introductory course aims to provide students with an elementary comprehension of the written Latin Language and an introduction to the history and culture of the Ancient Romans. Students will learn Latin vocabulary along with its English derivatives, basic sentence structure, and elementary grammar. Using the well-established Jenney Latin series, the students begin to read large passages of Latin even during the early months of the course. In the first year students will also commit to memory the noun and verb paradigms, which provide a basis for further study of the language.

670 Latin II  
1 Credit
This course completes the second half of an introduction to the core grammar necessary for competent comprehension of the Latin language. It also focuses on the history of the fall of the Roman Republic and its important figures as recounted in Livy's histories. More challenging and lengthy Latin passages introduce new grammar while reviewing the basic forms of Latin I.

675 Latin III  
1 Credit
This course begins with a comprehensive review of Latin grammar followed by a careful translation of Livy and selected poems of Vergil, Catullus, and Martial, inter alios. At the end of this course, students will translate passages from the writings of Julius Caesar. The class will continue with translating selections from the Roman poet Ovid. In addition, the course will encompass a study of the rhetorical techniques and poetic figures employed by ancient writers.

680 Latin IV A.P. Caesar and Vergil  
1 Credit
This course is designed to prepare students to take the Advanced Placement exam in Latin literature with a focus on Caesar's De Bello Gallico and Vergil's Aeneid. The exam will be administered in May. Students will be tested on their ability to translate literally, to analyze, and to interpret both texts as well as scan the meter of the dactylic hexameter verse used by Vergil. Students will practice sight-reading and translating literally so that their translations not only are accurate and precise, but also make sense in English. Other specific skills that will be required for the AP examination include the ability:

- To write a literal English translation of a Latin passage on the syllabus
- To explicate specific words or phrases in context
- To identify the context and significance of short excerpts from texts listed in the chosen syllabus
- To identify and analyze characteristic or noteworthy features of the authors’ modes of expression, including their use of imagery, figures of speech, sound effects, and metrical effects (in poetry only), as seen in specific passages
- To discuss particular motifs or general themes not only suggested by passages but also relevant to other selections
- To analyze and discuss structure and to demonstrate an awareness of the features used in the construction of a poem or an argument
- To scan the meters specified in the syllabus
**Health**

0.5 credit ("Health Education") required for Graduation

800 Health Education (required for Graduation)

This course is designed to examine the many risk behaviors that teenagers may encounter during adolescence. Through the course, students will learn how to maintain, reinforce, and enhance their personal health, as well as develop lifelong thinking skills related to choosing healthy behaviors. Students will have the opportunity to assess their lifestyle and choices through various class activities and learn how to make informed, educated decisions about health. Areas of study will include personal and community health, substance abuse and addiction, chronic and infectious diseases, nutrition, growth and development, sexual health, and basic anatomy and physiology of some organ systems.

Prerequisites/Notes: Required for graduation.

840 Intro to Sports Medicine (elective)

This course is designed for students in grades 11 and 12 with an interest in fields such as athletic training, physical therapy, orthopedic medicine, fitness, exercise physiology, and strength and conditioning. The coursework will focus on the following areas of instruction: First Aid and CPR, emergency procedures, anatomy and physiology, basic prevention, evaluation and treatment of athletic injuries, as well as an investigation into various sports medicine careers. The course will provide students with an opportunity to examine the musculoskeletal system of the human body, as well as learn basic techniques for preventing and treating common athletic injuries.

Prerequisites/Notes: Biology and Health Education. Juniors and Seniors only. Offered Semester 2.

**Mathematics**

3 credits required for Graduation, specific sequence required

210 Algebra 1

This class is for students who would benefit from some review of previous skills while learning the concepts of Algebra I. Topics include simplifying expressions; solving equations and inequalities; creating and graphing linear, quadratic, and exponential functions; solving systems of equations and inequalities; and statistics. Students will maintain a notebook, complete classwork and daily homework assignments, and participate in classroom activities; they will be graded on homework, quizzes and tests.

Prerequisites/Notes: Recommendation of 8th grade teacher.

215 Algebra 1 Advanced

This class is designed for freshmen who excelled in eighth grade math and who would like a challenging pace while learning the concepts of Algebra I. Topics include simplifying expressions; solving equations and inequalities; creating and graphing linear, quadratic, and exponential functions; solving systems of equations and inequalities; and statistics. Students will maintain a notebook, complete classwork and daily assignments, and participate in classroom activities; they will be graded on homework, quizzes, and tests.

Prerequisites/Notes: Recommendation of 8th grade teacher. Minimum grade of B+ in 8th grade math.

220 Geometry

This course follows the standard Algebra I course, and is intended for sophomores and juniors. Topics include spatial reasoning, angles and lines, triangles, polygons, congruence, similarity, geometric reasoning, and triangle trigonometry. Students will maintain a notebook, complete classwork and daily homework assignments, and participate in classroom activities; they will be graded on homework, quizzes, and tests.

Prerequisites/Notes: Successful completion of Algebra 1.
225 Geometry Advanced 1 Credit
This advanced course follows the Algebra I Advanced course, is intended for freshmen and sophomores, and emphasizes constructing extensive proofs. Topics include spatial reasoning, angles and lines, triangles, polygons, congruence, similarity, geometric reasoning, and triangle trigonometry. Students will maintain a notebook, complete classwork and daily homework assignments, and participate in classroom activities; they will be graded on homework, quizzes and tests. 
Prerequisites/Notes: Successful completion of 8th grade Algebra 1, Algebra 1 Advanced, or an A in Algebra I with teacher recommendation.

240 Algebra 2 1 Credit
This course follows the standard Geometry course and is intended for juniors and seniors. Topics include exponential, logarithmic, radical, rational, polynomial, and trigonometric functions; systems of equations and inequalities, probability and statistics; and matrices. Students will maintain a notebook, complete classwork and all homework assignments, and participate in classroom activities; they will be graded on homework, quizzes and tests. 
Prerequisites/Notes: Successful completion of Geometry.

245 Algebra 2 Advanced 1 Credit
This challenging course is intended to follow the Geometry Advanced course, and is for sophomores and juniors. Topics include exponential, logarithmic, radical, rational, polynomial, and trigonometric functions; systems of equations and inequalities; matrices; probability and statistics; sequences and series; and linear programming. Students will maintain a notebook, complete all classwork and homework assignments, and participate in classroom activities; they will be graded on homework, quizzes and tests. 
Prerequisites/Notes: Successful completion of Geometry Advanced, or an A in Geometry with teacher recommendation.

248 Financial Algebra 1 Credit
This course uses practical algebraic and numerical approaches to solve business and personal-finance problems. Numerous topics from Algebra 1 and Algebra 2, as well as selected topics from Pre-Calculus, are covered in financial contexts such as taxes, insurance, banking, investing, retirement, small-business ownership, home ownership, auto ownership, and consumer credit. Students will be graded on homework, class participation, quizzes, and tests. 
Prerequisites/Notes: Successful completion of Algebra 2.

249 Financial Algebra Advanced 1 Credit
This course uses more advanced mathematical approaches to solving financial problems in business applications, public policy, personal finance, and everyday life. Emphasis is placed on creating appropriate mathematical models, solving problems using technology, verifying and correctly interpreting the solutions, and clearly presenting the results. Spreadsheets are used extensively (no prior experience necessary), and students will be graded on homework, class participation, quizzes, and tests. 
Prerequisites/Notes: Successful completion of Algebra 2 Advanced, or an A in Algebra 2 with teacher recommendation.

250 Pre-Calculus 1 Credit
This course is a study of functions, trigonometry, and selected other topics that will prepare students for Calculus. Topics include transformations of graphs of functions, circular trigonometry and trigonometric identities, conic sections, matrices, complex numbers, and solving equations and inequalities involving polynomials, roots, powers, exponentials, logarithms, and absolute values. Grades will be based on homework, quizzes, and tests. A TI-83 or -84 graphing calculator is highly recommended.
Prerequisites/Notes: Successful completion of Algebra 2.

255 Pre-Calculus Advanced 1 Credit
This challenging course is an intensive study of functions, trigonometry, and selected other topics that will prepare
students for AP Calculus. Topics include transformations of graphics of functions, circular trigonometry and trigonometric identities, conic sections, matrices, complex numbers, and solving equations and inequalities involving polynomials, roots, powers, exponentials, logarithms, and absolute values. Effective problem-solving, sound mathematical reasoning, and clear communication of ideas will be emphasized. Students will maintain a notebook, and will be graded on homework, quizzes, and tests. A TI-83 or -84 graphing calculator is highly recommended.

**Prerequisites/Notes:** Successful completion of Algebra 2 Advanced, or an A in Algebra 2 and teacher recommendation.

**260 Calculus**
1 Credit
This is an introductory calculus course covering functions, limits, derivatives, antiderivatives, integrals, and applications. Emphasis is on learning techniques and key concepts of calculus and applying them to solve problems, while reviewing Pre-Calculus topics. A TI-83 or -84 graphing calculator is required, and grades are based on homework, quizzes, and tests. Students have the option of earning college credit for successful completion of the course through USM’s ASPIRE Program.

**Prerequisites/Notes:** Successful completion of Pre-Calculus.

**265 AP Calculus**
1 Credit
This challenging course covers limits, derivatives and their applications, antiderivatives, differential equations and slope fields, Riemann sums, and applications of definite integrals. Problems and concepts are approached analytically, graphically, and numerically, and key theorems such as the Fundamental Theorem of Calculus are studied in depth. Extremely strong algebra skills are needed for this demanding course, and grades are based on homework, tests, and quizzes. A TI-83 or -84 graphing calculator is required. Students are expected to take the AP Calculus AB exam in May, and have the option of earning college credit through USM’s ASPIRE Program.

**Prerequisites/Notes:** Successful completion of Pre-Calculus Advanced, or an A in Pre-Calculus with teacher recommendation.

**273 Statistics**
1 Credit
This course gives students the foundational concepts and goals of descriptive and inferential statistics. Topics include data collection and sampling techniques, frequency distributions and graphs, data analysis, probability, discrete and normal distributions, confidence intervals, hypothesis testing with one and two samples, correlation and regression, and Chi-square tests. A TI-83 or -84 graphing calculator is required, and grades will be based on homework, class participation, quizzes, and tests. Students have the option of earning college credit for successful completion of the course through USM’s ASPIRE Program.

