

Program of Studies



**Portsmouth High School
2018-2019**

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Program of Studies

2018-19

FOREWORD

Portsmouth High School is a comprehensive high school and includes grades nine through twelve. It prepares students for liberal arts colleges, colleges and schools for technical and career training, as well as positions in business and industry for the world of work. In all areas, encouraging students to maximize their potential and be life-long learners is considered most important.

Parents are encouraged to visit the school. Only with their cooperation and assistance can the school render the best possible service to its students and to the community.

**Portsmouth High School
50 Andrew Jarvis Drive
Portsmouth, New Hampshire 03801
603-436-7100
www.cityofportsmouth.com/school/phs/index.html**

ACCREDITATION STATEMENT

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

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

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

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

New England Association of Schools and Colleges

3 Burlington Woods Drive, Suite 100
Burlington, Massachusetts 01803-4514
(781) 425-7700 • FAX (781) 425-1001

NOTICE OF NONDISCRIMINATION

The Portsmouth School Department does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs, activities and services, and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the non-discrimination policies:

Jeanette Souther, Director of Pupil Support and Title IX Coordinator

Portsmouth School Department
1 Junkins Avenue
Portsmouth, NH 03801, 603) 431-5080

The Director of Pupil Services & Instruction and Title IX Coordinator is responsible for the oversight of all anti-discrimination laws and Portsmouth School Department policies, including those dealing with sexual harassment. The responsibility includes being available to meet with students, parents and/or guardians regarding any sex discrimination concerns or formal complaints. The Title IX Coordinator also tracks complaints to be aware of, and respond to, any *trends* and to ensure that timely and complete investigations of complaints are conducted. Portsmouth School Department is committed to taking any steps necessary to respond to, and prevent, sexual harassment. In addition, the following individuals are also authorized to handle inquiries regarding the non-discrimination policies:

Shawn Donovan, Assistant Principal

Portsmouth High School
50 Andrew Jarvis Drive
Portsmouth, NH 03801
(603) 436-7100

Andrew Korman, Assistant Principal

Portsmouth High School
50 Andrew Jarvis Drive
Portsmouth, NH 03801
(603) 436-7100

Timothy Hodgdon, Assistant Principal

Portsmouth Middle School
155 Parrott Avenue
Portsmouth, NH 03801
(603) 436-7100

Inquiries regarding Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and/or Title II of the Americans with Disabilities Act of 1990 may also, or instead of, may be directed to:

U.S. Department of Education Office for Civil Rights

33 Arch Street, Suite 900
Boston, MA 02110-1491
(617) 289-0111, TTY (877) 521-2172

Additionally, inquiries may also be directed to the:

NH Commission for Human Rights
2 Chenell Drive
Concord, NH 03301-8501
(603) 271-2767

Equal Employment Opportunity
Commission (EEOC)
1 Congress Street, Room 101 10th Floor
Boston, Mass 02114
Tel. (617) 565-3200

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

The mission of the ESOL Program is to ensure that all English language learners are given an equitable, appropriate and academically challenged education. The lack of English language skills is not a barrier to participation in any courses and ESOL classes are credit bearing as noted on page 29.

VISUAL IMPAIRMENTS

Students and/or their parent or legal guardians who have visual impairments should contact the Office of the Principal for assistance in accessing information contained on the School Department web site or written other materials. Please call 436-7100, ext. 2912.

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**CORE VALUES
AND BELIEFS**

Portsmouth High School's core values of Excellence, Community, Commitment, and Leadership provide the cornerstones we strive for as a community of learners. With these core values firmly in place, Portsmouth High School graduates are well-positioned to take on challenges and opportunities in our global society. At Portsmouth High School we believe:

- Students are important and must be challenged in rigorous and relevant ways in order to reach their highest potential.
- Students will strive for excellence in an environment that fosters a strong sense of belonging and creates partnerships between students and adults.
- Students learn best when they explore and contribute to their own education.
- Students are able to achieve in a safe and caring environment where student success is celebrated.
- Students will become life-long learners when taught to think critically, to effectively analyze information, and to be respectful of others.
- Students should have exposure to a rich and broad program of studies, have learning experiences outside of the classroom, and have an understanding of an individual's place in the global environment.

Students at Portsmouth High School will meet or exceed the following 21st Century Learning Expectations in order to be college and career ready upon graduation:

- Academic
 - * Communicate effectively
 - * Think critically
 - * Utilize appropriate tools and information to solve problems
 - * Set personal and academic goals
 - * Approach challenges with creativity and innovation
- Social
 - * Work collaboratively
 - * Work independently
- Civic
 - * Engage in the classroom and the community

**SCHOOL
COUNSELING
SERVICES**

Through a comprehensive developmental school counseling program, counselors assist all students in their academic, personal/social, and career development goals. Counselors meet with students in classrooms, small groups, and individually. Personal, interpersonal and academic needs are considered of the utmost importance.

2018-19 PROGRAM OF STUDIES

Emphasis is placed upon post-secondary planning. Early in the high school program, students are encouraged to investigate a variety of post-secondary opportunities consistent with their interest and aptitudes. Academic strengths and weaknesses are analyzed, and abilities and interests are discussed as the basis for career and educational decision making.

The School Counseling Department utilizes Naviance, a web-based tool, in grades 9-12 to assist all students with the development of their personalized educational and career and post-secondary plans. Through Naviance, students participate in a variety of future planning activities such as personality profiler, a career interest inventory, career and college searches and the development of a resume. Parents are encouraged to log on to their student's personalized Naviance site (<http://connection.naviance.com/portsmouthhs>) and to engage in discussions with their student regarding all future planning activities.

Students and parents are invited to use the services offered by the School Counseling Department at any time during the school year.

IMPORTANT DEADLINES ARE COMMUNICATED TO STUDENTS AND PARENTS THROUGH EMAILS, SCHOOL ANNOUNCEMENTS, AND POSTERS.

GENERAL INFORMATION

The material contained in this booklet has been prepared to assist students in the selection of those subjects best suited to meet their needs and abilities. The program of each student is an individual matter to be planned in collaboration with home and school. Students and parents are urged to consider carefully the information contained here.

The objective of the Program of Studies is to describe the content of individual course offerings and to provide assistance in planning a selection of these courses to meet the needs of each student.

Students are expected to consider carefully their academic background, interests, career and/or educational plans, and the recommendations of their parents, teachers, and school counselors as they choose their courses.

Course descriptions in this Program of Studies are organized alphabetically on a subject basis. Required subjects are listed on page 10. Subjects which are important for specific future plans, special interests, abilities or needs are offered as electives. Students should choose elective courses in keeping with their future plans, and should consult with parents, teachers, and school counselors to assist with this planning.

All courses offered at Portsmouth High School are available to both male and female students.

The hope is that the description of subjects will answer questions as to course content, that this pamphlet will prove helpful, and that students will make full use of the opportunities offered here.

Portsmouth High School operates on a 4 x 4 Block Schedule with some modified blocks during block 1.

POLICY ON COURSE SELECTION AND CLASS CHANGES

Careful planning by each student should result in an appropriate program for each school year. The course selection process requires that all students complete the course selection sheet with all required signatures.

For the remainder of the school year, students may make appointments to review their course selections with their school counselor. Any adjustments, whether based on second semester grades or on change of interests, should be made at this time. Student initiated course changes will not be allowed after the second day of any quarter. Course changes during any quarter will be made only upon the recommendation of a teacher or school counselor, and with phone contact or written approval of the parent.

Students may see his/her counselor to discuss adding or dropping a course prior to the start of that course. Any student initiated change requires a process involving the teacher, department head, parent, and counselor.

These procedures do not prevent school authorities from adjusting students' classes to produce an optimum learning environment.

GRADING SYSTEM

With the exception of courses offered in a modified block, credits are earned by the quarter. A half credit course meets for 45 days in 81 minute blocks. A full credit course meets for 90 days in 81 minute blocks. Students who pass only one quarter of a full credit course will receive a half credit. A class offered in a modified block meets for 90 days for a half credit and 180 days for a full credit.

Parent/guardians please note: Progress reports are posted electronically at the half way point of each quarter. Paper copies can be requested through the guidance office.

Report cards are posted electronically after each quarter (four times during the year). Grades are recorded by letters which indicate the scholastic achievement of the student. The interpretation of these letters is as follows:

A+ - 98-100%	D - 72-74%
A - 95-97%	D- - 70-71%
A- - 93-94%	F - 0-69%
B+ - 90-92%	AU - Audit
B - 87-89%	P - Pass
B- - 85-86%	WP - Withdrew Pass
C+ - 82-84%	WF - Withdrew Fail
C - 79-81%	WM - Withdrew Medical
C- - 77-78%	TR - Transferred within Department
D+ - 75-76%	

2018-19 PROGRAM OF STUDIES

HONOR ROLL

Highest Honors - All A's, carrying at least three (1/2 credit) graded courses
High Honors - A's and B's in any combination, carrying at least three (1/2 credit) graded courses (At least one "A".)
Honors - All B's, carrying at least three (1/2 credit) graded courses (A student may have one "C" if there is at least one "A" to balance it. Only one "C" is allowed.)
Honor roll is determined by the term.

ATHLETIC AND EXTRA-CURRICULAR ACTIVITY ELIGIBILITY

In order to be eligible for athletics all students must meet eligibility requirements as outlined in School Board Policy #IGD. In addition, all students must have passed and received credit for a minimum of three 81-minute blocks (or the equivalent of three 81-minute blocks) of course time during the previous marking term AND be enrolled in and attending three 81-minute blocks (or the equivalent of three 81-minute blocks) of course time in the present marking period to be eligible for athletics. Credits earned in summer school, independent studies and any out-of-school programs do not apply to eligibility. Withdraw failure is considered a failed course.

High School students will be required to meet academic standards established by this policy for participation in extra-curricular activities as follows:

Student participants shall maintain good citizenship.

Student participants must be passing all classes in which they are enrolled and have no more than one grade of D based upon the latest term grades.

In the case of all extra-curricular activities, unless otherwise mandated by New Hampshire Interscholastic Athletic Association (NHIAA) for athletics, students academically ineligible due to grades from the latest quarter may regain eligibility based upon a progress report that meets the eligibility standards.

All extra-curricular activities will be open to all students with open tryouts. Intramural sports shall be encouraged so that all students may have the opportunity to participate.

COURSE LEVELS

In an effort to meet the individual needs of all students, required courses **are grouped according to level.** Students are assigned to levels, grades 9-12, by assessment and/or teacher recommendation based on past performance. The honors level and Advanced Placement (A.P.) courses require an application process described under Honors and A.P. courses. Please see the individual department sections for more information.

The levels are defined as follows:

LEVEL II - APPLIED Applied courses provide students with a solid foundation in essential skills and concepts and help students become more efficient learners. Courses guide students with many practical activities and problem solving challenges to help them prepare for future career and educational goals. Students will improve their written and verbal communication skills and overall organization.

LEVEL III - COLLEGE PREP College prep courses offer students opportunities to do both independent and collaborative work while preparing for more advanced classes in high school and college. Courses offer students problem solving challenges resulting in a deeper understanding of the content area. Students will improve critical thinking, study skills, and analytical skills.

LEVEL IV - ADVANCED COLLEGE PREP Advanced college prep courses are designed for students to have opportunities for self-directed work and analysis of complex concepts. Courses offer students many problem solving challenges and opportunities to explain, generalize, or connect ideas. Students will fine tune their critical thinking skills, study skills and analytical skills and demonstrate mastery of their written and verbal communication skills.

LEVEL V - HONORS AND ADVANCED PLACEMENT (A.P.) Honors and advanced placement courses are designed for students who have shown high academic achievement in a particular discipline in the past. Courses offer students challenging opportunities to apply their understanding of the content area in a new or novel way. Students will analyze, synthesize and evaluate information across disciplines.

CLASS RANK AND PLACEMENT

Class rank is computed for each graduating class at the end of six semesters and a final class rank is computed after the third quarter of the senior year. An unweighted grade point average (G.P.A.) is also computed starting at the end of grade 9.

The grade received in a class multiplied by the weight of that class equals the points earned toward class rank. Class rank is based on grades received in all subjects. **A+**=4.33 points, **A**=4 points, **A-**=3.67 points, **B+**=3.33 points, **B**=3 points, **B-**=2.67 points, **C+**=2.33 points, **C**=2 points, **C-**=1.67 points, **D+**=1.33 points, **D**=1 point, **D-**=.67 points, **F**=0 points.

College Prep courses will receive a weight of 3 and Advanced College Prep courses will receive a weight of 4. Honors and Advanced Placement courses will receive a weight of 5.

HONORS AND ADVANCED PLACEMENT PROGRAMS

It is essential that students continue to challenge themselves to the best of their ability.

Students applying for the first time to sophomore, junior, or senior honors or AP classes will submit a completed application form. Application forms will be available in the spring.

Continuing honors students applying for junior or senior honors or AP classes, a grade of B+ or higher at the end of the course will be expected to complete an **abbreviated application**.

If the student in an honors class has less than a B+ average, he/she must reapply, submitting all necessary elements to the application. If the student is accepted into the program, he/she will sign a contract explaining his/her responsibilities.

Summer assignments: Honors and A.P. English, Social Studies, Science Spanish, French, and Calculus classes may require summer assignments.

Notification of acceptance/non-acceptance: All students will receive a letter of acceptance or non-acceptance within one month of the deadline for admission.

EXTENDED LEARNING OPPORTUNITIES

INDEPENDENT STUDIES

In order for an independent study course to be approved for credit, it must meet rigorous, measurable standards comparable to PHS course competencies. To request and receive credit in independent study, a student must:

1. Meet with a teacher who agrees to be the advisor for the study.
2. Complete Independent Study Form which is available in guidance and which requires description/course outline, the signatures of the teacher, the department head, the principal, a parent/guardian, and the student's school counselor.

All independent studies receive 1/4 credit and are not included in the student's GPA or class rank. No credit will be awarded retroactively.

A student involved in athletics must have at least three regular classes in addition to an independent study. An independent study does not count as one of the three courses towards athletic eligibility.

**COLLEGE
CREDIT AT PHS**

Portsmouth High School provides dual enrollment credit courses to juniors and seniors providing them the opportunity to earn college credit while attending high school. These courses are taught by qualified Portsmouth High School teachers using the syllabus and text of the corresponding course offered at the credit granting institution.

Students may earn college credits at the same time as earning high school credit. In order to receive college credit, tuition fees must be paid prior to the beginning of the course. Tuition is offered at a significant discount and need based scholarships are available. Students successfully completing the high school course receive dual credit; high school credit and college credit simultaneously.

Currently, PHS offers dual enrollment courses through Great Bay Community College, Lakes Region Community College, Southern New Hampshire University and University of Massachusetts-Boston.

Courses offered at Great Bay Community College for dual enrollment are: Introduction to Business, Accounting, Expository Writing, Introduction to Python, Web Development I, Intro to Java, and Object Oriented Programming. Southern New Hampshire dual enrollment courses are: Anatomy and Physiology, and Education Teacher Training I and II. Lakes Region Community College dual enrollment courses are Culinary Arts I & II. Courses offered through University of Massachusetts are Latin IV & V.