**Prerequisites/Notes:** Successful completion of Algebra 2.

**275 AP Statistics**
1 Credit
This challenging course covers the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics include exploration of data, describing patterns, sampling techniques, planning and conducting studies, anticipating patterns, exploring random phenomena using probability and simulations, statistical inferences, estimating population parameters, and testing hypotheses. A TI-83 or -84 graphing calculator is required, and grades will be based on homework, class participation, quizzes, and tests. Students are expected to take the AP Statistics exam in May, and have the option of earning college credit through USM’s ASPIRE Program.

**Prerequisites/Notes:** Successful completion of Algebra 2 Advanced, or an A in Algebra 2 with teacher recommendation.

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**Physical Education**
1 credit required for Graduation

In keeping with the Gorham High School philosophy and goals, the Physical Education Department believes that physical education is an integral part of the total educational process. Physical fitness is a lifelong endeavor, which begins at the
adolescent age when students begin to make choices. The physical education program is designed to increase social interaction, create better understanding of self and personal physical health habits, as well as encourage students to make choices in their activities.

Students must earn a full credit in Physical Education in order to graduate. The first course in the Gorham High Physical Education program will be the PE 1 course. Successful completion will result in earning .5 credit. Students earn the remaining .5 credit by taking PE 2 for a half year at some other point in high school.

810 PE 1
The focus of the class is on individual fitness. Students will learn and apply the principles of training as they develop their own fitness goals. All students will establish baseline fitness scores in muscle strength, muscle endurance, cardio-respiratory endurance, flexibility and body composition using the Presidential Fitness Challenge as an age appropriate baseline. Students will apply their learning as they develop their own personal fitness plan.

Prerequisites/Notes: Recommended for freshman. Required for Graduation.

820 PE 2
The program allows students to get more in-depth information and skill practice on various activities. Students are encouraged to participate in daily physical activity. Emphasis is on the realization that personal health is essential in their adult lives. Every effort is made to modify the class to meet individual needs and play games at the adult level.

Prerequisites/Notes: PE 1. Required for Graduation.

Science
3 credits required for Graduation, specific sequence required

Each course listed below is designed to educate students in accordance with the NextGeneration Science Standards. Students will learn and be evaluated on science content core ideas, cross-cutting concepts (such as identifying patterns, cause and effect, analyzing systems, and relating structure and function), and science practices (such as evaluating models, problem-solving, asking questions and constructing explanations using evidence).

310 Earth Space Science
This yearlong, entry-level science course will focus on the study of Earth’s make-up. Topics covered will include: 1) geology and the forces that help form the solid earth as we know it; 2) the oceans and their importance to mankind; 3) the atmosphere with its ever-changing cycles; 4) the mysteries of the universe and Earth’s place in space; and 5) how the activities of civilization threaten the natural environments in which we live. Many of the lab experiences in this program will include observations and interpretations of the natural phenomena around us. Daily homework, a notebook, frequent quizzes and tests, along with reports and demonstrations, will be required. A more rigorous Honors Challenge will be an optional component for students enrolled in this course.

330 Biology
Important biological fundamentals will be covered that include the nature of science, ecology, biochemistry, cell structure and function, genetics, species adaptation and classification. Classes are composed of lecture, hands-on activities, laboratory experiences, and research projects. Assessments include tests, quizzes, lab reports, homework, and class work, student conduct, effort, a midterm and final exam.

Prerequisites/Notes: Successful completion of Earth Space Science.

335 Biology Advanced
This course is designed to cover the important biological principles in depth, and at an advanced pace. Students enrolling in this course must have shown exceptional ability in Earth Space Science, have a recommendation from their Earth Space Science teacher, and have a sincere commitment to undertake an accelerated program of study. Grades will be
based on homework assignments, lab reports, and frequent tests and quizzes.

Prerequisites/Notes: Minimum grade of 93 in Earth Space Science.

380 AP Biology 1 Credit
This demanding senior course will offer an in-depth survey of important biological principles. New advances in biology will be incorporated into the course, and time will be spent preparing to take the AP Biology exam in May. Students enrolling in this course must complete a summer assignment prior to the start of the course. Grades will be based upon lab reports, tests, and quizzes. This is a lab-intensive course, with at least 25% of class time spent in the laboratory. Much of the course content must be covered and studied independently by the student; therefore, candidates must demonstrate strong initiative and the ability to read and comprehend college-level text.

Prerequisites/Notes: Minimum grade of 93 in Biology and Chemistry.

341 General Chemistry 0.5 Credit
This lab-based course introduces the student to chemistry in everyday life. Topics include scientific reasoning, classification of matter, how matter changes, structure of the atom, atomic models, the elements, the periodic table, compounds, and chemical reactions.

Prerequisites/Notes: Earth Space Science and Biology. Offered Semester 1. This course should be taken consecutively with General Physics Semester 2.

345 Chemistry I 1 Credit
Chemistry is offered to students in grades 11 and 12 who have successfully completed Biology. In this course, students' skills in scientific reasoning and problem-solving are developed simultaneously. The course emphasizes atomic and molecular theory and uses laboratory experiences to enhance the students' learning. A fundamental knowledge of chemistry is essential for further study in science, and it has direct application to people's lives. Grades are based upon homework, quizzes, tests, laboratory reports, projects and cumulative exams.

Prerequisites/Notes: Minimum grade of C in Biology, and successful completion of Algebra I and Geometry are required. Concurrent enrollment in Algebra II is strongly recommended.

340 Chemistry I Advanced 1 Credit
This rigorous course is designed for juniors who will be concurrently enrolled in Pre-Calculus. Topics covered will include atomic theory, periodicity, nuclear chemistry, chemical compounds, chemical reactions, the mole concept, stoichiometry, gas laws, kinetic theory, and chemical solutions.

Prerequisite: Grade of B or better in Advanced Biology and concurrently enrolled in Pre-Calculus, or approval of the Chemistry I Advanced teacher, in conjunction with the current Biology teacher.

343 AP Chemistry 1 Credit
This demanding senior course will offer an in-depth survey of important chemical principles. It will be taught at a college introductory chemistry level with extensive time being spent preparing to take the AP Chemistry exam in May. Students enrolling in this course must complete a summer assignment prior to the start of the course and will be assessed on this assignment during the first week of school. Grades will be based upon tests, quizzes, lab reports, and homework. This is a lab-intensive course, with at least 25% of class time spent in the laboratory. Much of the course content must be covered and studied independently by the student; therefore, candidates must demonstrate strong initiative and the ability to read and comprehend college-level text. Advanced math skills will be required.

Prerequisites/Notes: A grade of B or better in Chemistry I Advanced or approval of the Chemistry I teacher.

Electives

351 General Physics 0.5 Credit
This lab-based course introduces the student to physics in everyday life. Topics include how energy and matter interact, mechanics, Newton’s Laws, momentum, work and power, forces in fluids, thermodynamics, waves, sound, and light.
**Prerequisites/Notes:** Earth Space Science and Biology. Offered Semester 2. This course should be taken consecutively with General Chemistry Semester 1.

### 365 Anatomy and Physiology
This yearlong study will introduce students to human anatomy and physiology, with emphasis on the systems of the body and how they are interrelated. The areas covered will include medical terminology, cell and tissue structure, and the 11 systems of the human body (integumentary, skeletal, muscular, nervous, endocrine, circulatory, lymphatic, digestive, respiratory, urinary and reproductive). Laboratory work will be required, including many organ and comparative anatomy dissections. This course is appropriate for seniors pursuing a career or post-secondary education in the health sciences or related fields.

**Prerequisites/Notes:** Successful completion of Biology and Chemistry.

### 370 Physics
This course gives the student an understanding of physical phenomena from a mathematical viewpoint. The analytical skills taught in this course are essential for students planning to enter engineering, science, or math programs in college. Major areas of study include motion, mechanics, electricity and magnetism, heat and work, light and sound, atomic theory and the nature of forces. Students are provided with opportunities to develop their ability to interpret and analyze data and are urged to solve problems by reasoning rather than by rote memorization.

**Prerequisites/Notes:** Minimum grade of C in Chemistry and Algebra 2.

### 375 Advanced Physics
Advanced Physics is a demanding college preparatory course intended to give the student an understanding of the physical phenomena from a mathematical viewpoint. Major areas of study will include motion, mechanics, electricity and magnetism, heat and work, light and sound, and the nature of forces. Strong Algebra and Trigonometry skills are required to be successful in this course.

**Prerequisites/Notes:** Minimum grade of A in Pre-Calculus or teacher recommendation.

### 385 AP Physics (pending budget decisions)
AP Physics 1 (Algebra-based) is offered to students entering their 3rd year. Physics 1 is the first of the two-course (2-year) AP Physics program. AP Physics 1 (Algebra-based) is the equivalent of a first-semester college course in Algebra-based physics, but it is designed to be taught over a full academic year to enable AP students to develop deep understanding of the content and to focus on applying their knowledge through inquiry labs.

The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It also introduces electric circuits. Instructional time devoted to laboratory investigations is 25 percent of the course. Investigations emphasize student-centered inquiry instruction and learning. Inquiry investigations foster student engagement in the practices of science through experimenting, analyzing, making conjectures and arguments, and solving problems in a collaborative setting, where students direct and monitor their progress.

**Prerequisites/Notes:** The AP Physics 1 course is designed to be taught over the course of a full academic year and may be taken as a first-year physics course with no prior physics course work necessary. Students should have completed Geometry and be concurrently taking Algebra II (or an equivalent course) and Chemistry (if a third-year student). Although the Physics 1 course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics 1 course itself.

Third-year students taking this course should also plan on taking AP Physics 2 during their senior year in order to take the exam.

AP Physics 2 (Algebra-Based) Will be offered in 2015-16 to those that successfully complete AP Physics 1 in 2014-15.
331 AP Environmental Science  
**1 Credit**
AP Environmental Science is a yearlong, lab-based college-level course designed to provide students with the scientific principles and methodologies required to understand interrelationships of humans and the natural world. Students will be required to identify and analyze environmental problems, both natural and human-made, in order to evaluate the relative risks associated with these problems, as well as examine alternative solutions for resolving or preventing them. Upon completion of this class, student shave the option of taking the AP Environmental Science exam in May to earn college credit.

**Prerequisites/Notes: Successful completion of Earth Space Science, Advanced Biology, and at least one year of Algebra.**

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**Social Studies**

**3 credits required for Graduation, specific sequence required**
All students must earn credit in World History I, American Studies or AP US History or American History 10, and World History II or AP Modern European History.

It is the goal of the department that students end their three required years of Social Studies with a solid understanding of the foundations of civilization and geography, the historic and economic roles of the United States, and the philosophical worldviews that make up contemporary international relations, thereby concluding their studies ready to become global citizens. Senior electives offer additional opportunities for students to develop these understandings in particular areas of focus.

**405 World History I**  
**1 Credit**
Students in this class will apply the skills of a historian while examining the development of civilizations from prehistoric times to the Enlightenment. Aligned with the Maine Learning Results, World History I class has a particular focus on geography skills, with basic economic concepts and the roles of government taught within the larger historical context. While emphasis is on the western hemisphere, study will be globally inclusive to help students understand the historical factors that led to the colonization of the Americas, and in preparation for the continuing examination of World History as juniors.

**Honors Challenge:** While the World History 1 curriculum is designed to provide a rich and rigorous academic experience for all students, some 9th graders may wish to expand their historical knowledge and skills even further. For those students, we offer an “Honors Challenge” program that provides opportunities to enrich and deepen the student's understanding of history and to gain further practice at specific skills, by completing a series of assignments, projects, and assessments. Honors Challenge is particularly appropriate for students who plan to take Advanced Placement U.S. History as sophomores. Successful completion of the program will lead to an “Honors” designation on the student's academic transcript.

**425S American Studies**  
**2 Credits**
This is a college prep-level course taken in conjunction with American Studies Social Studies. Students will have opportunities to engage in interdisciplinary learning combining American Literature and U.S. History. The two credits for this course must be earned simultaneously, even though students will receive separate Social Studies and English grades. The English texts will be primarily novels, plays, short stories, and poems by American authors, but will also include non-fiction pieces. Most of the texts will be thematically and/or chronologically connected to what students are covering in Social Studies. Major works of literature may include *The Absolutely True Diary of a Part-Time Indian*, *Our Town*, *The Great Gatsby*, *To Kill a Mockingbird*, *The Things They Carried*, and *Feed*. The writing curriculum will also focus on developing students’ writing skills, focusing primarily on analytical writing, but also on narrative and research pieces. The course should help students to read progressively more complex materials, write for academic purposes, process their own ideas, have the knowledge base to become active citizens, and prepare to be successful in their future educational pursuits.

**Prerequisites/Notes:** *World History I or equivalent.*
420 American History 10 1 Credit
Students in American History will learn the story of the United States of America, from its foundation to its role in current world affairs. Students will also become proficient at interpreting and constructing timelines, graphs and charts, recognizing bias and developing understandings through the completion of projects.

Prerequisites/Notes: Recommendation of freshman academy teachers and administrative approval.

430 AP United States History 1 Credit
Open to sophomores and seniors, this class is designed to provide students with the factual knowledge and analytical skills to deal critically with the issues and materials of American history. Therefore this class requires intensive reading and writing as well as frequent seminar-style discussions.

Prerequisites/Notes: Sophomores require recommendation of Freshman Academy teacher.

440 World History II 1 Credit
Drawing on the content and skills learned in freshmen World History I and in sophomore American History, World History II continues the intensive study of historical connections, economic relationships, governmental practices and socio-cultural effects from the 19th through the 21st Centuries. A particular focus is on the motivations behind political, economic and socio-cultural changes, through an examination of philosophical worldviews, in an effort to develop students’ understandings of the complexity of the present international community. Additional emphases include researching, constructing a country folder and role-playing in a Model United Nations simulation experience.

Prerequisites/Notes: World History I and American Studies or equivalent.

480 AP Modern European History 1 Credit
This yearlong course is open to Juniors and Seniors and, as a collegiate level class, is presented in a lecture-discussion-seminar based format. Beginning with the Renaissance and ending with the present day, it covers European and world history topics in significant depth in preparation for the AP Modern European History exam. Students taking the course must be able to maintain a rigorous pace and can expect a significant amount of textbook and supplemental readings. An emphasis is also placed on advanced analytical writing, and written essays form a large part of the assessments. A summer reading of material is necessary for course.

Prerequisites/Notes: World History I and American Studies or equivalent.

Electives

450 Human Nature & Social Problems 0.5 Credit
This class draws from several disciplines, primarily philosophy and psychology, to examine a series of enduring questions about the nature of human beings and the recurring problems societies face. Students read excerpts from a variety of thinkers and traditions, including Plato, the Bible, Descartes, Freud, Marx and others to gain an understanding of some historically influential answers to these questions. Students also analyze current articles and films to consider how issues of human nature are addressed in contemporary culture.

460 Economics 0.5 Credit
In this class, students will further investigate core elements of economics including economic systems, supply and demand, market structures, the labor market, types of business organizations, and the role government plays in the economy. Students will also learn the basics of personal finance such as budgeting, paying for college, investing, and the drawbacks.

465 Women’s History 0.5 Credit
Following completion of this class, students will have a better understanding of women’s roles and conditions in the world, and will better perceive anthropological, sociological, philosophical, theological and economic elements in the creation of these conditions. Classroom discussions hinge upon a student commitment to a high level of reading and verbal participation. Additional activities include fieldwork, crafts and the creation of two personal interest projects.

470 The Holocaust 0.5 Credit
This course looks at the history of the Holocaust, the destruction of European Jewry during World War II, from many different perspectives. Students will analyze their own values and beliefs as they learn about and come to understand the decisions and actions of victims, victimizers, rescuers/resisters, and bystanders. Finally, students will investigate other genocides in order to complete a comparison with the Holocaust and determine common causes of genocide. Classroom discussions hinge upon a student commitment to a high level of reading and a willingness to articulate and support personal opinions. Priority given to Seniors.

Prerequisites/Notes: World History II or equivalent. Open to Seniors (priority) and Juniors.

475 Contemporary History/Ethics in Film
This class will use films and documentaries to examine world events. Along with spotlighting particular events during the last two decades of the 20th century and the beginning of the 21st century, and connecting these to larger historical themes, students will inquire if film is a legitimate, historical source. Students will be asked to fulfill a variety of writing assignments that require reading, research and critical analysis. Students will be asked to actively participate in class discussions. Students will also be asked to evaluate their learning and contribute to classroom decision-making. Lastly, this class will be completed electronically. A signed parental permission slip to watch some films and documentaries is required.

Prerequisites/Notes: Seniors only.

478 Comparative Government & Politics
The course in Comparative Government and Politics introduces the student to fundamental concepts used in political science and government. Studies include the processes and outcomes of political systems of different nations and regions, governmental theories and structures, and modern world issues that impact the same. Each quarter will focus on a mix of theory and practical application in a different region of the world, with a mix of readings, short papers, projects, and seminar discussions. Additionally, all students in the course will assist in a leadership capacity for the Model United Nations requirement of all Junior World History II classes, generating topics, researching and preparing topic and background guides, and chairing committees.

Prerequisites/Notes: Seniors only.

490 The American Civil War
Following this course, students will have a better understanding of the political, economic, social and military impact of the Civil War on the United States. Special focus will be given to Maine’s contributions, both militarily and on the home front. Students will be asked to complete a variety of assignments, ranging from analyzing primary sources to a self-directed research assignment on a topic of choice. Classroom discussions and assignments hinge upon student commitment to reading and a willingness to participate in classroom discussion.

Prerequisites/Notes: American Studies and/or AP US History.

491 Modern Chinese History & Culture
This course will focus on the cultural, economic, and political development of China from the final years of the Qing Dynasty to the present. The coursework will explore traditional Chinese customs, political history, and the modern economic powerhouse that China has become. The course will also include the use of the Rosetta Stone Mandarin program during class time. This course will require students to commit to a high level of reading and verbal participation.

Prerequisites/Notes: World History I.

Technology
1 credit required for Graduation

500 Introduction to Technology
Introduction to Technology is a team-taught class which will incorporate career preparation skills such as resume development, filling out applications and interviewing techniques, along with exposures to a variety of technological
processes and fields. Required areas of study will include: Materials Processing (woods, metals, plastics); Communications (mechanical drawing, CAD); Electronic Media (financial literacy, digital media).

505 Back to Basics 0.5 Credit
This is a hands on lab class. Areas of instruction will be project based and include the safe use of hand and power tools traditionally used in careers involving woodworking, metalworking, residential construction, and tools often used for common home repairs. Students enrolled in the class will be required to use a variety of materials to build small projects which are appropriate for the time constraints of the semester class. (Due to the cost of materials, students will also be required to purchase materials for individual projects that go above and beyond the scope of the class projects.)

Prerequisites/Notes: Open to students in grades 9 -12.

517 Architectural Drawing/Residential Design 0.5 Credit
Students will be introduced to residential home design and basic construction techniques. They will complete a set of sample plans of a basic structure. They will then complete a set of house plans for a home which they design. This course is designed to give the student a basic knowledge of architectural structures, history and rendering techniques. Students will build a model of their design from their plans.

Prerequisites/Notes: May be used as a Fine Arts elective.

530A Pre-Engineering A 0.5 Credit
Pre-Engineering A is designed for the student who has interest in some form of engineering or technical field. The class will incorporate science, math, and physics concepts used to solve technical problems. In addition, students will be exposed to introductory drawing techniques necessary to develop sketches, orthographic and isometric drawings. The class will concentrate on a systematic approach to design and problem-solving used by engineers. Following instruction on the safe use of tools and equipment, students will work in the materials lab to complete activities which will investigate: mechanical linkages, simple machines, strength of materials and transportation.

530B Pre-Engineering B 0.5 Credit
Pre-Engineering B is designed around the world of control. The class will be exploring how robotics works. Students will learn how to design robotic systems utilizing programming languages and sensors. Students will build robots of their own design using current technology and electronics (LEGO Mindstorms, Boe-Bots, and PLCs) to complete problem-solving challenges to meet design criteria.