**OUT-OF-SCHOOL
CREDIT**

In order to receive credit for an educational program not directly affiliated with Portsmouth High School, the following requirements must be met:

1. Student must be enrolled in Portsmouth High School.
2. The request for credit must be made and approved BEFORE beginning the program.
3. The program must have a formal description including the number of hours, the syllabus, the assessment procedures and a contact person.
4. No credit will be awarded until the student produces a formal assessment document at the completion of the program.

Virtual Learning Academy Charter School (VLACS) is an on-line New Hampshire public high school, free for New Hampshire residents. Students may take courses through VLACS and receive credit. Students must complete the Portsmouth High School VLACS Credit Form.

DRIVER EDUCATION

Driver Education is designed to teach basic driving skills, a knowledge of New Hampshire rules and regulations, and a defensive driving attitude. Heavy emphasis is placed on seat belt use and drug and alcohol awareness.

Driver Education is offered after school, evenings and during the summer through an independent contractor. The course is state approved and 1/4 credit is awarded upon successful completion. There is a fee for the course and more information can be obtained in the main office.

2018-19 PROGRAM OF STUDIES

ADMISSION TO COLLEGE

College requirements vary, and each student must check the admissions requirements of the colleges to which he/she will apply.

The strength of a student's course load will be a factor in the college admissions process. Students planning to attend college should consult with their counselors and teachers for assistance in selecting courses which will help them achieve the desired results. The college counselor works closely with each school counselor on issues of college planning. The college counselor works individually with seniors and second semester juniors concerning future planning.

During the year, many college representatives visit Portsmouth High School. The dates of these visits are posted on Naviance, in the School Counseling Office and are announced regularly. Interested students are encouraged to sign up in the Guidance Office.

The following information can be used as a **guide** to the student who is interested in planning for post-secondary education.

*Guidelines for **most** four year colleges include a **minimum** of:*

- 4 credits of English
- 3 or more credits of Social Studies
- 4 or more credits of Mathematics, including Algebra II
- 3 or more credits of Lab Science, including Biology and Chemistry
- 3 or more credits of a International Language (Level III)

Guidelines for technical institutes and colleges:

- 4 credits of English
- 3 or more credits of Mathematics
- 3 or more credits of Science
- (2 credits in Technical/Career Education recommended)

Specific courses, especially electives, will vary for each student. Students should work closely with their school counselor during the scheduling process.

NEW HAMPSHIRE SCHOLARS INITIATIVE

The New Hampshire Scholars Initiative is focused on increasing the number of high school students who take a rigorous secondary level curriculum designed to strengthen the chances for success in college. The core course of study includes math, science, social studies, language arts, and international language, and is intended to help provide high school students with the academic foundation necessary to succeed in college and beyond. Students are recognized during senior week.

To be designated a NH Scholar, each student in Portsmouth High School will complete, at a minimum, the core high school academic core course of study detailed below:

State Scholars Standard Course of Study

Minimum GPA Requirement: 3.20

- 4 credits of English
- 4 credits of Mathematics
- 3 credits of Science (Biology, Chemistry, and 1 other additional credit)
- 3.5 credits of Social Studies
- 2 credits of International Language

STEM Course of Study

Minimum GPA Requirement: 3.20

- 4 credits of English
- 4 credits of Mathematics
- 3 credits of Science (Biology, Chemistry, and 1 other additional credit)
- 3.5 credits of Social Studies
- 2 credits of International Language
- 1 credit of STEM (chosen from Technology, Engineering, and Computers)

Arts Course of Study

Minimum GPA Requirement: 3.20

- 4 credits of English
- 4 credits of Mathematics
- 3 credits of Science (Biology, Chemistry, and 1 other additional credit)
- 3.5 credits of Social Studies
- 2 credits of International Language
- 2 credits of Arts

**STANDARDIZED TESTING
RECOMMENDATIONS**

The Portsmouth High School counseling department recommends the following sequence for standardized testing:

Freshman Year:

Spring - PSAT 8/9

Sophomore Year:

Spring – PSAT 10

Junior Year:

October – PSAT (the practice SAT)
Spring - SAT Reasoning Test and/or ACT
Spring - SAT Subject Tests as appropriate

Senior Year:

Fall - SAT Reasoning Test and/or ACT
Fall - SAT Subject Tests as appropriate

If you have any questions, please contact your student's school counselor.

2018-19 PROGRAM OF STUDIES

FINANCIAL AID INFORMATION

Financial aid information is addressed at numerous Guidance information sessions and may also be obtained in the Guidance Office. Students have the opportunity to apply for local scholarships as well as college-based financial aid. Local scholarships are announced in the winter each year, they are posted on Naviance and provided to seniors. It is the student's responsibility to seek appropriate information and meet required deadlines.

GRADUATION REQUIREMENTS

26 CREDITS ARE REQUIRED FOR GRADUATION

English	4	credits
Social Studies	2 1/2	credits
Economics	1/2	credit
Mathematics	3	credits
Science	3	credits
Physical Education	1	credit
Computer Course (Computer classes listed on page 21, Yearbook, or Architecture/Engineering)	1/2	credit
Fine Arts Education (Drama, Music, Visual Arts Architecture, or PPMtv Video)	1/2	credit
Health Education	1/2	credit
Electives	<u>10 1/2</u>	<u>credits</u>
Minimum to Graduate	26	

Students shall engage with and apply English and mathematics graduation competencies during every year they are enrolled in high school even if graduation competencies for English and mathematics have been demonstrated.

FOUR YEAR PLAN

Use the sheets on the following pages to plan a tentative four year program that will help you meet your educational and/or vocational objectives. Refer to the College Admission Handbook for more detailed course requirements.

Portsmouth High School Four-Year Education Plan

***FRESHMAN**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2	Geography		Earth Science	Art
3	Physical Science		Math	
4	English 9		Physical Education	

***SOPHOMORE**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2	Math		Ecology	Health
3	Biology		Computer	
4	English 10		American Studies I	

***JUNIOR**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2	Math		Science	
3	English 11		American Studies II Survey or Mini-courses	
4				

***SENIOR**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2	English 12		Social Studies Elective	
3	Economics			
4				

*Courses will not necessarily be scheduled where they are written in on this page. One square = 1/2 credit.
 **Block one could be one 90- minute course or divided into two 45-minute courses.

Portsmouth High School Four-Year Education Plan

WORKSHEET

***FRESHMAN**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2				
3				
4				

***SOPHOMORE**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2				
3				
4				

***JUNIOR**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2				
3				
4				

***SENIOR**

PERIOD	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
1				
2				
3				
4				

Course Descriptions...

Architecture/Design-Build

ARCHITECTURAL DESIGN COURSES MAY BE TAKEN TO SATISFY THE FINE ARTS AND/OR COMPUTER REQUIREMENT.

Students interested in pursuing careers in architecture, engineering, construction, interior design, urban planning, landscape design and real-estate would benefit from courses offered in the Architecture/Design-Build Program.

The Architecture/Design-Build Program combines manual drawing and modeling skills with computer design and presentation skills in order to prepare students for life in an ever-changing technological society. These courses are conducted in a studio environment that replicates collegiate and industry design environments and exposes students to the variety and scope of skills, concepts and methods utilized in the creation of architecture.

Not all students enrolled in architecture courses are interested in becoming architects; many students choose to explore courses offered in the Architecture/Design-Build Program as electives based on personal interests or to satisfy graduation requirements. However, students interested in college majors and careers such as **architecture, engineering and construction** may earn a two-year program certificate of completion in Architecture/Design-Build by following a course track that culminates with the program capstone course; Design Studio.

ARCHITECTURE 101 **Grades 9, 10, 11, 12** **Course No. 8861, 1/2 Year** **1.00 Cr**

Students in Architecture 101 will explore the concepts and techniques of architectural design through a variety of sketching, model building and computer design activities. Emphasis is placed on developing architectural awareness while gaining the skills used to communicate design ideas and create architecture. Students will be introduced to the design process used by architects to create buildings. Students put their design skills into practice with the design of a vacation home using Chief Architect home design software. Throughout the course, emphasis will be placed on developing presentation design skills to effectively communicate technical and non-technical information using drawings and presentation graphics.

MAKERSPACE-Wood **Grades 10, 11, 12** **Course No. 8911, 1/2 Year** **1.00 Cr**

The MAKERSPACE Wood course is designed to expose students to general woodworking practices and entrepreneurial concepts that serve as foundational knowledge and skills in the areas of Design-Build, Construction and Manufacturing. Emphasis is placed on acquiring skills in the safe use of the tools, machines and processes to manufacture wood products.

In each class students will develop a business enterprise to manufacture and sell a wood product(s). The student enterprise will conduct a product analysis to select a viable product. The product analysis will include a production task analysis and creation of a manufacturing flow chart establishing labor needs, and a product cost analysis to establish production and sales goals. With a product selected and goals established, students will develop a marketing and sales strategy, formulate a production schedule, assign production responsibilities to manufacture and distribute their product.

INTERIOR DESIGN **Grades 10, 11, 12** **Course No. 8820, 1/2 Year** **1.00 Cr**

Prerequisite: Architecture 101

3D Interior Design is a computer based course that offers students interested in architecture and interior design the opportunity to utilize Chief Architect design software to complete home design projects and create photo-realistic 3D visualizations of home interiors. Learn how to customize a home's interior with functional and aesthetic elements that turn ordinary spaces into extraordinary spaces with the use of custom interior architectural details and stylistic décor.

DESIGN-BUILD **Grades 10, 11, 12** **Course No. 8790, 1/2 Year** **1.00 Cr**

Prerequisite: Architecture 101 and Makerspace Wood OR Interior Design

In the design-build course students work in teams consisting of architects, interior designers, engineers, contractors and business managers to formulate their own design-build company and design, engineer and construct a sustainable structure to meet the needs of an environmental conscious real estate developer. Students will develop "blueprints" for a structure using chief architect home design software and will see their designs realized by constructing scaled structural and presentation models of their building. The design of the sustainable structure requires teams to solve a variety of engineering design challenges including; site planning, passive/active solar design, structural systems, materials and environmental systems (water supply/waste, heating, electrical and lighting). At various phases throughout the project student teams will present marketing plans to investors that illustrate the viability of their design.

DESIGN STUDIO **Grades 11, 12** **Course No. 898, 1/4 Year** **.50 Cr**

Design Studio may be taken more than once for those students who want to continue to refine and expand their skills in architectural design.

Prerequisite: Design-Build

Design Studio is meant to serve as a culminating experience that allows students the opportunity to put into practice the skills and knowledge gained in previous courses. The studio environment individualizes each student's education in architecture and design so that their talents, needs and interests relative to architecture and engineering are addressed and fostered. Students work independently on projects while the instructor facilitates and directs learning through individual conferences and critiques with the student.

Design Studio projects and areas of study are determined by individual student interest in consultation with the instructor. Examples of areas of study are: **Residential Design, Interior Design, Sustainable Design, Landscape Design, Model Building, Alternative Energy Systems.**

Automotive Technology

This National Automotive Technicians Education Foundation (NATEF) certified program features a curriculum that is recognized throughout the industry. The curriculum is designed to equip students with basic skills for entry-level employment and for continuing education. This program also provides opportunities for articulation with post-secondary schools. The instructor is certified by the National Institute for Automotive Service Excellence (ASE), which is the same certification required for post-secondary occupations with emphasis placed on a career as an automotive technician. Diagnostic and repair skills, safety and employment skills are taught in keeping with the automotive technology competencies required by today's automotive industry. A course of study that includes two-years of formal mathematics (algebra and geometry), and one year of Applied Physics is recommended.

At the end of the two-year program, students will receive a Certificate of Completion of a NATEF certified program and may choose to enter the work arena or to continue their automotive studies at the post-secondary level.

CAR CARE FOR EVERYONE **Grades 9, 10, 11, 12**
Course No. 905, 1/4 Year **.50 Cr**
(preference given to grades 9 and 10)

This class from the Automotive Technology Program is intended for any student, male and female, who owns or drives a car. Geared toward the average consumer, this course will teach you everything you need to know about your car in order to keep it in tiptop shape and performance level. In nine weeks you will learn the ins and outs of car ownership from how to purchase a car to dealing with roadside emergencies and everything in between. Never again feel uninformed! Change your own oil, check your own fluids, and change your own tires. Learn it all from the experts!

AUTOMOTIVE PRINCIPLES **Grades 9, 10, 11, 12**
Course No. 906, 1/4 Year **.50 Cr**
(preference given to grades 9 and 10)

A hands-on introduction is provided in the fundamental principles of automotive systems. Hydraulic, pneumatic, electric, and mechanical systems will be explored as they relate to automotive operations. Students will learn what service and maintenance a modern vehicle requires through related theory and laboratory experience with emphasis on shop equipment, safety and tools. This course is recommended prior to taking Automotive Technology I.



AUTOMOTIVE TECHNOLOGY I **Grades 10*, 11, 12**
Course No. 907, All Year **2.00 Cr**

In the first year of our nationally accredited NATEF® program, students will engage in a hands-on approach to learn how today's vehicles operate and the knowledge it takes to repair them. Students will have full access to our outstanding facility and can expect to gain a well-rounded knowledge base for use in the future. Covered areas of MLR (Maintenance and Light Repair) include: Engine Repair, Automatic Transmission and Transaxles, Manual Drive Train and Axles, Suspension and Steering Systems, Brakes, Electrical/Electronic Systems, Heating and Air Conditioning, and Engine Performance.



AUTOMOTIVE TECHNOLOGY II **Grades 11*, 12**
Course No. 908, All Year **2.00 Cr**

Prerequisite: Automotive Technology I

In the second year of this NATEF® certified program, students will continue to reinforce the knowledge and skills learned in Automotive Technology I. This course offers a more in-depth approach to the eight areas of MLR (Maintenance and Light Repair) and presents students with curriculum related tasks and working conditions similar to those found in the automotive industry.

***Incoming 10th/11th graders may apply for admission. See Guidance Counselor for application.**

Business/ Entrepreneurship

Students who are interested in business management, accounting, finance, marketing, sales, and entrepreneurship are encouraged to participate in the Business/Entrepreneurship program. Students who complete this program will possess the entry level skills needed to be successful in college and the business world. Students will gain a solid foundation in business through the development of effective presentation skills, networking ability using social media, and a solid business plan to show colleges and employers.

CAREERS IN BUSINESS Course No. 817, 1/4 Year

Grades 9, 10
.50 Cr

This course will introduce students to the world of business and the variety of career pathways available. Topics will include but not be limited to hospitality and tourism management, entrepreneurship, management, accounting and finance, marketing, and sales. A goal of this course is for students to recognize if they are interested in a career in business and in pursuing the Business/Entrepreneurship program.

INTRODUCTION TO BUSINESS** Grades 10*, 11, 12 Course No. 835, 1/2 Year 1.00 Cr

This course is a prerequisite for all other business courses.

****College Credit Available through Great Bay Community College.**

Note: This course will satisfy the Economics requirement.

This is an introductory course designed to provide students with a basic understanding of the structures and operations of business and an awareness of social and ethical responsibility as it relates to the environment, consumers, employees, and investors. An appreciation of the global economy will also be explored.