Prerequisites/Notes: It is NOT a requirement to take Pre-Engineering A before B.

551 Sustainability Studies -- Ensuring a Healthy Planet for Future Generations 0.5 Credit
This class will provide the skills, knowledge, and preparation for students to understand and address the environmental, social, political, economic and ethical issues related to the transformation of our current societies to ones that are sustainable. The class will integrate principles and methodologies from social sciences, natural sciences, and humanities. During the class we will explore local, national and global issues. Class participants will get involved in research and “hands on” activities that will contribute to real change!

Prerequisites/Notes: Open to students in grades 10-12.

540 Graphic Arts I 0.5 Credit
This course will emphasize principles of design, and methods of printing such as screen, lithography, and block. Students will be able to demonstrate and explain their design work as they study and experiment with a variety of printing processes. Students will also be introduced to traditional photography through the use of pinhole cameras. During the course the students will be exposed to a number of technological methods of image generation and reproduction such as scanning, desktop publishing and digital cameras. Application of these skills will be required. (A Lab Fee will be assessed for projects beyond regular classroom projects.)

Prerequisites/Notes: May be used as a Fine Arts elective.
In this class, students will do a study of 35mm photography and the graphic arts industry. They will explore career opportunities as they study more technical methods of copy preparation and the organizational steps in the processes of lithography and screen-printing including multi-color, halftones and critical registration. Students will also be involved in a number of projects requiring them to work with “customers” to produce a specific graphics product. (A Lab Fee will be assessed for projects beyond regular classroom projects.)

*Prerequisites/Notes: Graphic Arts I. May be used as a Fine Arts elective.*

This class provides an introduction to digital multimedia development and implementation with an emphasis on electronic still imaging. Topics covered include; Adobe Photoshop, introduction to basic web page design, elements of good design and layout, digital image creation and manipulation, combining a series of image elements into a single composition and, if time allows, the incorporation of audio, video, and animated components in web-based multimedia. Students will learn to use digital imaging technology such as digital cameras and scanners to capture, manipulate, display, and print images. Emphasis will be placed on learning how to use Adobe Photoshop, a digital imaging program that is used by digital imaging professionals. After introductory lessons students will plan for and create a series of digital media projects. Students can also access state of the art colored printing technology to make “photo quality” color prints of their work.

*Prerequisites/Notes: May be used as a Fine Arts elective.*

In this course students will learn how to operate and use portable camcorders, Non Linear Digital editing equipment, video switchers, character generator software, and sound and lighting boards. Students will practice camera movements, identify elements of good composition, and learn about the art of video making. Throughout the course students will work on individual and group video projects. We will also discuss media and how it affects our society and explore “Media Literacy - the ability to understand and evaluate all the symbol systems of a society and to access, analyze, evaluate and produce communications in a diversity of forms.” Strong emphasis will be placed on developing critical viewing skills both technical and conceptual. Students will be required to purchase two digital mini DV tapes for this class.

*Prerequisites/Notes: May be used as a Fine Arts elective.*

This class is designed for those students who want to learn how to build an effective web site but who do not want to learn about the complicated code that is often used to build sites. You will learn how to: Purchase your own domain name; purchase your own web space (web hosting service); set up your web hosting service; move files from your computer to the web server; use Adobe Photoshop to create beautiful graphics for your web site; use Adobe Dreamweaver web page building software to create your web site. (Purchasing a domain name and hosting service is not a requirement for the course; we are simply going to show you how!) Throughout the class, you will build several sites that will incorporate a variety of text and media. The emphasis will always be on effective web page design. The look of the site and the functionality of the site are equally important.

Cooperative Work Experience is designed to help students develop the necessary skills to gain employment and be successful in a job. The course is based around WorkReady which is a 60-hour “soft skill-based” training program. This course was created by the Maine Department of Education in partnership with Maine business leaders. For more specific information about WorkReady visit the website at [http://www.workreadyforme.org/](http://www.workreadyforme.org/) The coursework focuses on development of “soft skills” for the workplace, self-assessment, employability and career development skills. The course also features several guest speakers from area businesses who share their experience from their own careers, as well as knowledge of the workplace. During the second semester, students are released early from school 3 days a week to work for their employer. Students must work at least 10 hours a week during the second semester in order to receive 2 credits.
Advanced Technology Courses

These advanced classes can be scheduled for any teaching period that Mr. Roy has extra workstations open. There are a total of 24 workstations in the Digital Media Lab. For example, if a period 3 Digital Media class has 22 students, two workstations would be available for a student wishing to take any of the advanced classes that are listed below.

523 Advanced Digital Media
This course will allow students to further explore advanced digital media techniques using digital cameras, scanners, and a variety of imaging software. Emphasis will be placed on learning how to use advanced features of Adobe Photoshop. Students must be highly motivated and self-directed!
Prerequisites/Notes: Permission of teacher and completion of Digital Media. May be used as a Fine Arts elective.

524 Advanced Television Production
This course will allow students to further explore advanced TV Production. The student will work on a series of independent video productions. Students must be highly motivated and self-directed.
Prerequisites/Notes: Permission of teacher and completion of TV Production. May be used as a Fine Arts elective.

527 Advanced Web Page Design
This course will allow students to further explore Web Page Design. The student will work on a series of independent Web page projects. Students must be highly motivated and self-directed.
Prerequisites/Notes: Permission of teacher and completion of Web Page Design. May be used as a Fine Arts elective.

OTHER PROGRAMS OF STUDY

ALTERNATIVE EDUCATION

At Gorham High School, we offer multiple pathways for students to achieve success. The goal of Alternative Education at GHS is to guide students to graduation by providing academic and social/emotional supports.

BRIDGES (Grade 9)
(Building Relationships, Increasing Determination, and Good Experiences in School)

The BRIDGES Program is an exciting option for 9th grade Gorham High School students. BRIDGES is an alternative education program created to provide a small class size, close teacher relationships, and individualized instruction. Coursework is created to be practical, hands-on, project based, experiential, and community oriented. Each year, a small group of incoming 9th grade students is selected for the BRIDGES Program. Students are chosen because it is anticipated that they will be more successful with increased supports and an alternative education environment. The BRIDGES Program was created specifically for these students, to provide them with an innovative way to be successful in public school and achieve their potential as learners.

The primary goals of the BRIDGES Program are to help improve students’ skills in: literacy and numeracy, study habits, conflict resolution, relationships, and resiliency. The BRIDGES Program teaches course content in English, history, math, science, and conflict resolution. At the end of their 9th grade year, students can earn the same amount of credits as any 9th grade student, and be on track to graduate in four years.
110BR BRIDGES English
This course is taught within the 9th grade BRIDGES Program. It is designed for students who need reinforcement and increased support in reading, writing, and study skills. This course covers much of the same course content, texts, and assignments as English 9 courses, with the goal of providing interdisciplinary, hands-on, and experiential connections. Course content includes reading a variety of texts and independently selected materials, the formal 9th grade I-Search research project, structured academic essays, vocabulary, and grammar study.
Prerequisites/Notes: Must be enrolled in The BRIDGES Program.

198BR Conflict Resolution
This course is taught within the 9th grade BRIDGES Program. It is designed for students who need increased support with interpersonal skills, time management, positive decision-making, and organization. This course also involves a weekly, facilitated discussion from one of the school social workers. Course content and lessons work towards increasing students’ skills in communication, positive relationships, substance abuse prevention, understanding mental health, anti-bullying, study habits, and more.
Prerequisites/Notes: Must be enrolled in The BRIDGES Program.

205BR BRIDGES Pre-Algebra
This course is taught within the 9th grade BRIDGES Program. It is designed for students who need review, reinforcement, and increased support with pre-algebra concepts. This course is designed to provide students with the skills and knowledge necessary to be successful in Algebra 1. The goal of the course is also to provide interdisciplinary, hands-on, and experiential connections. Course content includes decimals, fractions, rounding, working with data, solving equations, ratio, probability, proportions, and graphing.
Prerequisites/Notes: Must be enrolled in The BRIDGES Program.

210BR BRIDGES Algebra 1
This course is taught within the 9th grade BRIDGES Program. It is designed for students who need review, reinforcement, and increased support with algebra concepts. The goal of the course is also to provide interdisciplinary, hands-on, and experiential connections. This course covers the same content as Algebra 1, including solving equations, inequalities, functions, systems, exponents, polynomials, data analysis, and probability.
Prerequisites/Notes: Must be enrolled in The BRIDGES Program.

310BR BRIDGES Earth Space Science
This course is taught within the 9th grade BRIDGES Program. It is designed for students who need review, reinforcement, and increased support with earth science topics. The goal of the course is to provide interdisciplinary, hands-on, and experiential connections. This course covers the same content as Earth Space Science, including the following areas of study: 1) geology and the forces that help form the solid earth as we know it; 2) the oceans and their importance to mankind; 3) the atmosphere with its ever-changing cycles; 4) the mysteries of the universe and the earth's place in space; and 5) how the activities of civilization threaten these natural environments in which we live.
Prerequisites/Notes: Must be enrolled in The BRIDGES Program.

405BR BRIDGES World History I
Students in this class will apply the skills of a historian while examining the development of civilizations from prehistoric times to the Enlightenment. Aligned with the Maine Learning Results, World History I class has a particular focus on geography skills, with basic economic concepts and the roles of government taught within the larger historical context. While emphasis is on the western hemisphere, study will be globally inclusive to help students understand the historical factors that led to the colonization of the Americas, and in preparation for the continuing examination of World History as juniors.
Prerequisites/Notes: Must be enrolled in The BRIDGES Program.
Upperclassmen Alternative Education

The 10th and 11th grade Humanities Alternative Education program at Gorham High School seeks to provide students with the supports needed to successfully navigate through their high school years. Small class size, individualization, and a project-based approach to knowledge acquisition is the foundation of Humanities. Administrative and Teacher approval is a prerequisite to participation in Humanities.

1060 Humanities 10 (US History and English 10) 2 Credits
This two credit course is designed for students who have struggled with school and need a high degree of individualized attention to develop their reading and writing skills. Course content includes core academic standards of both English 10 and American History. Students read the newspaper daily, participate in simulations and hands-on projects to both gain knowledge and identify applicability of course material to their lives.
Prerequisites/Notes: Administrative recommendation and approval.