ACCOUNTING** Course No. 832, 1/2 Year

Grades 11, 12
1.00 Cr

Prerequisite: Introduction to Business

This course will prepare students to understand the language of business that is accounting. Students will study owner's equity, assets, liabilities, revenue and expenses. Students will study journalizing transactions, preparing a trial balance, accounting adjustments, closing entries, inventory, accounts receivable and payable, cash receipts, disbursement and bank reconciliation.

****College Credit Available through Great Bay Community College.**

MARKETING AND SALES

Course No. 821, 1/2 Year

Grades 11, 12

1.00 Cr

Prerequisite: Introduction to Business

This course will prepare students to understand the foundation of marketing and sales. Students will learn the four elements of the marketing mix and apply that information to develop a proper marketing plan. In addition, students will learn the art of persuasion by learning the core components of the sales process: prospect, engage, acquire, and keep. Students who are creative and enjoy researching the consumer mind will enjoy this course. This is a project-based course that assists students in the areas of teamwork, public speaking, and business.

ENTREPRENEURSHIP

Course No. 818, 1/2 Year

Grades 11, 12

1.00 Cr

Prerequisites: Introduction to Business, Accounting, Marketing & Sales

This is the final course in the Business/Entrepreneurship program. This is a writing intensive course where students will use all prior knowledge in business to write a comprehensive business plan and present their business idea to the class/guests. Students will have the option of competing in the school's Business Plan Competition for which the Seacoast Rotary Club has offered scholarships for the winners. Students will understand the key elements of a business plan, where to seek help for start-up funds, and how to present effectively.

Students are encouraged to join the PHS Business Club while enrolled in this program.

***Incoming 10th graders may apply for admission. See Guidance Counselor for application.**

****College Credit - Running Start:** Introduction to Business and Accounting students will have the opportunity to participate in the Running Start program and earn three college credits through the Great Bay Community College of New Hampshire. Tuition, offered at a significant discount, is paid to the college for these credits. **Students must be juniors or seniors to be eligible for Running Start credit.**

CTE Career Services

The CTE Career Counselor at Portsmouth High School provides services to all students interested in preparing and planning their futures. Students may visit the Career Counselor in the Guidance Office to investigate careers, colleges, and explore workplace opportunities.

Services include:

- Seminar-based activities: Collaboration units with School Counseling and Academic Departments, career units for 2-year state sanctioned recruitment tours of CTE programs for grades 8-10.
- Career and college planning: Virtual Job Shadow interactive career exploration. Career and college resumes, CTE scholarship assistance, cover letter, job application assistance and student job board.
- Work-based learning activities and Cooperative/Work Education Programs described below.

COOPERATIVE EDUCATION .50 Cr./Sem.

The Cooperative Education Program provides on-the-job experience that is supplemental to classroom and laboratory instruction. A student must be enrolled in one of the following Career Technical Education Programs:

- Architecture/Design-Build
- Automotive Technology
- Business/Entrepreneurship
- Computer Science/Programming
- Culinary Arts
- Education & Teacher Training
- Welding Technology

Evaluation forms are completed by the employer at the end of the quarter. Unsatisfactory evaluations from employer will result in a failing grade and dismissal from the program.

WORK EDUCATION .50 Cr./Sem.

The Work Education Program is designed for any student who requests credit for part-time employment and is not eligible for Cooperative Education credit. This experience is monitored and evaluated by school staff and employers. If performance is acceptable to the employer and coordinator, the student will earn 1/4 credit for each academic quarter worked. Evaluation forms are completed

by the employer at the end of the quarter. Unsatisfactory evaluations from employer will result in a failing grade and dismissal from the program.

CTE AND CAREER INTEREST INTERNSHIPS

CTE INTERNSHIPS .50 Cr./Sem.

Once a student has completed a full year of a CTE program and is enrolled in the second year of that program, students may request to perform an internship within that field of study. The student must have the recommendation of their teacher. Student's CTE program grades, attendance and discipline records will be taken into consideration.

CAREER INTEREST INTERNSHIP .50 Cr./Sem.

These internships are offered to non-CTE students who have taken all of the courses offered at PHS in preparation for a career field. A teacher and/or school counselor must refer students. Student's academic records, attendance and discipline records will be taken into consideration.

Computer Courses

All students must successfully complete a minimum of one-half credit of computer science or computer-related coursework to graduate from PHS.

NOTE: In addition to the following computer classes, Architectural Design, PPMtv Video and Yearbook class may be taken to satisfy the computer requirement.

MEDIA TECHNOLOGY **Grades 9, 10, 11, 12**
Course No. 660, 1/4 Year **.50 Cr**

In this class, students will learn about media and technology literacy, create iMovie public service announcements, use audio software to record, edit, and produce interviews, create graphics using Adobe Illustrator and Photoshop, animate with Toon Boom Studio, try simple programming, use Numbers to make a personal budget, create a Keynote presentation, format using Pages, and collaborate using cloud-based software.

WEB PAGE DESIGN **Grades 9, 10, 11, 12**
Course No. 671, 1/4 Year **.50 Cr**

Students will learn basic web design, including topics such as: content, accessibility, layout, navigation, color, typefaces, and graphics using HTML, XHTML, and CSS. Graphics and animations will be made using Adobe Photoshop, Fireworks, and Flash. Students will explore digital citizenship issues including copyright law, citing sources, avoiding plagiarism, and practicing internet safety. Client web sites will be published online.

COMPUTER GRAPHICS **Grades 9, 10, 11, 12**
Course No. 672, 1/4 Year **.50 Cr**

Students will learn about the elements of art and principles of design. A design notebook will be kept, and reading and writing assignments will explore graphic design concepts and challenges. Adobe Photoshop and Adobe Illustrator will be used to design, manipulate, process, and edit original photographs and illustrations. Emphasis will be placed on communication and collaboration with real-world clients to solve design challenges. A digital portfolio will be created by each student and published online.

ADVANCED GRAPHICS AND WEB DESIGN **Grades 9, 10, 11, 12**
Course No. 673, 1/4 Year **.50 Cr**

Prerequisite: Web Page Design and Graphic Design

Students will use tools to create and manipulate specialized, web-based graphics through the use of Adobe Fireworks and Flash. As they learn a web design program, Adobe Dreamweaver, students will also implement the appropriate processes required for web-site development. The final projects will require students to publish a portfolio web site as well as design and publish a web site for a client.

COMPUTER ANIMATION I **Grades 9, 10, 11, 12**
Course No. 676, 1/4 Year **.50 Cr**

Students will learn about the principles of animation, create animations to show their understanding of each principle of animation, and explore historical methods of making

animations. A variety of animation software, storyboards, time lines, sound tracks and imported graphics will be used. Students will work individually and in groups to create several animations that will be published online.

GEOGRAPHIC INFORMATION SYSTEMS TECHNOLOGY & APPLICATIONS **Grades 9, 10, 11, 12**
Course No. 688, 1/4 Year **.50 Cr**

In this class, students will learn about Geographic Information Systems Technology using ESRI ArcView GIS, create projects that address real-world community and global issues, complete problem solving exercises, and integrate data with maps to visualize problems and suggest solutions. After learning the basics of the technology, students will use digital mapping, geography, spatial analysis, and databases to design their own research projects and apply their skills to create their own projects both independently, collaboratively, and for clients.

INTRODUCTION TO MUSIC TECHNOLOGY USING APPLE'S "GARAGEBAND" **Grades 9, 10, 11, 12**
Course No. 679, 1/4 Year **.50 Cr**
(preference given to grades 11 and 12)

Students are introduced to the various hardware and software components located in the music technology lab. Using Apple's "Garageband" combined with midi-controllers from "M-Audio" and a fully networked keyboard lab, students will learn how to electronically compose, edit, record and mix their own musical creations. Students will also learn the basics of "podcasting" as a means to share their work with a larger virtual audience. While a musical background is not a prerequisite, it is certainly beneficial. Students who successfully complete this course would be eligible for independent study consideration in advanced recording utilizing the various school concerts as source material. Space permitting, grades 9 and 10 may be considered per permission of instructor. Course may be taken to satisfy computer or fine arts requirement.

iOS APP DESIGN AND DEVELOPMENT **Grades 9, 10, 11, 12**
Course No. 680, 1/4 Year **.50 Cr**

NOTE: This course is intended for technology savvy students with some prior programming experience.

In this class, students will use Cocoa or Objective-C, the iOS programming language, in Xcode, the Mac developer platform, to learn and apply knowledge of syntax, libraries, and best practices in designing and coding an iOS app. Emphasis will be placed on designing unique apps using fundamental iOS design patterns and techniques, data modeling, developing an intuitive user interface, utilizing iCloud storage, and performance optimization.

Additional Computer Offerings: Additional offerings in Computer may be taken on-line via the Virtual Learning Academy. Courses available:

- **Computing for College and Careers**

Students interested in exploring this option should contact their School Counselor for more information.

Computer Science/Programming

The computer sciences offer some of the most widespread and fastest growing careers. Students enrolled in these courses will learn about programming and coding using a variety of languages including Python and Java. These courses are part of Great Bay Community College's software development program as well as Portsmouth High courses.

INTRODUCTION TO COMPUTER SCIENCE *Grades 9, 10, 11, 12*
(preference given to grades 9-10)
Course No. 649, 1/4 Year .50 Cr

Are you interested in computer programming, do you want a better understanding of how computers work? This introductory course will cover fundamentals like using word processing and spreadsheets in a cloud based environment to more advanced topics like creating a game app you can play on your phone. In between, learn the fundamentals of PhotoShop, privacy and security issues in the digital age, and binary and hexadecimal number systems. This course will also cover how the internet works and you will learn how to build a simple web page with HTML and CSS. In our history unit learn why Charles Babbage is considered the "Father of Computers" because of the machine he built in 1833. Also, learn about the "Mother of Programmers" Ada Byron, the Countess of Lovelace, who started laying the groundwork for programming principles over 170 years ago. In an age when everyone is walking around with a computer in their pocket, how can you afford to not take this class?

INTRODUCTION TO OBJECT ORIENTED PROGRAMMING** *Grades 10*, 11, 12*
Course No. 689, 1/2 Year 1.00 Cr

Learn to program for modern systems and computing environments using the visual and interactive MIT App Inventor programming IDE. This intuitive web based programming language makes learning the fundamentals of programming easy and fun. Emphasis throughout the course is to make the work of programming interesting, enjoyable and relevant to modern software design, development and implementation. Students focus on real programming tasks while learning the relevant theory and concepts along the way. Skills acquired in the course will prepare students for the further study in software development or in areas of technology where programming logic is needed such as robotics, hardware system design and networking. If you have dabbled with coding for fun, or have had an interest in exploring coding for the first time, then this course is definitely for you.

****College Credit Available through Great Bay Community College**

INTRODUCTION TO PROGRAMMING WITH PYTHON** *Grades 10*, 11, 12*
Course No. 650, 1/2 Year 1.00 Cr

Prerequisite: Introduction to Object Oriented Programming

This course will take the skills and concepts you learned using the MIT App Inventor and apply them to the powerful

Python programming language. The course will focus on planning and organizing programs as well as the grammar of the Python programming language. The course will also cover topics in object oriented programming graphical user interfaces, data structures and basic algorithm analysis.

****College Credit Available through Great Bay Community College**

WEB DEVELOPMENT I**
Course No. 651, 1/2 Year

 **Great Bay**
 Community College
Grades 10*, 11, 12
1.00 Cr

Prerequisite: Introduction to Object Oriented Programming

In this course, students will gain knowledge of the web site development process and learn how to develop web applications that meet the current W3C standards. Students will study in detail HTML, syntax and will develop well-informed and valid web documents. Students will learn how to manage web presentation, layout and design using CSS. Basic JavaScript and jQuery will round out the technologies, allowing students to create modern web applications.

****College Credit Available through Great Bay Community College**

JAVA PROGRAMMING**
Course No. 690, 1/2 Year

 **Great Bay**
 Community College
Grades 10*, 11, 12
1.00 Cr

Prerequisite: Introduction to Object Oriented Programming

The purpose of this course is to provide a solid foundation in the Java programming language. Program planning, object oriented design, development/implementation, and Java language syntax will be emphasized. This course will prepare students for advanced study of the Java programming language as well as introduce students in other fields of computer study to general object programming. Students will become familiar with modern development environments such as JGrasp, BlueJay and Android Studio. Students focus on real programming tasks while learning the relevant theory and concepts along the way. The course will culminate with a final project of either an android app or other Java application based on individual student interest.

****College Credit Available through Great Bay Community College**

****College Credit-Running Start:** Students will have the opportunity to participate in the Running Start program and earn three college credits through the Community College System of New Hampshire for each course. Tuition, offered at a significant discount, is paid to the college for these credits. Students must be juniors or seniors to be eligible for Running Start credit.

***Incoming 10th graders may apply for admission. See Guidance Counselor for application.**

Culinary Arts

The Food Service industry is an exciting, dynamic and rewarding field that offers a variety of opportunities. The two year program offers a broad range of curriculum based learning activities as well as practical experience in cooking, baking, and related restaurant functions. Students completing the program will be prepared for either immediate employment and/or the continuance of their education in a Culinary Arts or Food Service Management school. Valuable additional experience may be gained through the Cooperative Education program.

Students considering food service as a career are encouraged to take at least two years of mathematics, biology, chemistry, and the appropriate communication courses. Accounting, management, and Spanish or French are also valuable courses to take for this career. Students earn a two-year certificate upon completion of the program and have completed service safe training.

CULINARY 101 **Grades 9, 10, 11, 12**
Course No. 837A, 1/4 Year .50 Cr
(preference given to grades 9, 10)

In this exciting fast paced, hands on class, students will discover the secrets to the basics of culinary preparation and nutritiously prepared foods in a professional kitchen under close supervision to ensure safety, and excellent sanitation skills. Whether students are interested in entering the two-year culinary arts program or simply want to learn the fundamentals of cooking delicious and nutritionally balanced food, this course will provide a comprehensive overview of the world of food preparation. Course topics will include the preparation of soups, sauces, salads and sandwiches, vegetables and starches, comfort foods, entrées, bread making, desserts and many other exciting culinary preparations by a certified Chef.



CULINARY ARTS I** **Grades 10*, 11, 12**
Course No. 837, All Year 2.00 Cr

Culinary Arts I is the first of our two year nationally certified Pro Start® culinary program to teach proficiency in fundamental skills required for a career in the food service industry while learning in a professional kitchen. Content areas covered will include: workplace safety, sanitation, mise en place and culinary vocabulary, principles of cooking methods, introduction to baking and pastry, recipe costing,

service and management essentials. Employability skills including punctuality, professionalism, personal hygiene, ability to work as part of a team, and the ability to follow instructions are an important focus of the course.

****College credit Available through Lakes Region Community College**



CULINARY ARTS II**
Course No. 838, All Year

Grades 11*, 12
2.00 Cr

Prerequisite: Culinary Arts I

This course is the second year of our two year nationally certified Pro Start® culinary program designed to apply the skills acquired in Culinary Arts I in the production of food in a commercial kitchen. Greater emphasis will be placed on learning and reinforcing advanced skill competencies in all areas of the curriculum including: principles of cooking methods, baking and pastry, Serv Safe® certification, cost control, nutrition, management, purchasing and inventory, marketing, plate presentation and flavor profiles. Career and educational opportunities in the food service industry will be explored in greater detail.

Students, who successfully complete the two year culinary arts program, pass the Pro-Start® national certification test and meet required minimum industry work hours will receive Pro Start® Certification. Students will also have the opportunity to receive Serv Safe® certification a national industry certification.

****College credit Available through Lakes Region Community College**

***Incoming 10th graders may apply for admission. See Guidance Counselor for application.**

****College Credit-Lakes Region Community College:** Students successfully completing the two-year program are eligible to earn college credits through the Lakes Region Community College. Tuition, offered at a significant discount, is paid to the college for these credits. Students must be juniors or seniors to be eligible for college credit.

Education & Teacher Training

The Education and Teacher Training program is designed to provide students contemplating a career as a teacher or in any occupational area that focuses on children, with the knowledge, attitude, behaviors and skills required to be effective in a school setting or in the wider community. The program offers practical experience at the Little Clipper Preschool in which classroom instruction is applied in a real situation. The program offers students completing the two-year sequence of study an opportunity to explore various levels of teaching through internships. Students may receive Red Cross Infant/Child CPR certification.

EARLY CHILDHOOD DEVELOPMENT

Grades 9, 10, 11, 12

Course No. 845, 1/4 Year-1st or 3rd Qtr. .50 Cr
(preference give to grade 9, 10)

Caring for children is one of the most rewarding and challenging experiences. It is a major responsibility which requires preparation. This course will provide information on prenatal development, normal growth, and development of infants and toddlers. Birth defects, guidance, discipline and playing with children are also covered. "Baby Think it Over" is a realistic doll which each student will take home to experience parenting.

PARENTING AND FAMILIES TODAY

Grades 10, 11, 12

Course No. 846, 1/4 Year-2nd or 4th Qtr. .50 Cr
(preference given to grade 10)

This course enables students to examine the diversity of families, the roles and responsibilities of parenting, parenting methods, communication skills and understanding how families are an integral part of our community. Guest speakers, field trips, research and writing projects covering parenting issues help students to understand the importance of a healthy family and parent.

EDUCATION AND TEACHER TRAINING I

Grades 10*, 11, 12

Course No. 853, All Year 2.00 Cr

Enrollment in Early Childhood Development is highly recommended prior to taking this class.

This course is designed for students interested in pursuing a career in education or related field working with children. Education and Teacher Training I will introduce students

to classroom instruction which includes lecture notes, handouts, projects and hands-on activities. Students divide their time equally between classroom instruction and student-teaching in the laboratory school, Little Clipper Preschool. Students are required to compile a portfolio demonstrating proficiency in each program competency. ****College credit Available through Southern NH University**

EDUCATION AND TEACHER TRAINING II**

Grade 11*, 12
2.00 Cr

Course No. 854, All Year

Prerequisite: Education and Teacher Training I

Students entering Education and Teacher Training II are expected to have mastered or become proficient in the basic teaching skills learned in Education and Teacher training I. Students divide their time between classroom instruction, student teaching in the Little Clipper Preschool and participation in internships at other educational levels such as elementary school, middle school and high school. Instructional units include curriculum planning using Understanding by Design, Special Education, advanced instructional practices, and observation skills. Students will be required to compile a portfolio demonstrating proficiency in each competency as well as taking on the role of preschool teacher for one week.

Membership in Educators Rising is an integrated component of the Education and Teacher Training program. ****College credit Available through Southern NH University**

***Incoming 10th graders may apply for admission. See Guidance Counselor for application.**

****College Credit-Southern NH University:** Students successfully completing the two-year program are eligible to earn 13 college credits through Southern New Hampshire University. Tuition offered at a significant discount, is paid to the University for these credits.

English

Students must complete one credit of English during each school year. Courses are leveled. Students are assigned to levels based on teacher recommendations on past performance. Students applying for the first time to sophomore, junior, or senior honors or AP classes must submit an application form.

ENGLISH 9 **Grade 9** **Required**

The freshman program, which explores the theme of "Celebration of the Individual," emphasizes literary genres and a varied writing agenda, the center of which is the writing process.

Writing Component **.50 Cr** ***1/4 Year***

The writing component of freshman English involves the study of the writing process as students begin their four-year PHS portfolios. Students will learn various methods of pre-writing, as well as drafting, revision strategies, editing techniques, and conferencing skills. Much of the writing done in grade 9 is creative in nature, as students begin to find their own voice in writing. Students are expected to share their work with the class. Grammar and language skills will be addressed through student writing. Greek roots and prefixes will also be studied.

Literature Component **.50 Cr** ***1/4 Year***

The literature component of freshman English includes a broad overview of the genres: novel, short story, drama, poetry, essay. Selections range from classical works to contemporary pieces. Works of various authors from around the globe will be studied. Emphasis is on understanding and enjoyment of literary works and on basic critical analysis. Appropriate skills such as word study and understanding of some basic literary concepts complement the study of the selections.

ENGLISH 10 **Grade 10** **Required**

The sophomore program explores the topics of loyalty, human nature and compassion as students concentrate on world literature with British components. Writing includes both narrative and expository modes.

Writing Component **.50 Cr** ***1/4 Year***

Writing is an important part of the sophomore English program. Narrative and expository skills are strengthened through various creative and research assignments. Grammar study reinforces the mechanics, usage, and variety of sentence structure appropriate to assigned writing.

Literature Component **.50 Cr** ***1/4 Year***

The literature component of sophomore English includes analysis of the major genres through reading important world authors, with a special emphasis on British and world writers. The goals are enjoyment, understanding, and further development of critical skills. Vocabulary study includes words derived from Latin and more advanced terminology to discuss literature.

ENGLISH 11 **Grade 11** **Required**

The junior program, which explores the theme of "Rights and Responsibility," focuses on American literature and persuasive writing.

Writing Component **.50 Cr** ***1/4 Year***

The writing component of junior English places increasing emphasis on expository skills and the development of written argument. The literary essay is studied as well as practical writing forms. The grammar study focuses on selective review of mechanics and usage and introduces more complex syntactic structures.

Literature Component **.50 Cr** ***1/4 Year***

Works studied in the literature term are almost exclusively American. The approach is usually chronological with emphasis on major authors of each literary period. Word study continues, but the emphasis in skills development is on aspects of critical analysis.

English

ENGLISH 12

Grade 12

Required — See Below

The following listings are half-credit courses. In order to receive one (1) full credit for English 12, students must select two courses to be taken during their senior year. **It is recommended that students take one writing and one literature elective.**

If a student wishes to take a third English course, he/she must do so through a school counseling conference. These additional courses will then be scheduled on a space available basis - and only after all other scheduling has been completed. Only seniors receive required senior English credit.

LEVEL II APPLIED ENGLISH COURSES

Writing Elective

CREATIVE WRITING

Grade 12

Course No. 162, 1/4 Year

.50 Cr

Students will work to improve skills while receiving individual instruction using the writing process. The various genres will be taught and extended projects will be undertaken, but the emphasis will be on daily journals, weekly writing assignments, and building a portfolio.

GRAMMAR AND WRITING SKILLS

Grade 12

Course No. 142, 1/4 Year

.50 Cr

Grammar and Writing Skills is recommended for seniors who wish to strengthen their knowledge of grammar and basic sentence structure. Spelling, punctuation, capitalization, agreement, and usage are studied with a view toward improvement of basic writing skills.

Literature Electives

REAL WORLD ENGLISH

Grade 12

Course No. 152, 1/4 Year

.50 Cr

This course is for students who want to learn the English skills often needed outside the classroom. They will learn to read and understand legal and workplace documents, such as rental agreements, loan applications, warranties, and job

applications. They will also learn to understand advertising and how to "read between the lines." In addition, to be better able to detect and avoid them, students will study scams, including those done at home, on the telephone, and on the Internet.

GRAPHIC NOVELS

Grade 12

Course No. 1820, 1/4 Year

.50 Cr

In this course students will study the visual and literary art form known as comics or, more accurately, sequential art, focusing on the long-form graphic novel. Comics and graphic novels have increasingly become part of our culture, and the ability to extract meaning for them is an important skill. Through the interplay of pictures and text in graphic novels including *Watchmen* by Alan Moore and Dave Gibbons, selections from the work of Mark Millar, Art Spiegelman's *Maus* and Will Eisner, students will study the use of literary devices such as narration, plot structure, mood, tone, symbolism irony, metaphor, dialog, character development, grammar, punctuation as well as themes, conflict and vocabulary. There will be regular quizzes, journal entries on the reading, short projects exploring some of the comic book conventions, and a final project where students will create their own sequential art story utilizing words and pictures. ***Students may contract for level III.**

LEVEL III COLLEGE PREP COURSES

Writing Electives

JOURNALISM

Grades 9, 10, 11, 12

Course No. 173, 1/4 Year

.50 Cr

This course is an introduction to journalism with an emphasis on news, features, sports, and editorial writing. Other concepts covered include press law, investigative reporting, 21st century journalism, and newspaper ethics. Students will publish online articles for the high school newspaper during this course. Journalism is open to all students. Underclassmen may take this course in addition to their English requirement.

PUBLIC SPEAKING

Grades 11, 12

Course No. 193, 1/4 Year

.50 Cr

This course will present specific techniques that will help students learn the skills needed to become confident public speakers in many different situations. Students

English

will deliver a variety of speeches. Juniors may take this course as an elective in addition to the required English 11 course. When taken by juniors, this course does not fulfill the Senior English requirement.

THE MEMOIR

Course No. 141, 1/4 Year

Grade 12

.50 Cr

Flannery O'Connor said that anyone who has survived childhood has enough material to write for the rest of his or her life. Everyone has a personal story worth telling, something fascinating about their life, whether it's a story of sorrow, triumph, joy, or love. As human beings we need to be heard, we need to share these significant moments and bring them to life on the page. This course is designed for students with a passion to write and read pieces of creative non-fiction in a variety of genres. We will work together crafting these stories that have shaped you giving them literary purpose. ***Students may contract for level IV.**

Literature Electives

FILM STUDIES I

Course No. 153, 1/4 Year

Grades 11, 12

.50 Cr

How are films made? What makes them good? This class will analyze how films are put together and how technology and a creative director shape modern films. Students will screen a variety of genres, do an independent project and work collaboratively to create two short films. Classwork will consist of screenings, discussions, response journals and exams. Juniors may take this course as an elective in addition to the required English course. When taken by juniors, this course does not fulfill the senior English requirement.

THE HERO'S QUEST

Course No. 171, 1/4 Year

Grade 12

.50 Cr

Most fictional heroes go on quests or journeys that follow a pattern that is found in hero myths around the world. In this course, students will explore how this pattern still exists in today's short stories and films. They will also examine the role of the hero in society past and present, as well as why these stories are so widespread and still commonly used. Using this pattern, students will write a short story, show how it is found in other short stories and films, and will come to understand how this pattern fits into their own lives.

HOLOCAUST STUDIES

Course No. 163, 1/4 Year

Grades 11, 12

.50 Cr

This interdisciplinary 1/2 credit course will be offered jointly through the English and Social Studies departments to juniors and seniors. Seniors may take this course to fulfill .50 required English credit. Juniors may take this course for elective credit.

Through various pieces of literature, students will explore how the Holocaust impacted teenagers and their families immediately prior to and during WWII. Students will also view films connected with the Holocaust in order to better understand how both Holocaust victims and the general population of Europe were affected by Nazi doctrine. Students will connect their own pieces of writing with the literature and films in order to have a better understanding of this profound time period during the 20th Century. When taken by juniors, this course does not fulfill the Senior English requirement.

LYRICS AS LITERATURE IN THE 1960'S

Course No. 1430, 1/4 Year

Grade 12

.50 Cr

This course will explore the literary, historical, and cultural value of 1960's song lyrics. In order to prepare, we will spend two weeks examining earlier influences, including African and European folk music, as well as artists such as Woody Guthrie, Leadbelly, Robert Johnson, Hank Williams, and Chuck Berry. We will then explore various trends and genres as we proceed through the 1960's, including the impact of the pre-British Invasion years, the Beatles, Bob Dylan and the folk revival, protest songs, Motown and soul, the psychedelic era, and the singer-songwriters of the early 1970's. Companion poetry and prose will be included. The course will end with an examination of how this unique and dynamic era in lyrical composition continues to influence the song writing and literary values of today's broader culture. ***Students may contract for Level IV.**

LEVEL IV ADVANCED COLLEGE PREP COURSES

Writing Electives

CREATIVE WRITING - ADVANCED

Course No. 144, 1/4 Year

Grade 12

.50 Cr

The purpose of this course is to develop further narrative and descriptive skills which have already been established

English

in the first three years through English courses. Students selecting this course should be seriously interested in developing their ability to write clearly and concisely. Logical development of plot, character, and theme will be emphasized as well as experimentation with most genres. Students will complete a term project. Individuality will be encouraged, but not to the detriment of discipline.

DEBATE **Grades 11, 12**
Course No. 179, 1/2 Year **1.00 Cr**

Want to improve your confidence, assertiveness, public speaking, persuasive ability, and listening skills? Learn to be a confident and effective debater. This course will teach the various facets of competitive debating including the modes of persuasion, research, reasoning, and the art of the cross examination. Students will participate in formal debates concerning a new category of controversial topics each debate. Debates will be conducted between individuals as well as groups with critique and reflection to follow. Students will also serve as a lawyer in a mock trial. Juniors may take this course as an elective in addition to the required English 11 course. When taken by juniors, this course does not fulfill the senior English requirement.

RESEARCH SKILLS **Grades 10, 11, 12**
Course No. 184, 1/4 Year **.50 Cr**

Learn how to choose and narrow topics, prepare an outline, utilize research tips, take appropriate notes, and write organized drafts. Learn the relationship of grammar, style, and mechanics to effective papers. Use of the Internet with regard to research, documentation, and the ethics involved will be an integral part of the course. Students in grades 10 and 11 may select this course in addition to the required English 10 or English 11 course. Students will write a ten to fifteen page research paper and give an extensive oral presentation. When taken by sophomores or juniors, this course does not fulfill the Senior English requirement.

CAPSTONE PROJECT **Grade 12**
Course No. 1855, 1/4 Year **.50 Cr**

Senior Capstone is an individualized learning experience in which students demonstrate proficiency in the Portsmouth High School graduation requirements. Students select a topic of personal and academic interest and create an essential question that focuses the project. Students will read published works on their subject, write a research

paper, create a product, and present their project. Much of the work is done independently.

Literature Electives

BRITISH LITERATURE **Grades 11, 12**
Course No. 174, 1/4 Year **.50 Cr**

This course explores the unique literary world of the British Isles. The focus ranges from earliest times to the 20th century and includes major works as well as short stories and poetry. Authors to be studied may include John Donne, William Blake, William Shakespeare, Charlotte Bronte, Jane Austen and Charles Dickens. Weekly response papers, nightly reading assignments, an independent research paper, visual project and class presentation will be required. When taken by a junior, this course does not fulfill the senior English requirement.