1065 Humanities 11 (World History II and English 11) 2 Credits
This two-credit course is an expansion of concepts covered in Humanities 10 with even greater emphasis placed upon personal relevance and connections to future school and/or career plans. This course includes core academic standards of English 11 and Modern World History with attention to the development of critical thinking skills. Heavy emphasis is placed on class participation that is often focused on the social, political, cultural and philosophical implications of history and literature.
Prerequisites/Notes: Administrative recommendation and approval.

311 Alternative Biology 1 Credit
This course is designed for students who need increased support and more individualized instruction in Biology. The course will provide a smaller classroom size, along with an increased focus on essential concepts and questions. It is structured to cover the same concepts and material as Biology Standard, including the nature of science, ecology, biochemistry, cell structure and function, genetics, species adaptation, and classification. Coursework includes lectures, hands-on activities, laboratory experiences, and research projects. Assessment will focus on classwork and conduct and effort, but will also include tests, quizzes, lab reports, and homework.
Prerequisites/Notes: Administrative recommendation and approval.

211 Alternative Geometry 1 Credit
This course is designed for students who need increased support and more individualized instruction in Geometry. The course will provide a smaller classroom size along with an increased focus on essential concepts and questions. It covers the same concepts as the standard Algebra I course, including spatial reasoning, angles and lines, triangles, polygons, congruence, similarity, geometric reasoning, and triangle trigonometry. Students will maintain a notebook, complete daily classwork assignments, and participate in classroom activities. Assessment will focus on class work and conduct and effort, but will also include homework, quizzes, and tests.
Prerequisites/Notes: Successful completion of Algebra I, along with Administrative recommendation and approval.

English Language Learners (ELL)

The ELL Program of Studies is designed for those whose first language is not English. In order to have access to mainstream requirements and academic language demands, these courses are available for those needing instructional support. Following the WIDA Model across the four language domains of Listening, Speaking, Reading, and Writing, classes are divided into four proficiency levels. English Language Learner goals are planned by the collaboration of the student and the teachers to meet individual needs. As is required by law, Language Learners must have received a level 6 as assessed by ACCESS for ELLs before being able to exit the program.

The ELL Resource Room is available to any English Language Learner needing support or just a quiet place to work. In all courses, students will receive homework help when needed. Students are allowed to take tests in the ELL Resource Room with teacher help. Foreign Exchange students are also encouraged to participate.
1070 Entering ELL English 1 Credit
(Proficiency level 1) This course is available for newcomers to the language of English, for those who have been in the U.S. for 12 months or less, or those students needing proficiency level 1 support. Topics may include classroom routines, school life, social & cultural traditions, study skills and strategies, informational gathering, daily life, vocabulary development, listening, reading & writing strategies, and communicative language.
No Prerequisite.

1071 ELL English Workshop 1 1 Credit
(Beginners: Proficiency level 2) Topics may include building academic language, general language needed for mainstream content area classes, strategies for developing reading and writing skills, autobiographical & biographical narratives, note taking, The Story of the U.S., banking and money, mathematical terms, and topics related to the student’s content area courses.
Prerequisites/Notes: Must have received the screening MODEL, or passed the ACCESS for ELLs Tier A level and passed level 1.

1072 ELL English Workshop 2 1 Credit
(Developing: Proficiency level 3) Topics may include multicultural/ world literature, research and investigation, literary genres, multiple meanings in words, convention and mechanics, character development in literature, scanning for the main idea, the interviewing process, mathematical word problems and their meanings, and topics related to scientific terms, research and investigation, world histories/civilizations/cultures, historical figures and times, and the writing process.
Prerequisites/Notes: Must have received the screening MODEL, or ACCESS for ELLs and passed level 2.

1073 ELL English Workshop 3 1 Credit
(Expanding/Bridging: Proficiency Level 4 & 5) Topics may include points of view, critical commentary, debate, literal and figurative language, mathematical academic terms for test-taking, compare and contrasting, social issues, problem-solving, summarizing information from various sources, skimming material for meaning of words or sentences in context, discussing pros and cons, integrating information into a text, and any topic that may relate to student mainstream classes.
Prerequisites/Notes: Must have received the screening MODEL, or ACCESS for ELLs and passed level 3.

1074 ELL Adv Writing Workshop 1 Credit
(Proficiency Level 5 & 6/ACCESS Tier C) This course is designed for those ELL students who want to continue improving their writing skills. This class will focus on writing strategies that will prepare them for college academic writing assignments. Topics may include sentence structure, paragraph to essay, process essays, paraphrase and summary, cause and effect essays, comparison and contrast essays, persuasive essays, descriptive essays, reasoning essays and the writing process.
Prerequisites/Notes: Earns elective credit.

1075 ELL American History 1 Credit
ELL American History focuses on building background knowledge of American history from the Pre-Columbian era through the Modern Age. Emphasis will be placed on major historical events and people, as well as U.S. Geography. Additionally, the course will incorporate a basic understanding of America’s system of government and the information necessary to successfully apply for U.S. Citizenship.
Prerequisites/Notes: Permission of administrator and/or teacher.

1079 ELL Study 0.5 Credit
In lieu of a regular study hall, students may receive homework tutoring, project help, test taking, or any necessary language support.
Prerequisites/Notes: Earns elective credit per semester.
VOCATIONAL OPPORTUNITIES

Gorham High School is associated with two (2) technology centers. Westbrook is the primary center for GHS. Students may attend Portland only if the program they desire is not offered at Westbrook. Both of these centers offer more detailed explanations of their courses in their handbooks, which are available in the GHS Guidance Office. These programs are offered to students during their junior and senior years. Transportation is provided by the Gorham School District. Students are required to ride the bus each way unless they have received parent and administrative approval to use car transport.

Westbrook Regional Vocational Center

Automotive Technology  Early Childhood Occupations
Building Trades  Electricity
Business  Heavy Equipment Operation
Commercial Driver’s License  Marketing Education
Computer Aided Design (CAD) / Drafting  Medical Occupations
Computer Repair and Networking  Public Safety
Culinary Arts  Web Page Design

All W.R.V.C. courses are sequential and are two years in length. In general, Juniors attend the morning session and Seniors attend the afternoon session. A student must satisfactorily complete the first year before continuing into the second year. Interested students should see individual description folders for more complete information about each course and then visit W.R.V.C. for firsthand observation of course activities.

AUTOMOTIVE TECHNOLOGY
Automotive Technology is a challenging and exciting program that explores the intricacies of repairing and diagnosing complex modern automobiles. Our program is certified by the National Automotive Technical Educational Foundation (NATEF) and Automotive Youth Education Systems (AYES). In the first year, students will spend half of their class time in the classroom learning theory and the other half demonstrating shop-based skills. Students will need to keep a notebook for each quarter and write a work order for each shop day. The first quarter is focused on safety and how to operate shop equipment. Second and third quarters cover brake systems and steering and suspension systems. The last quarter covers engine performance, which includes ignition, fuel, and emission systems.

In the second year, students begin to do more hands-on work with includes diagnostic skills. Students will create and present hands-on projects to classmates about how and why they fixed a particular system. Students will keep a portfolio to document each day’s work in the shop. We encourage students to prepare for and take national and state sponsored exam.

950  Automotives I  3 Credits
951  Automotives II  3 Credits

BUILDING TRADES
Participation in this program provides a first-hand experience in the construction of a house. The program constructs a super insulated home over two years. Students participate in the following activities; site planning, rough framing, roofing, exterior finish, interior finish and cabinetry, to name a few, of the topics covered. Safety in the use and operation of; hand tools, portable and stationary power tools are also addressed. Students will learn about the latest technology in building materials and processes used in the residential construction industry.

952  Building Trades I  3 Credits
953  Building Trades II  3 Credits
BUSINESS

The Business program is designed to equip students with the business skills and knowledge needed to become an invaluable member of an organization and introduce them to post-secondary education opportunities in business, management, and accounting. Westbrook is a Microsoft Testing Center; therefore, students have the opportunity to become Microsoft Office Certified in Word, Excel, Access, and PowerPoint.

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<thead>
<tr>
<th>YEAR</th>
<th>Semester 1</th>
<th>Semester 2</th>
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<tbody>
<tr>
<td>962 Business I (3 credits)</td>
<td>Keyboarding</td>
<td>Computer Applications*</td>
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<tr>
<td></td>
<td>Financial Mgmt.</td>
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*Students earn college credit at Thomas College if they successfully complete these courses. In addition, Husson University will grant a student 3 college credits at Husson if they successfully complete the Accounting class here at WRVC.

Keyboarding

The Keyboarding curriculum is designed to give students keyboarding and computer skills that will serve them throughout their school years, in their personal lives, and in their careers. Students will learn to use the computer keyboard more efficiently than if they use the “hunt and peck” system. Microsoft Word and Excel skills will be introduced as students learn how to keyboard.

Business Operations Management

Students will learn about the management functions of operating a business and have opportunities to practice the skills needed to be in the position of manager and business owner. Students will develop a business plan, create start-up, operational, and sales budgets while gaining an understanding of financial management, inventory control, scheduling, strategic planning, and how to make financial decisions. Class activities will help students develop proficiency communicating in the workplace.

Human Resource Management

This course is about the management of an organization’s most valued assets - the people working there who individually and collectively contribute to the achievement of the objectives of the business. Topics covered included the hiring process (résumé, letter of application, interview, dress, etc.) setting expectations and goals, implementing and enforcing policies, providing rewards and recognition, negotiating, ethics in the workplace, employment and labor laws, and other functions of HR. Students will learn about and practice different leadership and management approaches, and observe the types of power people have or are given. Throughout this course, students practice workplace communication skills through various activities.

Accounting/Quickbooks

This course is an introductory accounting course. Students will learn the fundamental principles of accounting for service and merchandising businesses. The course will cover the complete accounting cycle, automated systems, and ethics. Beginning this year, students who successfully complete this course will also earn college credit at Thomas College. Westbrook has a dual enrollment agreement with Thomas College; this is a unique opportunity for high school students to earn college credits in the comforts of their own environment at no cost to the high school or student. Students will become skilled at analyzing and journalizing business transactions, posting to individual ledger accounts, preparing a six-column worksheet and financial statements. Students will conduct audits, where they check the accounting ledgers of a company to see if the ledgers provide an accurate picture of the financial doings of the business. Students will also learn the software QuickBooks, a bookkeeping software solution for small businesses, and learn how to track sales and expenses, create invoices, pay bills, and organize a small business’s finances.