FILM STUDIES II **Grade 12**
Course No. 154, 1/4 Year **.50 Cr**

Prerequisite: Grade of B or higher in Film Studies I

This course delves into the concepts introduced in Film Studies through in-depth study of national cinemas, directors, and genres. Students will screen films, discuss film topics, produce student films, and research an individual director.

THE LITERARY WEST: MYTH AND REALITY **Grades 11, 12**
Course No. 186, 1/4 Year **.50 Cr**

This course will explore the unfolding identity of the West in 19th and 20th Century America, with a particular emphasis on Native American Literature and Poetry. Writings and films to be studied and analyzed include works by Larry McMurtry, Louise Erdrich, Mark Twain, James Fennimore Cooper, Elaine Goodale Eastman (*Sister to the Sioux*), Ian Frazier, Kent Nerburn (*Neither Wolf nor Dog: On Forgotten Roads with an Indian Elder*), excerpts from Dee Brown's *Bury My Heart at Wounded Knee*, as well as historic primary documents by Sitting Bull, Geronimo, Crazy Horse, and Chief Joseph. Weekly response papers, nightly reading assignments, an independent research paper, visual project and class presentation will be required. When taken by juniors, this course does not fulfill the senior English requirement.

English

**MYTHOLOGICAL AND
BIBLICAL ALLUSIONS**
Course No. 164, 1/4 Year

Grades 11, 12
.50 Cr

This course will offer the opportunity to study those figures and stories from the Bible and Greek and Roman mythology commonly referred to in modern Western literature. The objective is to increase cultural literacy in college-bound students. Readings will include mythological and Biblical stories, as well as modern poetry, short stories, and novel excerpts. An independent research and visual project will be required. When taken by juniors, this course does not fulfill the Senior English requirement.

SHAKESPEARE
Course No. 194, 1/4 Year

Grades 11, 12
.50 Cr

In this course students will examine Shakespeare's cultural impact and the ongoing importance of his literature in our lives. We will look at his work from a contemporary perspective by studying modern renditions of his work. The course will also touch upon what it was like to live in the Elizabethan world and the societal conditions that helped to form Shakespeare's work. The main focus of this class is to gain an appreciation of his use of language and to better understand his work as performance art. When taken by juniors, this does not fulfill the senior English requirement.

SHORT STORY AND POETRY
Course No. 148, 1/4 Year

Grades 11, 12
.50 Cr

This course will present a variety of short stories, both contemporary and classic, for analysis and appreciation of styles and themes. Poetry for analysis offers students an opportunity to study the significance, techniques, and the beauty of poetry, both ancient and modern. Emphasis will be placed on reading poetry for enjoyment through understanding. Students will write both poetry and a short story. With emphasis on self-directed work through Google Portfolio Classroom, a variety of projects will be assigned throughout the term. Students will be expected to publish a short story and poetry portfolio. When taken by juniors, this course does not fulfill the Senior English requirement.

LEVEL V ADVANCED PLACEMENT COURSE

Candidates for AP English and Expository Writing must submit an application form which includes a recommendation from the student's current English

teacher, samples of the student's writing, and a photocopy of the student's most recent report card. Each student's completed application package will be reviewed by a panel of Portsmouth High School English Department faculty.

**ADVANCED PLACEMENT
ENGLISH**
Course No. 195, 3/4 Year

Grade 12
1.5 Cr

Advanced Placement English is a literature-intensive course which emphasizes the development of skills in close reading, literary analysis, critical thought, and in writing the analytical essay. Course content will focus on major literary works as well as short stories and poetry from the classical to the modern period including multi-cultural works. Representative selections include: Shakespeare's King Lear, Irving's A Prayer for Owen Meany, O'Brien's The Things They Carried, and Ellison's Invisible Man.

COLLEGE CREDIT COURSE

**EXPOSITORY WRITING
(PROJECT RUNNING START)**
Course No. 197, 1/2 Year

Grade 12
1.00 Cr

This is a college-level course offered in conjunction with Great Bay Community College. Students earn both high school and college credit for this Expository Writing course. Students should be prepared for extensive reading and writing. The course focuses on rhetorical principles and their impact on effective writing. Emphasis will be placed on concepts such as topic selection, audience, purpose, and style. In addition, students will write a comprehensive term paper. Readings in support of these concepts will be an integral part of the course. The ACT/Asset assessment test is given at the high school. This is required of any student enrolled in this course. The cost to enroll in a Running Start course is \$150, plus books. This represents a substantial savings in college tuition costs.

E.S.O.L.

Family and Consumer Science

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES *Grades 9, 10, 11, 12*
Course No. Assigned by Counselor .50 Cr./Qtr

English for Speakers of Other Languages (E.S.O.L.) is offered to students whose primary language is not English. Generally these students have recently come to the United States. The course content develops English language skills in the following domains: reading, writing, listening, and speaking. It also provides students with important cultural information about the United States. The objective of the course is to facilitate growth of students' English language skills in order for them to fully access and excel in their general education courses.

See Page 15 for complete descriptions:

CAREERS IN BUSINESS *Grades 9, 10*
Course No. 817, 1/4 Year .50 Cr

See Page 19 for complete descriptions:

CULINARY 101 *Grades 9, 10, 11, 12*
Course No. 837A, 1/4 Year .50 Cr
(preference given to grades 9, 10)

See Page 20 for complete descriptions:

EARLY CHILDHOOD DEVELOPMENT *Grades 9, 10, 11, 12*
Course No. 845, 1/4 Year-1st or 3rd Qtr. .50 Cr

PARENTING AND FAMILIES TODAY *Grades 10, 11, 12*
Course No. 846, 1/4 Year-2nd or 4th Qtr. .50 Cr

See Page 28 for complete description:

RELATIONSHIPS *Grades 10, 11, 12*
Course No. 804, 1/4 Year .50 Cr.

Health

Interdisciplinary Studies

HEALTH STUDIES I
Course No. 802, 1/4 Year

Grades 10, 11, 12
.50 Cr.

One-half credit of health studies is a requirement for graduation set forth by the NH Board of Education (Ed.306.40). Health is a nine week course offered primarily to tenth grade students and those students transferring into the district that have not yet met the health course requirement. The course is intended to help students obtain information, acquire skills, and examine attitudes conducive to the formation of positive health behaviors throughout their lives. The course design is aligned with the district health curriculum's tenth grade benchmarks.

SERVICE LEARNING
Course No. 961B, 1/4 or 1/2 Year
(recommended 1/2 Year)

Grades 11, 12
.50 or 1.00 Cr

Learn to serve and serve to learn. Offer your time and talents to make a difference in your community, gain a deeper appreciation of your surroundings, and a learn more about yourself. This semester-long course involves weekly hands-on volunteering at a community site, as well as classroom reflection on project work, the concept of service learning and its impact on society. The choice of a service learning site reflects your own personal goals and interests.

Course requirements include: final presentation and reflection essay, weekly journals, site attendance and evaluation, class assignments and participation.

Sites chosen in the past include: Teaching Spanish or French at Portsmouth pre-schools or elementary schools, assisting a classroom teacher, or volunteering at local non-profits such as Discover Portsmouth Center, PM<AC, Operation Blessing or Edgewood Centre.

YEARBOOK
Course No. 192, 1/4 Year

Grades 9, 10, 11, 12
.50 Cr

NOTE: This course will satisfy the computer requirement.

The yearbook course will provide students with an interdisciplinary experience designed to incorporate many useful skills and the ability to apply those skills to the actual production of the yearbook. Skills and units of study include teamwork, responsibility, brainstorming, content, coverage, concept, reporting, writing, headlines, captions, editing, photography, typography, design, graphics, finances, yearbook campaigns, advertising, and distribution.

Actual work results in the current volume of the school's yearbook. The publication strives to maintain a tradition of excellence in which the school and the community can take pride.

Mastery of the goals and objectives fully verse class members in all areas of publication production. Titles available for students who desire to take a leadership role in the class are as follows: Editor, Assistant Editor, Designer/Layout Editor, Advertiser, Marketing Assistant, Photographer/Journalist, Business Manager, Copy Editor, Web Tech. **Student may contract for Level IV by committing to a leadership role.**

International Languages

Our International Languages Department provides basic through advanced instruction in French, Latin and Spanish. We offer three levels of Chinese through the Confucius Institute. We use a proficiency model in teaching modern languages. Students concentrate on communication in speaking and writing in levels I and II, and reading and writing skills are developed and expanded in the upper levels. Through the contrast and comparison of language, students develop critical thinking skills. The ability to communicate with people of other cultures is important as our society becomes multi-lingual and multi-cultural. Global economies are now inter-dependent. The study of language offers the opportunity to profit in the increasing number of careers available in the international arena. We also augment our learning by offering trips every year.

Advancement to the next level will be based on teacher recommendation.

In order to insure a smooth transition and to provide support for those students seeking a solid base before continuing, the department offers a student-to-student tutoring program which meets when appropriate for the student and tutor, and usually in the presence of the student's teacher. **Tutoring is STRONGLY recommended for students who have received a C- and wish to continue.**

SPANISH I *Grades 9, 10, 11, 12*
Course No. 505, 1/2 Year *1.00 Cr*

Spanish I helps students to develop basic communication skills in reading, listening, speaking and writing. Active participation is necessary for development of oral skills. Quizzes, tests, orals and other assessments are given regularly. Continuous review is encouraged. Unit tests check cumulative knowledge. Compositions and orals as well as a written assessment comprise the midterm and final exams.

SPANISH II *Grades 9, 10, 11, 12*
Course No. 512, 1/2 Year *1.00 Cr*

Prerequisite: Recommended grade of C+ or better in Spanish I and/or teacher recommendation.

Spanish II focuses on continued development of oral and written skills. In pairs, groups or individually students participate by describing events asking and answering questions or preparing presentations. Students are responsible for writing more detailed compositions. Tapes, pod casts or presentations by native speakers develop further comprehension. Student participation is a priority. Success in the course is in direct proportion to participation and preparation.

SPANISH III *Grades 9, 10, 11, 12*
Course No. 515, 1/2 Year *1.00 Cr*

Prerequisite: Recommend grade of B or better in Spanish II and/or teacher recommendation.

With continued emphasis on personal expression, both oral and written, this course will review previously taught grammar and introduce new concepts. The student's knowledge of present and past tenses will be expanded. Classes are conducted in Spanish. Tapes and pod casts of native speakers will be used to reinforce comprehension and students continue to improve their writing skills as they peer edit, use draft writing and complete individual writing compositions. Participation, homework and written work are integral roles in student assessment.

SPANISH IV *Grades 10, 11, 12*
Course No. 518, 1/2 Year *.1.00 Cr*

Prerequisite: Recommend grade of B or better in Spanish III

In Spanish IV a balanced sequence of speaking, listening, reading and writing continues. The curriculum is designed to expand knowledge of Spanish grammar and to explore culture more deeply. Readings will include excerpts from literature, authentic newspaper sources and cultural readings designed to emphasize the different aspects of a variety of Spanish-speaking countries. Classes are conducted in Spanish with a continued stress on oral participation. Student participation is mandatory as students' grades are based on class participation, written work, and projects.

SPANISH V *Grades 10, 11, 12*
Course No. 521, 1/2 Year *1.00 Cr*

Prerequisite: Recommend grade of B or better in Spanish IV

This course is designed to meet the needs of the more serious Spanish student and develops the student's ability to read with comprehension and develop a personal style in writing. This class serves as a preparation for Spanish AP and therefore is grammatically intense. Writing assignments vary from reflective essays to essays that synthesize information from various sources. Students are assessed on their oral performances, written work, projects and reading comprehension.

ADVANCED PLACEMENT
SPANISH LANGUAGE *Grades 11, 12*
Course No. 525, 3/4 Year *1.50 Cr*

Prerequisite: Spanish V

A teacher recommendation and student self-evaluation must be completed prior to entrance in AP

Advanced Placement Spanish Language is a course that focuses on reading, speaking, and grammatical

International Languages

structures that enhance understanding the language. The reading selections are from current material provided by AP Placement sources, and authentic selections from periodicals and newspapers published in Spanish-speaking countries. Every lesson has a cultural component, taking the students deeply into the language-culture connection. The book, *Triangulo*, is used as well as *Abriendo Paso*, *Una vez mas*, *Lecturas Avanzadas* (Aamsco) as well as current grammatical practice texts published by Baron's. Students will constantly practice and review, delving into the details of the language. Students will prepare speaking tapes, and practice reading and writing responses to tapes.

TOPICS IN SPANISH-SPEAKING

CULTURES

Course No. 5255, 1/4 Year

**Grades 9, 10, 11, 12
.50 Cr**

This 1/2 credit class will focus on the various cultures in the Spanish-speaking world, and in the U.S. The food, the lifestyles and cultural habits and customs will be addressed through readings, podcasts, videos, films and invited speakers.

SPAIN: Then and Now

Course No. 579, 1/4 Year

**Grades 10, 11, 12
.50 Cr**

Prerequisite: Grade of B or better in Spanish III recommended and/or teacher approval

This course is offered to committed Spanish students who wish to explore the country of Spain, the language and the culture. The class is entirely in Spanish, with glimpses of history, cultural connections and explorations to the "New World", and nuances of the language. We will explore the culture of Spain today as well, drawing comparisons from the past and from other nations. A project takes the place of a final exam.

FRENCH I

Course No. 532, 1/2 Year

**Grades 9, 10, 11, 12
1.00 Cr**

This course presents the basic principles of listening, speaking, reading and writing. The teacher speaks French as often as possible to initiate student participation. CD's and videos are used to further listening and speaking development. Written homework is assigned daily. Quizzes and tests on grammar structures and vocabulary are given regularly. Oral participation in class is necessary to further one's speaking skills. All four components are part of the final exam.

FRENCH II

Course No. 538, 1/2 Year

**Grades 9, 10, 11, 12
1.00 Cr**

Prerequisite: Grade of C+ or better in French I recommended

Advanced French II strengthens the skills acquired in French I with more advanced principles of grammar and increased vocabulary development. French is used almost exclusively in class. Students use present, past and future time in their oral activities and written work. Besides being required to participate in class, students present skits and short oral presentations before the class in French. CD's and videos develop further comprehension. Students at this level begin writing short, controlled compositions. Quizzes and tests are given regularly. Written homework is assigned daily.

FRENCH III

Course No. 541, 1/2 Year

**Grades 9, 10, 11, 12
1.00 Cr**

Prerequisite: Grade of B or better in French II recommended

In French III, the student's listening, speaking and writing skills are strengthened by varied types of oral and written work. The class is taught in French. To reinforce comprehension, CD's and videos are used with comprehension activities. Student participation in class is necessary for development of oral skills. Three new tenses will be learned.

FRENCH IV

Course No. 544, 1/2 Year

**Grades 10, 11, 12
1.00 Cr**

Prerequisite: Grade of B or better in French III recommended

In French IV, a balanced sequence of oral comprehension, speaking, writing and reading is stressed. There will be a revision of all tenses. The subjunctive tense will also be introduced. CD's are used to further listening and speaking development. Classes are conducted in French with continued stress on oral participation. Student participation is mandatory and students' grades are based on written work and class participation.

FRENCH V

Course No. 547, 1/2 Year

**Grades 10, 11, 12
1.00 Cr**

Prerequisite: Grade of B or better in French IV recommended. This is a fast-paced class that will review grammar adding a few additional points.