Financial Management
This course is designed to provide students with a solid framework in the basics of financial management. Financial education is all about becoming empowered through knowledge. Through real-life situations, students will use their newly acquired skills and knowledge to become money managers and will compete in an investing competition against classmates. The emphasis is on short, intermediate, and long-term planning; budgets; cash flow management; and investing.

**Computer Applications**

This course introduces the student to a suite of software tools critical to academic and workplace success (word processing, spreadsheets, E-mail, Internet tools, presentation graphics, and databases). Most people today believe they have a basic understanding of Microsoft applications, but very few use these programs to their maximum level of efficiency and effectiveness. Students in this class quickly realize how much there is to learn about Microsoft Office and how their newly acquired skills will help them work significantly faster. Students not only obtain employability skills but as of the fall of 2013 earn college credit at Thomas College. Westbrook has a dual enrollment agreement with Thomas College; this is a unique opportunity for high school students to earn college credits in the comforts of their own environment at no cost to the high school or student.

Areas covered include the use of shortcuts, using page layout options, setting tabs, creating styles, using macros, formatting tables, using the format painter, and completing mail merges in Word. Students will learn how to format various documents such as newsletters, memos, letters, lab reports, agendas, and multi-level outlines. Students will have opportunities to create slide show presentations with animations and transitions using PowerPoint. PowerPoint has become the premier presentation software format and is definitely a staple of current computing. Students will quickly realize that producing effective presentations using PowerPoint will strengthen their speeches and presentation of ideas and knowledge. Excel include entering text and data, entering formulas, creating conditional statements, filtering data, formatting data, creating macros, and graphing.

**COMMERCIAL DRIVER’S LICENSE**

Students who complete this program will be eligible to earn a class B driver’s license at the end of year one and a Class A driver’s license at the end of year two. This program will concentrate on state devised curriculum for Commercial Truck driving examination completion. In addition to classroom instructions, students will complete the required range and road time necessary for licensure. General Truck components and general maintenance will be covered. In addition to the CDL license requirements students will have the opportunity to receive the 10-hour OSHA safety certificate. Prerequisites for participation: Students must hold a valid Maine driver’s license, have a clean driving record. Additionally, a drug test will be required upon acceptance to the program.

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>958</td>
<td>Commercial Driver’s Lic 1</td>
<td>3</td>
</tr>
<tr>
<td>959</td>
<td>Commercial Driver’s Lic 2</td>
<td>3</td>
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**COMPUTER AIDED DESIGN (CAD) / DRAFTING**

Drafting is a two-year sequential program that explores the concept of Engineering, Mechanical and Architectural drafting through sketches and CAD (Computer Aided Design). The first year is a “hands-on” approach where students study both mechanical and architectural drafting by designing, drawing and creating projects using their own prints as the basis for their creativity. Students will build and test their prototype designs and construct 3D model structures.

**Tech 1: Mechanical and Architectural Design**

In the first semester, this course will introduce students to the mechanical engineering field utilizing computer Aided Design (CAD). This course will cover areas of sketching, basic design, manufacturing, how to draw using CAD and creating different kinds of 2D drawings. The culminating project will incorporate a student designed item, designed drawn and created using a 3D printer.

During the second semester, students will learn about architectural design, framing technique, building codes and construction practices. Students will create a 2D and 3D drawing of a residential dwelling. The class will draw a complete set of plans for a one story home utilizing CAD. There are no prerequisites.
Tech 2: Mechanical or Architectural and 3D Modeling
The second year of drafting consists of designing projects in either mechanical or architectural areas. Emphasis will be in developing advanced skills using CAD and 3D modeling. Skills students will acquire; Engineering practices, Drawing Technique, Manufacturing Practices, Building Construction Techniques, Drawing and Architectural 3D Modeling. Additionally, WRVC’s drafting program has Articulation Agreements with Southern Maine Community College (SMCC).

Activities in which students participate: Model building, designing residential and commercial projects, prototypes made from machinable wax and a 3D printer.

Skills practiced in this trade: Math, communication skills, science, design skills, and science applications.

987 CAD/Drafting Tech I 3 credits
988 CAD/Drafting Tech II 3 credits

COMPUTER REPAIR AND NETWORKING

Computer Repair and Networking 1
An introductory course covering the basics of computer hardware, software and networking for home or small business. No experience or prerequisites are required. The course prepares students to repair and upgrade personal computers including laptops and is ideal for students wishing to enhance their computer knowledge. The networking portion prepares students to setup and manage both wired and wireless local networks and each student will have the opportunity to sit for the Cisco Networking Academy course completion exam at the end of the year. Students will be assigned lab computers to use for the duration of the course.

Computer Repair and Networking 2
A continuation of Computer Repair and Networking focusing on learning the skills necessary to pass the CompTIA A+ certification exams (801/802). Students interested in taking this course should have completed Computer Repair and Networking 1 or a similar program. Emphasis will be on advance troubleshooting techniques including hardware and software issues (XP pro/Win 7 pro). Motivated students will have an opportunity to sit for the nationally recognized CompTIA A+ certification exam at the end of the year.

985 Computer Repair and Networking I 3 credits
986 Computer Repair and Networking II 3 credits

CULINARY ARTS
In this foundation course, first year students will learn basic dining room & beverage service, kitchen safety & sanitation, knife skills including care and maintenance, stocks, Grande Sauces, egg cookery, classical techniques which include roasting, braising, poaching, frying, grilling, sauté, and basic baking methods. This program incorporates a number of diversified, flexible food modules: short order cooking, preparing and serving meals, quantity cooking, bakeshop, table service, catering for community organizations, cake decorating and dessert preparation, cook’s helper sequence and orientation to the food industry. Sandwiches, appetizers, meat & poultry identification and cookery including culinary math, are taught. These modules are designed to meet individual needs for skill development and preparation for the food service industry.

The second year student’s curriculum sequence includes: more classical techniques for roasting, sauté, braise, poach, grill and frying, advanced cooking techniques of various proteins, gravies, sauces, seafood and vegetables, and the curriculum for national ServSafe® sanitation certification. Tech II students also prepare lunch served in the Culinary Learning Center dining room for weekly Rotary luncheons in addition to a variety of other functions. Some evening events are held in order for students to gain experience in service training both in the front and back of the house. Each student is required to work a minimum of one evening function per year.

Interest in food and ability in skill acquisition are determining factors in student progress.

964 Culinary Arts I 3 Credits
965 Culinary Arts II 3 Credits

EARLY CHILDHOOD OCCUPATIONS
The Early Childhood Occupations Education Program is a program designed for students preparing for careers involving children. Students should love children, have good communication skills, be responsible, be dependable, work well independently, and read to grade level. Tech I students will participate in nursery school four days per week, working with
3 ½ to 5 year olds. While working in the nursery school, students will work within teams, planning and implementing activities according to a curriculum theme. Tech II students will participate in nursery school three days per week in one semester working with 3 to 3 ½ year olds. They will also intern for one semester at a community-based program or class appropriate to career goal.

956 Early Childhood Occ I 3 Credits
957 Early Childhood Occ II 3 Credits

ELECTRICITY
This program is designed to provide entry-level skills into the electrical field. Students learn to install wiring systems from blueprints and according to the National Electrical Code. Participants will learn to wire residential and commercial projects. Students work on safety at all times in the course. Students will wire splices, low voltage systems, non-metallic and metallic cables and wiring in conduits. Ohms Law calculations are used frequently. A vast amount of time is spent practicing switching circuits. Students are exposed to real world situations every day. Moral business practices and finances are discussed frequently.

968 Electricity I 3 Credits
969 Electricity II 3 Credits

HEAVY EQUIPMENT OPERATION
This program will include basic construction safety, introduction to site work and roadwork layout, identification of heavy equipment and use, and proper operation and preventative maintenance. Operation skill development will be performed on excavation simulators. Additionally, students will learn basic skid steer, excavator, dozer, front end loader operation and can receive the 10-hour OSHA safety certificate. The student text book will be from the National Center for Construction Education and Research. Class and lab work will be supplemented with field trips to job sites, local mining (gravel) pits and dealerships. A drug test will be required upon acceptance to the program.

970 Heavy Equipment I 3 Credits
971 Heavy Equipment II 3 Credits

MARKETING EDUCATION
The first year of Marketing introduces students to Retail/Marketing Operations and Applied Commercial Graphics. In Retail/Marketing Operations, students will learn the business functions involved in running a successful school based enterprise, as well as gain the skills and attitudes required in any job. This is an introductory course that provides students with basic understanding of general merchandising and retail store operations. Upon satisfactory completion, the students will be able to apply techniques of selling, promotion, inventory control, conduct and analyze customer surveys, merchandising, and create visual displays. Students will complete cash, check, and credit sales transactions using “state of the art” Point of Sale (cash register) systems. Students will translate knowledge into a successful store operation. On-the-job training in the School Store is integrated into class instruction. Students taking retail marketing operations will have the opportunity to participate in DECA (student marketing leadership organization).

In Applied Commercial Graphics, students will be introduced to basic graphic design using industry accepted software. Students will apply technical knowledge and skills to plan, prepare, and execute commercial and industrial visual images and print products, using mechanical, electronic, and digital graphic printing equipment. Students will apply their knowledge on a variety of community projects as well as produce merchandise for sale in the School Store. Students will learn the basics of screen-printing, embroidery, engraving, vinyl cutting, sublimation and large format printing.

Students returning for the second year will participate in Retail/Marketing Management and Sports and Entertainment Marketing Management. In Retail/Marketing Management; students will learn the management functions involved in managing a successful school based enterprise. This course will provide students with a deeper understanding of economics, promotion, selling and management. Students will continue to participate in the daily operation of the school store while performing management duties such as; training, scheduling, buying, pricing, inventory control, planning promotional activities and order fulfillment through the E-Store. On-the-job training in the School Store is integrated into the class instruction component. Students taking retail marketing management will have the opportunity to participate in DECA (student marketing leadership organization).
In Sports and Entertainment Marketing Management students will; participate in an introductory course which will help students develop a thorough understanding of the marketing concepts and theories that apply to sports and entertainment marketing. Students will learn about basic marketing concepts, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and sports and entertainment marketing plans. Students will explore how the Sports and Entertainment industry has evolved and continues to evolve in the global economy. Students will examine the many products and services offered and the career opportunities they provide. Students taking sports and entertainment will have the opportunity to participate in DECA (student marketing leadership organization).

090 Marketing Education I 3 Credits
091 Marketing Education II 3 Credits

MEDICAL OCCUPATIONS
The Medical Occupations is a program that introduces students to the medical field. Students are able to investigate and learn about different professions within the healthcare system. Students spend a great deal of time learning medical terminology as well as anatomy and physiology of the human body and basic health care skills. Students in the first year program will have the option to obtain their Personal Support Specialist Certificate (PSS) at the end of the program. This allows students to work in the assisted living setting and home setting assisting clients with basic health care needs. Students receive American Red Cross and First Aid certification. Second year students have the opportunity to obtain their Certified Nurses Assistant (CNA) training. Students that opt to take part in the CNA program must perform 70 hours in the clinical setting and pass a state exam to be put on the State of Maine CAN Registry. Additionally, students can obtain Phlebotomy certification after successful completion of course work and live sticks. Second year students continue to explore careers in health care and focus at more in-depth knowledge of anatomy and physiology of the human body. Health care skills continue to be taught and practiced in the lab setting as well as some basic science experiments and dissections.

974 Medical Occupations I 3 Credits
975 Medical Occupations II 3 Credits

PUBLIC SAFETY
Tech I students explore opportunities available in Fire Fighting. Upon successful completion of this curriculum you will qualify to test for and receive your nationally recognized Fire Fighter I & II certification. (Many Colleges that offer Fire Science award 6 college credit hours for this certification)

Tech I students are also introduced to the philosophy of a para-military career choice and learn the importance of staying fit, both mentally and physically. Maturity and responsibility are two words that are heavily stressed in this program.

Tech II: Semester 1 is dedicated to studying the EMT-basic curriculum. Successful completion of this curriculum and it's associated State practical examination will certify the student in EMT-basic, which will qualify them to take their “National Registry Exam” and secure their State license. (Many colleges, SMCC,NMCC etc.) will award students with this license 5 credit hours.

Tech II: Semester II is an Introduction to Law Enforcement. You will study subjects such as use of force, search and seizure as they apply to our Constitution. Forensic Science and Crime scene processing are a few of the more than 40 subject areas of Law Enforcement that you will explore.

The culminating experience for Tech II students is to receive an introduction to police weaponry. During this module, students receive training from State of Maine certified firearms instructors in the identification, uses, and deployment of police weapons and use of force such as take down techniques and self-defense.

976 Public Safety I 3 Credits
977 Public Safety II 3 Credits

WEB PAGE DESIGN: Web Design and Multi Media
Do you have interest in how the web works, how to create digital images and crave to see how digital video makes things come to life, than this is the class for you. Tech I’s in Web Design and Multimedia works with many areas of the new media revolution. Working with the basic framework of web design, graphic design, web programming, video editing and
digital effects. The course follows the Adobe curriculum for web and multimedia. Students gain skills using HTML5 and CSS. The skills in web design and media creators are varied covering many and varied skills of computer programming, project management, animation effects and graphic design. It is an ever changing and exciting field that has grown exponentially over the last decade. We focus on Adobe Photoshop, Dreamweaver, Premiere and After Effects, but we cover many other technical areas in the industry, including Python, JavaScript, and animation.

Tech II students work on more advanced coding and design projects. Students work on mobile web environments, internship web projects, video programming, and client directed projects. Students will work with JavaScript and dabble with Python for web. Focusing on the programming and design certification curriculum, students will focus on the client-based skills needed to succeed to take the final certificate exam. As a Certiport testing facility, we can offer students the opportunity to try the associate certification exams in Web communications (Dreamweaver, HTML), Video production (Premiere), and Visual communication (Photoshop). We have agreements with SMCC and CMCC for articulation and dual enrollment after completing the two-year program.

092 Web Page Design Tech I 3 credits
093 Web Page Design Tech II 3 credits

Portland Arts and Technology High School

Auto Collision Technology  Landscapes and Gardens
Auto Tech  Manufacturing
Carpentry  Masonry
Commercial Art  Music
Culinary Concepts  New Media
Dance  Plumbing / Heating Tech
Early Childhood Occupations  Recreation / Marine Repair
Fashion Marketing  Welding/Metal Fab
Food Services  Woodworking
Health Science Careers

Portland Arts & Technology High School provides skill training in nineteen different two-year occupational programs for the nineteen sending schools in our region. Students in grades 9 - 12 are afforded the opportunity to train in the program and prepare for the occupation of their choice. These classes are designed for career bound and college (post-secondary) bound students and are an extension of their high school schedule. PATHS classes count toward graduation as any other high school class. Classroom theory and instruction, extensive labs, shop projects and community-based internships combine to give students real life experience in career directions.

PATHS follows the Portland Public Schools calendar and offers two sessions a day: Session 1 (8:00 - 10:30 AM) and Session 2 (11:00 AM – 1:30 PM). All courses qualify students for 3 credits and are taught at the Portland Center on Allen Avenue. Transportation is provided by the school. Students are required to ride the bus. Only students who have parental permission and are authorized in writing by the administration may drive to PATHS.

Students successfully completing a sequence (1 or 2 year) of an approved program may be eligible for Integrated Studies credit. Sending schools can award an Integrated Credit (Math, Science, Fine Arts) as part of the elective credit - not as additional credit. Students interested in receiving integrated credits should talk with their sending school Guidance Counselor. NOTE: All PATHS programs follow national curricula standards and have been aligned with the Maine Learning Results (MLR).

Applicants must make individual visits to the program of their choice during their sophomore year in order to be considered for acceptance. Arrangements for these visits should be made through the Guidance office who will contact the Center to arrange the date and time of the visit during regular school hours. Once a student has visited the program and completed the application, they need to meet with their Guidance Counselor to determine whether they will enroll for the following year.
902 AUTO COLLISION TECH  
From damaged to dynamic! Learn the skills necessary to bring that automobile back to showroom condition. Students will learn the skills necessary to use a frame machine, spray guns, and some of the state-of-the-art techniques like adhesive panel replacement, paint blending and specialty paintwork like striping and flaming. Basics in welding, wiring, front end alignment and basic mechanics will also be covered. Through their affiliations with national paint companies and curriculum developers students will have the opportunity attend seminars and workshops. **Career Opportunities:** Auto Collision Technician, Frames Specialist, Refinish technician, Refinish Prep Specialist, Insurance Estimating, and Paint Mixing Specialist.

903 AUTO TECH  
The Automotive Technology course provides students with skills to develop a thorough understanding of the design, construction, and operation of automotive systems. During their two-year involvement with this program, students are taught how to troubleshoot, service, and repair modern automobiles. Using the most up-to-date technology available, these students are prepared to face the challenges of today’s automotive industry needs. National affiliations with the Ford Skills Competition, AYES, and ongoing placement opportunities with local dealerships provide practical skill development. **Certification Opportunities:** NATEF, Maine State Police, Valvoline Oil, and SP2 Safety. **Career Opportunities:** Mechanic, Diesel Mechanic, Brake Specialist, Service Writer, and Parts Specialist.

980 CARPENTRY  
The Carpentry Program has been designed to instruct students in all types of house construction and remodeling. Students are involved in foundation layout work, house framing, and exterior and interior finish carpentry work. The students work with a variety of building and finishing materials, and become familiar with modern methods and styles of commercial and residential construction.

Carpenters are the largest group of building trade workers. They usually have greater opportunities then most other construction workers to become general construction supervisors, since they are involved with the entire construction process. Throughout the program, strong emphasis is placed on employment with a union shop or general contractor. The carpentry program is an excellent foundation for those going on to post-secondary education. **Certification Opportunities:** OSHA 10 Card and NCCER Carpentry. **Career Opportunities:** Framing Carpenter, General Contractor, Sub Contractor, Apprentice Carpenter, Lumber & House Salesperson, Mill Worker, Carpenter Helper, and Finish Carpenter.

904 COMMERCIAL ART  
This course is for art students who want to make income from their art and create a strong portfolio for college or work. Students learn to prepare and set up their artwork, create business cards, artists’ statements and career applications. The curriculum also provides the opportunity to earn AP art certification for college. Art ability assessment test required at time of visit. **Career Opportunities:** Designer, Illustration, Art shows, and Graphic Artist.

905 CULINARY CONCEPTS  
This course is designed to educate students for a career in commercial food service. From production to management to live work experience, you’ll do it all! There will be an emphasis on catering, which includes sanitation equipment, menu planning, purchasing, selection and storage of food, inventory, preparation, serving, and fundamentals of restaurant management. Students are introduced to career specialties within the food service industry such as short order cooking and general cooking with specialized preparation in meats, vegetables, seafood, baking, and management. **Certification Opportunities:** ServeSafe and ServePro. **Career Opportunities:** Cook, Baker, Chef, Pastry Chef, Restaurant Manager, Food Buyer, Food Sale, and Butcher.

940 DANCE  
The Arts Academy Dance program is a modern dance based program. Students study modern dance technique, which includes choreography, improvisation, and dance composition. Students are exposed to a wide range of professional guest artists and other styles of dance including African dance, hip hop, ballet, ballroom dance as well as weekly classes.
in yoga, Pilates, and conditioning for dancers. Students perform at the end of each semester and at the PATHS Spring Fashion Show. Students in the program attend a number of concerts and workshops with professional touring companies through a partnership with Portland Ovations. Dancers of all levels may apply to the program. After an initial first visit, potential students must participate in an audition/class. The audition class is scheduled in May or dancers may audition individually by setting up a date with the instructor.