In this course, listening and speaking skills are strongly developed. Continued use of CD's is necessary to reinforce comprehension. The student's ability to read easily with direct comprehension is also emphasized. French history and culture are also studied. Class participation is of the utmost importance and a significant percentage of the student's grade is based on this.

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ADVANCED PLACEMENT

FRENCH LANGUAGE

Course No. 546, 3/4 Year

Grades 11, 12
1.50 Cr

Prerequisite: French V

A teacher recommendation and student self-evaluation must be completed prior to entrance in AP

Advanced Placement French Language is a course that focuses on reading, speaking, and grammatical structures that enhance a cultural understanding of the language. The reading selections are from current material provided by AP Placement sources, and authentic selections from periodicals and newspapers published in Francophone countries. Every lesson has a cultural component, taking the students deeply into the language-culture connection.

The book, *Themes*, is used as well as current grammatical practice texts published by Baron's. We use selected readings from the AP Literature texts. Students will constantly practice and review, delving into the details of the language. Students will prepare speaking tapes and practice readings and writing responses to tapes.

TOPICS IN

FRANCOPHONE CULTURE

Course No. 589, 1/4 Year

Grades 9, 10, 11, 12
.50 Cr

This 1/2 credit class will focus on the various cultures in French-speaking areas: in Africa, in the Caribbean and in Europe, and in the U.S. The cuisine, the lifestyles and cultural habits and customs will be addressed through readings, podcasts, videos, films and invited speakers.

IMMERSION GERMAN-ITALIAN

Course No. 565, 1/2 Year

Grades 10, 11, 12
1.00 Cr

German and Italian will be taught in alternate years with German offered in 2017-18.

The Immersion language course provides students with an opportunity to experience a language in complete immersion. All instruction and activities related to language acquisition will take place in and through the target language. In addition, students will study about the history and culture of that country in English. The classes will be almost entirely in the target language with strict adherence to its usage. Students must be willing to immerse themselves in the targeted language.

LATIN

Culture informs language, and language informs culture. Latin has been at the heart of western world since the rise of classical civilization in the ancient Mediterranean. The foundations of Greco-Roman culture, the soul of the Middle Ages, the spirit of the Renaissance, and the tick-tock of the Modern period are all held within the rhythm of Latin. Latin brings us to the threshold of western the mythology, philosophy, theology, etymology, history and literature. It is a key to our own experience as reflected in our language, our laws, our governance, and our creative expression. Latin and classical education walk hand in hand. **Latin students are encouraged to join and participate actively in the PHS chapter of the National Junior Classical League.**

LATIN I

Course No. 550, 1/2 Year

Grades 9, 10, 11, 12
1.00 Cr

An introduction to the Latin language through basic grammar and vocabulary as well, using the text *Lingua Latina per se Illustrata: Familia Romana*, complemented by readings about classical, medieval, and Neo-Latin culture. Homework will not ordinarily exceed 30 minutes a night. Recommended for college bound students who seek the traditional foundation of a classical education.

LATIN II

Course No. 553, 1/2 Year

Grades 10, 11, 12
1.00 Cr

A continuation of Latin grammar and the acquisition of more advanced vocabulary as well, using the text *Lingua Latina per se Illustrata: Familia Romana*, complemented by readings about classical, medieval, and Neo-Latin culture. Homework will not ordinarily exceed 30 minutes a night. Recommended for college bound students who seek the traditional foundation of a classical education.

LATIN III

Course No. 557, 1/2 Yr

Grades 10, 11, 12
1.00 Cr

The completion of Latin grammar and the acquisition of more advanced vocabulary, using the text *Lingua Latina per se Illustrata: Familia Romana*. Extensive readings in classical mythology based on Ovid's *Metamorphoses*, using *Fabulae Syrae*. Students will explore the principle themes and characters of classical mythology: heroes, gods, and monsters.

LATIN IV

Course No. 560, 1/2 Year

Grades 10, 11, 12
1.00 Cr

**Introduction to Latin literature and culture with a survey of the heroes and history of the classical world. Possible topics include the Old Testament, Greek and Roman History, Julius Caesar and the New Testament. Intensive review of Latin vocabulary, grammar, and syntax. Students will begin

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studies in Latin composition. Recommended for college bound students who seek the traditional foundation of a classical education.

LATIN V **Grades 11, 12**
Course No. 5633, 1/2 Year **1.00 Cr**

**The Late Latin period, flowing into the Middle Ages, witnesses Western Europe transition from classical paganism to Christianity as the theological center of European civilization. This course will focus on ancient best-sellers with such authors as Augustine, Einhard, Bede, Monmouth, Bonaventure, Piccolomini, et al. Students will begin studies in Latin composition. Recommended for college bound students who seek the traditional foundation of a classical education

****University Credit--University of Massachusetts Boston: Latin IV and Latin V students will have the opportunity to participate in the dual-enrollment program between PHS and UMass Boston, earning three credits per course. Tuition, offered at a significant discount, is paid to the university for these credits.**

CHINESE

CHINESE I **Grades 9, 10, 11, 12**
Course No. 580, 1/2 Year **1.00 Cr**

This course introduces students to Chinese language and culture through speaking, listening, reading, writing, hands-on activities and films. Designed for students without previous training in Chinese, this course is conducted through aural-oral practice in meaningful contexts of the fundamental vocabulary and grammar of Mandarin Chinese. Reading and writing expressed in Romanization (pinyin) and in Chinese characters. More characters and grammar will be introduced in Chinese II and III.

CHINESE II **Grades 9, 10, 11, 12**
Course No. 581, 1/2 Year **1.00 Cr**

Prerequisite: Recommend grade of C+ or better in Chinese I and/or teacher recommendation.

This is a continuation of Chinese I or for students who have achieved the equivalent from elsewhere. With 400-600 characters learned in Chinese I, this course will be conducted entirely in Chinese, with work on listening comprehension, speech, reading, and writing of Chinese characters, with increasing attention to reading contemporary Chinese texts.

CHINESE III **Grades 10, 11, 12**
Course No. 582, 1/2 Year **1.00 Cr**

Prerequisite: Recommend grade of B or better in Chinese II and/or teacher recommendation.

This class is a continuation of Chinese II or for students who have achieved the equivalent from elsewhere. With over 800 characters learned in Chinese I and II, this course will be conducted entirely in Chinese, with work on listening comprehension, speech, reading, and writing of Chinese characters, with daily attention to reading contemporary Chinese texts such as newspapers and television news.

Mathematics

The goal of teaching mathematics in the Portsmouth School District is to develop in students the value and enjoyment of mathematics. Students must be able to reason and communicate mathematically, have confidence in their mathematical skills, use math to make informed decisions in their daily life, and see themselves as mathematical problem solvers. In solving problems, students must be able to question the reasonableness of a solution, be flexible, persevere, and take risks. Students must have these skills to adapt to the changing needs of the 21st Century.

Guidelines:

- A minimum of three credits of math is required for graduation. Students must complete the requirements in each of the following areas:
 - ♦ Algebra I
 - ♦ Geometry
 - ♦ Algebra II
- A grade of "C" or better is strongly recommended before taking the next level course.
- All students should consult with teachers and counselors concerning course selection.
- Honors sections are offered in Algebra II, Algebra III, Precalculus. Also offered are AP Calculus and AP Statistics.

EXPLORING MATH **Grades 9, 10**
Course No. 302, All Year **1.00 Cr Math**

Exploring Math is a full-year program designed for the student who could benefit from a course that explores an overview of the mathematics classes available at PHS. The course is designed to review the foundations of fractions, decimals, and percents as the students are given an introduction to other mathematical topics. The ideas of geometry, algebra, probability and statistics will be taught while basic skills are reviewed.

ALGEBRA I **Grade 9**

An understanding and application of the structure and principles of algebra, designed for the student who has mastered the operations and properties of rational numbers. Algebra I is structured to cover the following topics: algebraic expressions, formulas, equations, inequalities, exponents, rational expressions, quadratics, polynomials, and factoring. The student will develop a solid basis in algebra and gain confidence in his/her ability to use mathematics in a variety of real world problems.

Students will be recommended for Algebra I course levels as follows:

ALGEBRA I (College Prep)
Course No. 332, 81 Minutes, Full Year **2.00 Cr**

This course is designed for students who would benefit from additional practice time built into the structure of the class.

ALGEBRA I (Advanced College Prep)
Course No. 332S, Full Year **1.00 Cr**

This course is designed for students who would benefit from taking algebra all year in a modified block needing less classroom practice.

ALGEBRA I - ACCELERATED PACE (Advanced College Prep)
Course No. 3361, 1/2 Year **1.00 Cr**

Prerequisite: B+ or higher in Algebra I in the 8th grade and teacher recommendation

This course is designed for students who excelled in Algebra I in the eighth grade and can transfer mathematical concepts quickly and with precision. Students should enter Freshmen Formal Geometry following successful completion of this course level. This course is taught at an accelerated pace.

PERSONALIZED MATH **Grades 10, 11, 12**
Course No. 337, 1/4 Year **.50 Cr**

The curriculum for this course is designed to strengthen math skills needed for future mathematics courses.

INFORMAL GEOMETRY **Grades 10, 11, 12**
Course No. 341, 1/2 Year **1.00 Cr**

Prerequisite: Algebra I

Informal Geometry is a course for the student who has successfully completed Algebra I. It is designed to be an intuitive course in which the concepts of symmetry, congruence and similarity are developed with emphasis throughout on metric relationships of geometry and reinforcement of algebraic techniques. The approach to teaching the nature of proof and geometric reasoning is realistic and practical. Informal Geometry or Formal Geometry will satisfy the requirement for admission to many post-secondary schools as an academic math course.

FORMAL GEOMETRY **Grades 10, 11, 12**
Course No. 344, 1/2 Year **1.00 Cr**

Prerequisite: Algebra I

Formal Geometry is offered as a preparation for Algebra II. A solid foundation in algebra is recommended as a prerequisite for this course. Reasoning is stressed and logical conclusions are arrived at through the deductive process. The writing of proofs is stressed to enable the student to see and appreciate the structure, and orderly arrangement of mathematics. A student can not receive credit for both Informal and Formal Geometry.

Mathematics

**FRESHMAN FORMAL
GEOMETRY**
No. 353, 1/2 Year

Grade 9 Course
1.00 Cr

Prerequisite: Algebra I Accelerated Pace

Freshmen Formal Geometry is offered as a preparation for Honors Algebra II. A solid foundation in Algebra is recommended as a prerequisite for this course. Reasoning is stressed and logical conclusions are arrived at through the deductive process. The writing of proofs is stressed to enable the student to see and appreciate the structure, and orderly arrangement of mathematics. Freshmen Formal Geometry is a rigorous, fast-paced geometry meant for the student thinking of applying to the honors mathematics program. A student can not receive credit for both Informal and Formal Geometry.

APPLIED ALGEBRA II
Course No. 362, 1/2 Year

Grades 10, 11, 12
1.00 Cr

This is a half year course for the student who has passed an Algebra I and a Geometry course with average success and may require review and/or additional development in these areas. Basic algebra skills will be reinforced while being introduced to quadratic equations. These skills will be in conjunction with the further development of geometry and algebra concepts while emphasizing connections between these courses. Upon completion of the course, students will take the Accuplacer exam to assist with future planning.

ALGEBRA II
Course No. 367, 1/2 Year

Grade 12
1.00 Cr

Prerequisite: Algebra I and Geometry

In this course, the basics of algebra are reinforced and new concepts are introduced. Linear, quadratic, exponential, and logarithmic equations will be studied. The student will apply these concepts and solve a variety of problems. A grade of "C" or better in previous math courses is recommended before electing to take Algebra II. Upon completion of the course, students will take the Accuplacer exam to assist with future planning.

SOPHOMORE ALGEBRA II
Course No. 370, 1/2 Year

Grades 10, 11
1.00 Cr

In this course, the basics of algebra are reinforced and new concepts are introduced. Linear, quadratic, exponential and logarithmic equations will be studied in more depth. The student will apply these concepts and solve a variety of real world problems. Upon completion of the course, students will take the Accuplacer exam to assist with future planning.

ALGEBRA III
Course No. 377, 1/2 Year

Grade 12
1.00 Cr

Prerequisite: Algebra II

Algebra III is the continuation of the study of mathematics with the focus on rational functions, conics, trigonometry, and sequences. This course follows the College and Career Ready Standards of the Algebra II curriculum and will provide the necessary foundation for further study in the area of mathematics.

**TRIGONOMETRY AND
ADVANCED TOPICS**
Course No. 373, 1/4 Year

Grades 10, 11, 12
.50 Cr

Prerequisites: Algebra II

Trigonometry and Advanced Topics is for the student looking to continue their study of mathematics after the completion of Algebra II. The course will focus on graphing and analyzing trigonometric functions and sequences. Students are strongly encouraged to take this course before taking Precalculus.

SENIOR MATH
Course No. 350, 1/2 Year

Grade 12
1.00 Cr

Prerequisites: Applied Algebra II or Algebra II, and a score of at least 50 on pre-acceptance test.

Topics in Applied College Math is a course for students that have completed an Algebra II course and are seeking a senior mathematics class. The class is geared to have students gain mastery in the areas of linear, polynomials, and quadratics within a real life setting. Students will be required to take a pre and post Accuplacer test.

PROBABILITY AND STATISTICS
Course No. 388, 1/2 Year

Grades 11*, 12
1.00 Cr

Prerequisite: Algebra II

Probability and Statistics is a course for any student who has successfully completed Algebra II. Any student interested in careers in business, social sciences, and math-science related fields would benefit from taking this course. In this course students will be introduced to the basics of statistical methods. Students will gain an understanding of how to collect data, interpret data, and develop an understanding of how statistical hypotheses are made and tested. Topics to be covered are organization of data, measures of central tendency, probability distributions, populations, hypothesis testing, sampling and experimental design. ***Open to juniors with permission of the teacher**

Mathematics

PRECALCULUS **Grades 11, 12**
Course No. 383, 1/2 Year **1.00 Cr**

Prerequisites: Algebra III with a "C" or better recommended. Trigonometry and Advanced Topics is also strongly recommended.

Precalculus is designed as a continuing course for the student who has demonstrated better than average success in Algebra III and Geometry and seeks to prepare for Calculus. Precalculus will cover topics including functions, graphing, exponents, logarithms, trigonometry, sequences and series, and limits. Applications and an introduction to calculus will be included as time allows.

CALCULUS **Grade 12**
Course No. 394, 1/2 Year **1.00 Cr**

Prerequisite: Precalculus with a "C" or better recommended

Topics included in this course are analytic geometry, limits, differentiation, integration, and applications using derivatives and definite integrals. The course is presented from a practical standpoint, without rigorous proof on the part of the student. Much of the theory is presented using graphing calculators or in geometric terms and is based on the material covered in Precalculus.

ADVANCED PLACEMENT CALCULUS **Grade 12**
Course No. 395, 3/4 Year **1.5 Cr**

Prerequisite: Precalculus

Advanced Placement Calculus (AP Calculus) is designed to cover the first and second semesters of college calculus. Topics include elementary functions, limits, differentiation, integration, polar coordinates and analytic geometry. Background requirements include a solid knowledge of mathematics through Precalculus with special emphasis on Algebra I, II, and III. The purpose of the course is to expose students to an intensive course in college calculus and to enable the students to take the national Advanced Placement Test offered in May. Successful completion of the required AP Test may allow for one semester of college credit in calculus. Students who enroll in this course are encouraged to take the advanced placement examination.

ADVANCED CALCULUS **Grade 12**
Course No. 3961, 1/4 Year (Quarter 4 only) **.50 Cr**

Prerequisite: Calculus or AP Calculus

Advanced Calculus is designed for students who desire to deepen and expand their knowledge of the topics covered in previous calculus courses. During the first half of the course, student work will be largely independent and the topics covered will be based on the interests of the students participating. In addition, those students taking an AP Calculus exam will hone their problem solving and math skills in preparation for the exam.

ADVANCED PLACEMENT STATISTICS **Grades 11, 12**
Course No. 397, 3/4 Year **1.5 Cr**

Prerequisite: Algebra II with a "B" or better recommended

The Advanced Placement Statistics course is about **variation**:

- how to quantify it
- how to control for it
- and how to make decisions based on the amount of it

AP Statistics is a wicked fun class that requires an uncommon commitment to thinking and learning. The teaching and learning method is activity-driven and based on inquiry, conjecture, discovery, and the justification of ideas. We tend to collect much of our own data and answer questions such as: "Is there really twice as much filling in Double Stuff Oreos compared to regular Oreos?" We analyze interesting historical data such as the 2000 and 2008 Presidential elections, the 1970 Vietnam Draft lottery, and the sinking of the Titanic. We also use American cultural icons such as the Harry Potter series for analysis. We rip stories from the headlines from sources such as The New York Times and fivethirtyeight.com to further our understanding of Statistics in our world.

There are three major curriculum topics:

- I. Exploratory Data Analysis: Observing patterns and departures from patterns.
- II. Planning a Study: Deciding what and how to measure.
- III. Anticipating Patterns: Producing models using probability theory.

Students who enroll in this course are encouraged to take the advanced placement examination.

Performing Arts - Drama

The Drama Department offers courses in play production. In addition to the various course offerings, an ambitious co-curricular program in play production is mounted each year. Plays ranging from the large-scale fall musical to full plays, to children's theater are produced annually. The Drama Department participates in the annual NH State Festival. All PHS students are eligible to participate in the drama program either onstage or backstage.

Introduction to Theatre should be taken as a prerequisite for all other drama courses. All courses in Drama may be taken to satisfy the Fine Arts education requirement.

INTRODUCTION TO THEATRE **Grades 9-12**
Course No. 750, 1/4 Year **.50 Cr**

This course will provide hands-on learning in many different areas of theatre. Students will work on writing and performing monologues, scene study, improv, movement for the actor, stage combat and text analysis. In addition, students will learn mask-making and character development, set construction and tech theatre, as well as audition preparation and industry standards. Students should leave this course with a broader knowledge of the world of theatre and a more in-depth understanding of acting technique.

MOVEMENT FOR THE ACTOR **Grades 9-12**
Course No. 751, 1/4 Year **.50 Cr**

Prerequisite: Introduction to Theatre

This course will explore the actor's body as a tool for storytelling. Each class will begin with a group warm-up followed by study in different areas of movement including Musical Theatre Dance, Laban Technique, Yoga, Prop Study, Lyrical Dance, Modern Dance, and Tumbling. Students will work on core strength and develop a more in-depth understanding of their bodies.

MUSICAL THEATRE PERFORMANCE **Grades 9-12**
Course No. 752, 1/4 Year **.50 Cr**

Prerequisite: Introduction to Theatre

Students will be immersed in musical theatre from the 1930's to current Broadway hits. Each week will be a study in a different period of Musical Theatre History. Students will research, stage/choreograph, and perform scenes and songs from each era with partners and small groups. Selections from each era will be performed in a final showcase.

Performing Arts - Music

MUSIC

The Music Department offers a wide selection of courses in both performance and classroom areas of instruction. Music studied ranges from the classical tradition to popular to contemporary. Traditional instruments as well as music technology equipment such as keyboards, computers, synthesizers and sequencers are available in the Music Department. Members of the music performance groups also have the opportunity to audition for placements in All-State Music Festival, All-New England Music Festival, and New Hampshire Jazz All-State.

In addition to the large ensembles, Band and Choir, which meet during the school day, the Music Department has several musical groups which meet outside the regular school day. These include Big Band, Jazz Combo, Mixed Instrumental Ensembles, Percussion Ensemble, Color Guard, Treble Choir, Madrigal Singers, and Men's Ensemble. No additional credits are given for participation in these performing groups.

All courses in the Music Department may be taken to satisfy the Fine Arts requirement.

PERFORMANCE COURSES

CLIPPER BAND **Grades 9, 10, 11, 12**
Course No. 773, All Year **1.00 Cr**

The Clipper Band is open to all students (previous band experience is strongly recommended). As musical ambassadors for the City of Portsmouth, the Clipper Band will be expected to perform at various community functions during the school year. These performances include home football games in the fall, Portsmouth Holiday Parade in December, and the Memorial Day Parade in late May. The Band performs a variety of music ranging from traditional literature to contemporary and Broadway show medleys. In order to prepare for these events, there will be a week long Band Camp before school begins. Some fund raising activities may be scheduled throughout the year to help support the band activities.

CONCERT CHOIR **Grades 9, 10, 11, 12**
Course No. 775, All Year **1.00 Cr**

This large choral ensemble is open to all students regardless of previous vocal experience. Music performed is both sacred and secular in nature and ranges from classics to

the Broadway stage and arrangements of popular music—all with an emphasis on choral and vocal tone quality development, diction, and balance and blend of voices. It is mandatory that students participate in concerts which occur in after-school or evening times. Some fundraising activities may be scheduled throughout the year.

BAND/CHOIR **Grades 9, 10, 11, 12**
Course No. 777, All Year **1.00 Cr**

Prerequisite: Permission of Instructors

This course is designed for students who would like to participate in both band and choir (see course descriptions 773 and 775).

CLASSROOM COURSES

FUNDAMENTALS OF MUSIC THEORY **Grades 9, 10, 11, 12**
Course No. 771, 1/4 Year **.50 Cr**

Open to all students regardless of musical background. Basic musical concepts such as rhythms, scales, key signatures, intervals and chords will be covered. The music technology assisted classroom is used for music history research, and provides an introduction to technology-based learning. If you want to learn how to read and write music, this is the class for you.

ADVANCED MUSIC THEORY **Grades 10, 11, 12**
Course No. 777, 1/4 Year **.50 Cr**

Prerequisite: Fundamentals of Music Theory or permission of instructor

Students interested in this course must have a background in basic musical concepts (*Band, Choir or Fundamentals class*). Advanced musical concepts such as harmonic analysis, voicing, arranging and composition skills will be covered. The music technology assisted classroom is used extensively for creating and performing instrumental and vocal pieces. If you want to learn how to create music, this is the class for you.

JAZZ IMPROVISATIONAL STUDIES **Grades 10, 11, 12**
Course No. 778, 1/4 Year **.50 Cr**

Prerequisite: Fundamentals of Music Theory or permission of instructor.

Students interested in this course must play an instrument to participate. The history of Jazz and the variety of styles will

Performing Arts - Music

be explored through research and performance. Students will learn how to improvise using the "Jamey Aebersold" method. Students will learn about blues and jazz scales, solo construction, and performance techniques. Students will also perform in small group combos.

INTRODUCTION TO MUSIC TECHNOLOGY

USING APPLE'S "GARAGEBAND" *Grades 11, 12*
Course No. 679, 1/4 Year *.50 Cr*

NOTE: This course will satisfy the computer requirement.

Students are introduced to the various hardware and software components located in the music technology lab. Using Apple's "Garageband" combined with midi-controllers from "M-Audio" and a fully networked keyboard lab, students will learn how to electronically compose, edit, record and mix their own musical creations. While a musical background is not a prerequisite, it is certainly beneficial. Students who successfully complete this course would be eligible for independent study consideration in advanced recording utilizing the various school concerts as source material. Space permitting, grades 9 and 10 may be considered per permission of instructor. Course may be taken to satisfy computer or fine arts requirement. Course also listed in Computer Section.

Physical Education

Physical Education is an integral part of the total education which contributes to the development of the individual through the natural medium of physical activity-human movement. As one of the health sciences, it is a broad learning area which promotes healthful living and positive health attitudes.

Physical Education will provide students with a basic workable knowledge and understanding of the various activities, and create a level of skill that will enable the students to effectively participate in lifetime sports and fitness pursuits. Our basic objective is to see that our students become active participants and knowledgeable spectators.

All classes are coeducational, and offer an opportunity to work cooperatively, develop leadership and sportsmanship while releasing tension in a constructive manner. Up to 4 credits in physical education may be applied toward graduation.

PHYSICAL EDUCATION I **Grade 9**
Course Nos. 781, 1/4 Year **.50 Cr**
782, 1/4 Year **.50 Cr**

Required

Freshmen must sign up for both course #781 (inside activities) and #782 (outside activities). The Freshman seasonal course offerings are team and dual sports and an introduction to ProjectAdventure utilizing the ropes course.

Students must pass the required grade 9 Physical Education I course before selecting any of the following Physical Education electives.

PHYSICAL EDUCATION II **Grades 10, 11, 12**
Course No. 786, 1/4 Year **.50 Cr**

Prerequisite: C+ or better in Physical Education I

This advanced physical education course is more intensive, with greater skill expectations than physical education I. Students will also explore a variety of ways to improve their fitness through a variety of non-traditional outdoor and indoor games, lifetime and recreational sports, and an advanced level of team and individual sports. This course will start with recreational and competitive game play, and end with a multi-week team tournament. Activities will be geared towards all ability levels so that everyone can participate.

STRENGTH TRAINING **Grades 10, 11, 12**
Course No. 787, 1/4 Year **.50 Cr**

Prerequisite: One Credit in Physical Education I.

This is a coeducational course focusing on the methods of developing size, maximal strength, power and/or endurance, through various weight-training procedures. The course has some short lecture sessions discussing weight lifting etiquette, myths, basic kinesiology, nutrition and hydration. Additional instruction and information will be given on various pieces of weight lifting equipment and highlighting all their features and uses. Attention will also be given to cardiovascular fitness and muscular strength and endurance, through circuit training and agility work, as well as fitness games and activities. Students will set goals, develop and implement their own weight-training/ cardiovascular program with the knowledge they have acquired. No matter what your comfort level or experience in a weight room, you can benefit from taking this class.

STRENGTH TRAINING II **Grades 10, 11, 12**
Course No. 787B, 1/4 Year **.50 Cr**

Prerequisite: Successful Completion of Strength Training (#787) with a "B" or better.

This course will cover more aspects of strength training than strength training I. Training methods, and principals and philosophies will be discussed, as well as developing your own program from the start of the course using the 1 Rep Max philosophy. Benefits of circuit training will be discussed, as well as benefits of weight lifting on your own during the week. It will stress the proper use of equipment and training methods, as well as proper form when lifting. More extensive anatomy of the body's musculature and nutrition will also be covered in which students will have the opportunity to track their nutrition using a nutrition journal.

Developing goals and recording progress, successfully executing the mechanics of specific weight lifting exercises, demonstrating the ability to assess your strength level for specific exercises (1 rep max), being able to identify muscle structure and function, demonstrating knowledge and development of Health Related Fitness and Skill Related Fitness, demonstrating proper spotting techniques and other safety considerations, and effectively assessing yourself throughout the term based on expectations and goals you have set for yourself during the class. Lecture sessions are short and because of previous experience in Strength Training I, exercise time will be increased.

Physical Education

PROJECT ADVENTURE
Course No. 795, 1/4 Year

Grades 11, 12
.50 Cr

Prerequisite: One Credit in Physical Education I.

Project Adventure helps to build relationships both old and new, and allows students to interact with individuals outside of their social circles. Students will have the opportunity to improve their leadership, communication and problem solving skills, while recognizing and working on their weaknesses and also relying on their strengths. The class follows the sequential process of icebreakers, team building and problem solving, trust activities, and 6 low and 17 high rope climbing elements including our 450 foot zip line! Project Adventure's philosophies and cornerstones such as "Full Value Commitment", "Challenge by Choice", and "Experiential Learning" are all key concepts of this class. Students will be taught how to belay each other, learn climbing and safety protocols, and will journal and set goals daily. This is a great way to start or end your school year.

PROJECT ADVENTURE II
Course No. 796, 1/4 Year

Grades 11, 12
.50 Cr

Prerequisite: "B" or better in Project Adventure (#795)

Project Adventure II picks up where Project Adventure left off, and is designed for the student who wants to learn more about running a high ropes climbing course. This indoor class also follows the sequential process of icebreakers, team building and problem solving, trust activities, and high rope climbing elements including our most exciting element - the "Swing Shot!" Students will learn how to set up and take down all climbing elements, tie advanced climbing knots and a rope seat harness, learn various belaying techniques, and improve their upper body strength through challenging climbing elements. The class will also facilitate a visiting elementary school from SAU 50 and/or 52 for a climbing experience at our indoor course. Students will continue to journal and set goals daily, and are expected to challenge themselves physically and mentally on a daily basis. Take advantage of the opportunity to enroll in Project Adventure courses for an entire semester.

SPORTS MEDICINE I
Course No. 799, 1/4 Year

Grade 11, 12
.50 Cr

Prerequisite: "B" or better in Biology

This introductory course is designed for anyone considering athletic training, physical therapy, medicine or interested in pursuing careers in athletic training and sports medicine. It will review basic anatomy of the human body and begin prevention, recognition, assessment, management, and rehabilitation of lower extremity sports-related injuries. In addition, sports related illnesses and conditions will be covered. Practical skills in taping and wrapping techniques will be practiced and evaluated throughout the quarter. Written work, projects, oral reports, and observation hours are required.

SPORTS MEDICINE II
Course No. 800, 1/4 Year

Grade 11, 12
.50 Cr

Prerequisite: "C" or better in Sports Medicine I

This course will continue studying the applications of sports medicine. It will review the basic anatomy of the human body and lower extremity sports-related injuries and begin prevention, recognition, assessment, management, and rehabilitation of upper extremity sports-related injuries.

YOGA
Course No. 7980, 1/4 Year

Grade 10, 11, 12
.50 Cr

This course is a vinyasa yoga based class, using hatha yoga. A series of poses will be taught that are both beneficial for the body and for an overall sense of well-being. We will explore the history of yoga as well as the eight limbs, or guiding principles, of the practice. Every class includes practice, journaling, interactive conversations around the theme of the week, and will end in mediation. For those recovering from injuries or are otherwise limited in any range of motion, modifications for all poses are offered. Namaste!

Science

The Science Department offers students a strong basic core of science through the required courses of Physical Science, Earth Science, Biology and Ecology which prepare them for the NECAP in their junior year. Most students continue on to take many of our vast array of electives.

The Science Department offers three academic levels to students taking Science 9, Science 10 and Chemistry. Their former teachers and their guidance counselor recommend students to each level. Students may also apply for the honors level in these courses after their freshman year. Selection is based on grades, classroom performance, and teacher recommendation. Advanced Placement is offered to seniors in Biology and Physics. These students are expected to take the AP exam in the spring.