**944 EARLY CHILDHOOD OCCUPATIONS**

This course is designed for students who are preparing for careers in teaching and caring for young children, birth through age eight. The course provides a foundation in child development, family systems, childcare management, and teaching at the early elementary level. Students plan and manage a campus child development lab program, and intern in community-based programs and area elementary schools. The course has been designed with multiple entry and exit points so that students may enroll for one to four semesters, choosing work that matches their needs and future teaching plans. **Certification Opportunities:** Child Development Associate. **Career Opportunities:** Preschool Teacher, Elementary Teacher, Childcare Provider, Educational Technician.

**906 FASHION MARKETING**

Fashion Marketing offers an introduction to the “business” of fashion. Learn the components of customer service, designing fashion displays, composing effective advertising, the basics in fashion design and garment construction. Students will present seasonal sales promotions and will manage a new school store. Students present a fashion show each year. Students are encouraged to be involved in a national marketing organization called DECA. Students may participate in a hands-on internship and will have the opportunity to intern in a local business, to gain experience and knowledge about the field of fashion merchandising and marketing. **Career Opportunities:** Advertising, Visual Merchandising, Store Management, Fashion Buying, Retail Merchandising and Fashion Designer.

**908 FOOD SERVICES**

The Food Service Program prepares students for entry-level employment in the food service industry. This supported program offers real life experiences through the operation of a student run café. Students receive a varied hands-on education in food preparation, equipment usage, sanitation, personal hygiene, customer relations, teamwork, attitude, initiative and independence. **Career Opportunities:** Prep Cook, Wait Person, Dishwasher, Cashier, Clerk, Sandwich Prep, and Fast Foods Worker.

**912 HEALTH SCIENCES CAREERS**

The first year introduces the students to careers in health sciences. Students can choose from three different paths: nursing, pre-dental, and pre-vet. Students study anatomy, physiology, nutrition, diet therapy, and complete a medical research project through field trips, demonstrations, and classroom instruction. The second year prepares the student in basic health science skills, body mechanics, aseptic techniques, and medical terminology. Students are placed in clinical experiences of their choice during the second semester. The Health Science Careers Program also serves as a foundation for further education in a technical school or college. Health Occupations Students of America (HOSA) is an integral part of the program; Articulation Agreement with SMCC. To enter this program you must be at least 16 years old and you will take a test to ensure 9th grade reading and writing level. **Certification Opportunities:** Certified Nursing Assistant, CPR, and First Aid. **Career Opportunities:** Personal Support Specialist (P.S.S.), Certified Nursing Assistant (C.N.A.), Dental Aide, Veterinary Aide, Physical Therapy Aide, Rehabilitation Aide, and many other health science careers. This class meets the State Requirement for certification as a Nurse Assistant.

**914 LANDSCAPES AND GARDENS**

This exciting supported program, formerly called Horticulture, provides students the opportunity to work in PATHS largest classroom – 40 acres. You get to experience retail and wholesale marketing techniques through the management of our 3,000 sq. ft. greenhouse. Students will work in our display beds, the arboretum, our community perennial garden and the extensive grounds of our campus. Landscape design, equipment use, turf management and greenhouse management are emphasized. Floral Students learn to identify, grow, and care for trees, shrubs, and flowering plants. **Career opportunities:** Greenhouse or Nursery Worker, Garden Work, Golf Course, Landscaping Design, and Parks Department.
921 MANUFACTURING
This course offers knowledge, skills, and experience in the production of precision metal products. Students learn how to manufacture and measure a variety of metals used to produce metal products. By making specified products, students learn how to read blueprints, do shop math, layout their work, select, set-up, and safely operate lathes, milling machines, drill presses, and grinding machines. Advanced students learn how to program, set-up, and operate CNC lathes and milling machines. Computer Aided drafting (Auto Cad) is also covered. Robotics will include the designing, AutoCAD drawing, programming, manufacturing, and testing of robots. Several local and regional robotic competitions should make this an exciting class. If time permits, solar systems, pneumatics (air), and composites will be integrated. This class will offer a variety of disciplines that will help prepare students for college and many different careers in Robotics, Engineering, Mechanical or Electrical currently offered at colleges throughout the United States. Students can join an after-school Robotics Team, which takes part in area robotic competitions. Articulation Agreements with SMCC and CMCC. Certification Opportunities: NIMS. Career Opportunities: Machine & CNC Operators, Inspectors, Layout and Set-up Technicians.

922 MASONRY 3 Credits
Fireplaces, Barbecue pits, steps, planters and columns for lighting applications are only a few of the projects you’ll undertake in this exciting program. Design and layout of projects using brick, block, dry stone (wall construction), decorative pre-cast concrete and repair of existing masonry structures are all part of the skills you’ll acquire. Students are instructed in shop and job safety practices and procedures. Students receive related instruction in blueprint reading, layout work, measurement, sketching and estimating. Certification Opportunities: OSHA, Forklift, and NOCTI. Career Opportunities: Mason, Mason tender, Bricklayer, Contractor, and Tile Setter.

924 MUSIC 3 Credits
The music program is designed to offer student musicians a diverse experience in the music industry. There are 3 main components of the music program at PATHS. Students study the Theory and Ear/Rhythm training of music, they practice their solo and ensemble performing skills in our ‘classroom theater’, and they learn Audio recording, editing and mixing in our Recording Studio. Some other examples of work we do here are: Song writing, the Business of Music, and Music History. This program requires a student audition, essay, and teacher recommendation prior to enrolling. Must return for a second visit for an audition as well as turning in a short essay and a teacher recommendation. Career Opportunities: Performer, Music Educator, Composer, Song Writer, Music Producer, Audio Engineer, Recording Engineer, Sound Mixer, Digital Workstation Editor, Post Production Engineer, Mastering Engineer, MIDI Engineer, Music Scoring (Studio Manager, Music Video Production, Special Event Lighting/Sound Presentation, Digital Video, Sound Design).

942 NEW MEDIA 3 Credits
Our world is moving faster every day and media production for the Web or TV is a powerful force within it. From PHP & Flash to Panasonic & Sony, the New Media Program at PATHS introduces students to the basics that all new media producers need. Students are prepared for career or college with an individualized curriculum. Every student will master the basics of graphic design, project design and management, shooting and editing video, and PhotoShop. Then each student, working with teacher David Beane, will create a customized program for more advanced study. Whether a student is planning on a college career, an apprenticeship, immediate entry into the workforce, or a combination of those, the New Media Program will prepare that student to be successful. Topics in New Media include PhotoShop, Concepts in Graphic Design, Project Design and Management, Introduction to Video Creation and Editing, Broadcast Programming, Script Writing, and Animation. Certification Opportunities: AVD User Certification and Maine Broadcasters Association. Career Opportunities: Video Tape Editor, Production Assistant, and Video Production.

926 PLUMBING / HEATING TECH 3 Credits
Plumbing & Heating is a two-year program providing instruction in all phases of repair, maintenance and installation of plumbing and heating equipment. The first year of the program is spent in the plumbing lab learning to work with all types of pipes, joints, traps, fixtures, tanks and pumps. In the second year, students study three types of oil heating systems: warm air, steam and hot water. Students will be involved in the practice of installation, maintenance, and adjustment of equipment, as well as the wiring of the electrical components of oil burners, including trouble shooting, testing and adjusting. Both years use a nationally recognized curriculum with national registry for qualified students. Graduates have basic entry-level skills to enter the work force or attend technical schools in HVAC, Plumbing and Heating. Certification Opportunities: OSHA 10-Hour Safety, Home Builders Institute, National Oil Heat Research Alliance, and NOCTI. Career Opportunities plumbing and heating contractors, maintenance workers, plumbing and heating warehouse workers and
salespersons. Additional training and licenses may provide opportunities as supervisors or operators of related businesses.

928 RECREATION / MARINE REPAIR 3 Credits
If you like the thrill of hearing a finely tuned marine engine run or troubleshooting why a 4-wheeler is skipping, then this program is for you. Students will learn all about small engines and how they operate. You will diagnose and repair small engines for all marine and recreational equipment including motorcycles, inboard/outboard boat motors, snowmobiles, lawnmowers, snow blowers, ATV’s and more. You will also do fiberglass repair projects on boats, as well as preparing small engines for winter storage. Certification Opportunities: EETC, Valvoline Lubrication, and ABYC. Career Opportunities: Small engine mechanic in motorcycle, snowmobile, ATV or boat businesses; general work in boat yard; fiberglass boat repair.

936 WELDING / METAL FAB 3 Credits
This course includes instruction in the safe operation of oxygen/acetylene gas welding, brazing and cutting. The first year students will be taught Shielded Metal Arc Welding (S.M.A.W.), Flux Core Arc Welding (F.C.A.W.), and Gas Metal Arc Welding (G.M.A.W.). Second year students will be involved in projects that will include but will not be limited to: utility trailers, snowmobile trailers, landscape trailers, various metal craft projects by your own design, and outside projects for individuals or schools. First and second year students will have the opportunity to attempt the structural plate test limited to ⅜ inch thickness after they have proven their basic proficiency in the S.M.A.W. process. Pipefitting and pipe welding techniques will be taught, which will include Gas Tungsten Arc Welding (T.I.G.), 5P root and 7018 to cover. Carbon Arc Cutting, Plasma Arc Cutting and Aluminum Welding will also be introduced. Basic math computations including addition and subtraction of fractions, converting decimals to fractions and basic Geometry will be taught. Blueprint reading and sketching will be practiced regularly. Articulation Agreements and dual enrollments with SMCC and EMCC. Certification Opportunities: American Welding Association. Career Opportunities: Certified Welder, Welder’s Helper, Pipe Fitter, Fabrication Shop Specialist operating automated cutting and welding equipment, owner/ operator of welding/metal fabrication shop, Quality Control Weld Inspector. The opportunities in the steel trades are endless.

938 WOODWORKING 3 Credits
Make a Shaker-style table, CD holder, speaker boxes and a host of other interesting projects produced in this program. Woodworking is a supported program where students will learn about tools, joinery, turning, fasteners, abrasives, finishes, and computerized CNC routing. Students make individual, group, and class projects from a variety of woods. Part of this program is called Basic Woodworking, which is designed for a wider range of students. All students will be exposed to community service, artistic techniques, manufacturing, and custom craftsmanship through field trips and shop projects. Career Opportunities: Job entry level in Carpentry, Cabinetry, Woodworking, Mill Work, Building Supplies Store, and post secondary schools (2 and 4-year).