The Science Department offers a wide variety of science courses taught by an experienced staff. Each elective explores one of the many specialty areas of science and students are also encouraged to create their own Independent Study course, which allows them to branch off from our electives and dive deeper into a particular area of interest. See page 7 regarding Independent Studies.

Students must first achieve passing grades in Physical Science, Earth Science, Biology, and Ecology in order to be eligible to select any other science courses during junior and/or senior year.

REQUIRED COURSES	GRADE LEVEL/ PREREQUISITE
Physical Science	9
Earth Science	9-10
Biology*	9-11/Physical Science
Ecology*	10-11/Physical Science, Earth Science, Biology

The successful completion of all four required courses listed above is a prerequisite for all elective classes.

ELECTIVES: With Teacher Recommendation

Planetary Astronomy	11-12
Oceanography	11-12
Natural Disasters	11-12
Environmental Issues	11-12
Meteorology	11-12
Botany	11-12/B Average in Biology
Zoology	11-12/B Average in Biology
Anatomy and Physiology	11-12/B Average in Biology
Physics of Predictions	11-12
Chemistry**	11-12/Algebra II Recommended
Microbiology	11-12/Chemistry and Algebra II
Physics	11-12/Algebra III or Precalculus
A.P. Biology	11-12/Chemistry and Algebra III
A.P. Physics	11-12/Calculus Concurrently/Physics Recommended

*Four levels available (Applied, College Prep, Advanced College Prep, Honors).

**Three levels available (College Prep, Advanced College Prep and Honors)

HONORS - This level is designed to offer a very challenging educational environment for students who have shown high academic achievement in this discipline in the past.

Honors science students are expected to perform at a higher level in the following areas: use of hypothetical and deductive reasoning; comprehension and application of science concepts while showing attention to detail. Also, writing skills should be above grade level in order to adequately display an understanding of the scientific method. Successful honors students are self-directed and motivated learners. They are also accepting of academic challenge. Science success is coupled with the ability to apply mathematical concepts to scientific questions.

Placement at this level requires student application and acceptance by the faculty through a selective screening process. Honors and/or AP courses are offered in grades 10-12.

In order to adequately prepare for Honors Science, during the summer prior to the course students are required to read designated selections and do specific writing assignments.

REQUIRED COURSES

PHYSICAL SCIENCE **Grade 9**
Required, 1/2 Year **1.00 Cr**

Grade 9 Science is designed to provide a core of scientific knowledge and skills in introductory physics, and chemistry, and to prepare students for other required sciences and the electives offered by the Science Department. Laboratories involving the use of scientific measuring instruments and mathematical analysis are used to develop higher order thinking skills and problem solving. Computer and internet use to do research are important aspects of this program.

EARTH SCIENCE **Grade 9, 10**
Required, 1/4 Year **.50 Cr**

Earth Science is a required course that has been designed to introduce students to concepts that lead to an understanding of the development of the universe and of planet Earth. Examples of some concepts that will be studied in detail are plate tectonics, Big Bang Theory, and geologic time.

Science

BIOLOGY

Required, 1/2 Year

Grades 10, 11

1.00 Cr

Prerequisite: Successful Completion of Physical Science

Biology is designed to provide a core of scientific knowledge and skills needed to prepare students for a variety of science electives offered. Computer technology and internet use to do research are important aspects of this program. Laboratory experience and the study of biological concepts help students better understand their positions as members of the world community.

ECOLOGY

Required, 1/4 Year

Grade 10, 11

.50 Cr

Prerequisite: Successful completion of Physical Science, Earth Science and Biology (may be taken concurrently)

Ecology is designed to introduce students to environmental concepts and issues. An introduction to ecological concepts will include an overview of technological tools used to analyze environmental issues. Local and global problems affecting the environment will be covered including global warming, pollution, deforestation and invasive species. Field work and journal writing will be required.

Students who successfully complete Physical Science, Earth Science, Biology, and Ecology will have met the State's Science requirement for graduation and will have earned three credits in science which is equivalent to three years of science.

SCIENCE ELECTIVE COURSES

Students must first earn three credits in the four required courses in order to be eligible to select any other science offerings during junior and/or senior year. Students may elect to take the following half-credit courses for either a **level 3 or 4**. This does not include Chemistry, Physics, Microbiology, Anatomy or AP Courses. Students opting for a level 4 will be required to complete additional work and a term project. It is recommended that students who seek admittance to competitive colleges or universities select a level 4. Students must decide on the desired class level when they enter courses. Once the student has started the class, the level cannot be changed.

Life and Earth Science Electives

ZOOLOGY

Course No. 442, 1/4 Year

Grades 11, 12

.50 Cr

Prerequisite: Biology

Explore Kingdom Animalia. This course is designed to introduce students to the features unique to each animal phylum. Students will compare and contrast animals based on structure function relationships and the advancements of these animals through the phylogenetic tree. Labs will focus on animal dissections.

ANATOMY AND PHYSIOLOGY

Course No. 444, 1/2 Year

Grades 11, 12

1.00 Cr

Prerequisite: Biology, Chemistry, 483 (Chemistry, 483, maybe taken concurrently)

Explore the human body. This is a course for students who intend to continue their studies in a medical/biological field, or for those that are curious about the relationship between their body's structure and function. Included in this course will be an in-depth study of the anatomy and physiology of the human body. The first quarter of this course will cover the following 5 units: Unit 1, Introduction to the Human Body; Unit 2, Tissues; Unit 3, The Integumentary System; Unit 4, The Skeletal System; and Unit 5, The Muscular System. The second quarter of this course will cover the following 5 units: Unit 1, The Circulatory, Respiratory & Immune Systems; Unit 2, The Digestive System & Nutrition; Unit 3, The Urinary & Reproductive Systems; Unit 4, The Nervous System; and Unit 5, The Endocrine System. Also covered in this course is an introduction to biochemistry, biophysics, embryology, pathology, and forensics. Through the use of dissection, a comparative study of vertebrates will be seen. Due to the intensity of the lab component, there is a limit to the number of students that may take this course. It is recommended that students who seek admittance to competitive colleges or universities for biological/medical studies take this course. Students enrolled in A&P are eligible for a dual enrollment opportunity with Southern New Hampshire University earning four (4) college credits upon successful completion of the course. Cost to enroll in this course through SNHU is \$100.00. One lab credit is available for an additional \$25.00 totaling 4 credits. This represents a substantial savings in college tuition costs.

ANATOMY AND PHYSIOLOGY LAB

Course No. 444L, 1/2 Year

Grades 11, 12

.50 Cr

Anatomy and Physiology Lab is required for all students enrolling in Anatomy and Physiology. The lab will take place

Science

during the modified block and will run concurrently with the course. Through the use of dissection, a comparative study of vertebrates will be seen.

MICROBIOLOGY *Grades 11, 12*
Course No. 446, 1/2 Year *1.00 Cr*

Prerequisite: Chemistry, Algebra II

This course is designed for students who plan to continue their studies in a biological or medical field. This course focuses on the study of microorganisms. Bacteria will be examined in detail using both labs and other activities. Other microorganisms studied will be viruses, fungi and protozoa. Also included in the course work will be the study of various diseases.

BOTANY *Grades 11, 12*
Course No. 448, 1/4 Year *.50 Cr*

This course is laboratory oriented. Plant anatomy and physiology are explored through investigations. Students are required to grow and maintain three species of plant. Their observations of these plants are compiled into a term paper analyzing their growth patterns and responses. Class size is limited.

NATURAL DISASTERS *Grades 11, 12*
Course No. 463, 1/4 Year *.50 Cr*

This course is designed for students who have an interest in the changing world around us. Events that will be discussed will focus on the impacts that they have on our landscape and on human beings. These will consist of meteorological, climatic, geological and astronomical occurrences. A sample of topics that will be covered are volcanoes, hurricanes, avalanches, and meteor impacts.

ENVIRONMENTAL STUDIES *Grades 11, 12*
Course No. 464, 1/4 Year *.50 Cr*

Prerequisite: Successful completion of Biology and Ecology

Interested in learning more about how you can help save the planet? This class explores current innovative concepts focused on fixing environmental issues. Guest speakers and field trips are a big part of the course. A research project is expected.

GROW IT GREEN! *Grades 9, 10, 11, 12*
Course No. 4480, 1/4 Year *.50 Cr*

Ever wonder about what makes plants grow? Or how to create an amazing backyard filled with fresh veggies, fruits and flowers? Grow it Green is designed to help you design, grow and plant your own garden - from seed packet to table! Students will learn the science behind seed germination, pollination, soil science, garden ecosystems, nutrition and much, much more. Students will discover when and where to plant different types of plants and then grow a variety of plants for their own garden. Students will have an opportunity to work in the school gardens and design a garden for their own backyard. During this quarter long class we will also visit a local farm and the Farmer's Market and perhaps have our own Farmer's Market.

PLANETARY ASTRONOMY *Grades 11, 12*
Course No. 452, 1/4 Year *.50 Cr*

This course is designed for students already demonstrating an aptitude for the physical sciences and the fundamental laws of physics, as well as a high interest in learning about this current and expanding field of science. Topics will include the celestial sphere and celestial observation techniques, history of astronomy, laws of planetary motion, star formation and identification including spectroscopy, solar system overview, modern space travel and current space observation techniques, as well as a look at astrobiology and the search for life in space.

METEOROLOGY *Grades 11, 12*
Course No. 459, 1/4 Year *.50 Cr*

This course focuses on introducing the student to basic concepts involved in the analysis of weather on a global and local scale. Major topics include heat balance, atmospheric stability, precipitation, winds, pressure, weather analysis, and basic weather forecasting techniques. This course is designed to allow the student to understand the way the atmosphere effects daily life and the world around them.

OCEANS *Grades 11, 12*
Course No. 462, 1/4 Year *.50 Cr*

This course deals with the physical, biological, and chemical aspects of our oceans. Examples of some of the topics that will be studied are: ocean geology, weather and climate, coastal science, marine life, ocean resources, and ocean pollution, just to name a few. Special emphasis will be placed on our local and regional areas; current research and events will be explored as well as career paths in oceanography.

Science

ADVANCED PLACEMENT BIOLOGY **Grade 12**
Course No. 487, 3/4 Year **1.5 Cr**

Prerequisite: Minimum grade of "B" in Biology, Chemistry, and Algebra I and II recommended.

This intensive elective is for students who plan to continue their college studies in the life sciences. This course has been accepted by the College Board and allows successful students the option of receiving college credit. The key concepts covered in this course center around the big ideas, which encompass the core scientific principles, theories and processes governing living organisms and biological systems. Topics include Ecology, Human Anatomy, Genetics, Biochemistry, Zoology and Botany. Lab experimentation will take up approximately 25% of the instructional time. This course is perfect for dedicated science students who want to challenge themselves! Students are expected to take the AP Biology exam administered by College Board in May.

Physical Science Electives

CHEMISTRY (Level III) **Grades 11, 12**
Course No. 483, 1/2 Year **1.00 Cr**

Prerequisite: Sophomore sciences

This course is designed primarily to meet the needs of students planning to go to college but not major in the science field. This survey class of chemistry puts an emphasis on the conceptual nature of matter. It includes laboratory experimentation and development of the techniques in the handling of chemical materials and apparatus.

CHEMISTRY (Level IV) **Grades 11, 12**
Course No. 4834, 1/2 Year **1.00 Cr**

Prerequisite: Algebra II recommended (can be taken concurrently)

This course is designed primarily to meet the needs of students planning to go to college. It is recommended for those students with stronger math skills and/or entering the fields of science and engineering. This class puts an emphasis on the quantitative as well as the conceptual nature of matter. It includes laboratory experimentation and development of the techniques in the handling of chemical materials and apparatus.

CHEMISTRY-H **Grades 11, 12**
Course No. 485, 1/2 Year **1.00 Cr**

The Honors class investigates the topic of chemistry with faster pace, more depth and increased emphasis on quantitative calculations. Students are expected to have advanced math skills and be capable of learning independently. This class is most appropriate for students with a keen interest in the STEM fields of study for college.

CHEMISTRY II (Advanced Topics) **Grades 11, 12**
Course No. 4852, 1/4 Year **.50 Cr**

Prerequisite: Chemistry (level IV or V). Grade of B+ or better recommended.

This second course in Chemistry is designed to meet the needs of students planning to major in science or a science related field. It is recommended for those students with a keen interest in the subject while possessing strong math and problem solving skills. Units will be presented with a depth, scope and pace that approaches college level work. This class puts an emphasis on the quantitative as well as the conceptual nature of matter. It includes laboratory experimentation and development of the techniques in the handling of chemical materials and apparatus.

PROJECT PHYSICS **Grades 10, 11, 12**
Course No. 4911, 1/4 Year **.50 Cr**

Prerequisite: Physical Science

Project Physics is designed for students who desire to explore physics in a hands-on interactive manner. This course is project based and is intended for all students regardless of physics background. Students will work at their own pace and level of physics expertise on projects that they have chosen. Student work will be largely independent and the topics covered will be based on the interests of the students participating in the course.

PHYSICS **Grades 11, 12**
Course No. 494, 1/2 Year **1.00 Cr**

Prerequisite: Algebra II

This course is designed for the student who plans to continue his/her education in either an academic or

Science

scientific field. Major units include kinematics, dynamics, work/energy principles, momentum, rotational mechanics, and gravitation. By means of appropriate demonstrations, selected laboratory experiments, and the solution of representative mathematical problems, the student develops a knowledge of the application of important physical laws that relate to his/her physical environment.

ADVANCED PLACEMENT PHYSICS I **Grades 11, 12**
Course No. 4951, 3/4 Year **1.5 Cr**

Prerequisite: Algebra II

This course is designed for the student who desires a more challenging program than the traditional high school physics course. Emphasis will be placed on the transition from theoretical physics to problem solving. AP Physics I is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. This course is intended to help prepare students to take the AP Physics I Exam in May.

ADVANCED PLACEMENT PHYSICS II **Grade 12**
Course No. 4952, 3/4 Year **1.5 Cr**

Prerequisite: Algebra III, Physics or Advanced Placement Physics I

This course is designed for the student who desires a more challenging program than the traditional high school physics course. Emphasis will be placed on the transition from theoretical physics to problem solving. AP Physics II is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. This course is intended to help prepare students to take the AP Physics II Exam in May.

ADVANCED PHYSICS **Grades 11, 12**
Course No. 4953, 1/4 Year (Quarter 4 only) **.50 Cr**

Prerequisite: Physics or AP Physics I or AP Physics II

Advanced Physics is designed for students who desire to deepen and expand their knowledge of the topics covered

in previous physics courses. During the first half of the course, student work will be largely independent and the topics covered will be based on the interests of the student's participation in the course. In addition, those students taking an AP Physics exam will hone their problem solving and lab skills in preparation for the exam.

Social Studies

A minimum of three credits of Social Studies is required for graduation. Students must complete the requirements in each of the following areas:

I. World Geography	.50 credit
II. American Studies I	
A. American Government	.50 credit
B. American Studies	.50 credit
III. American Studies II	1.00 credit
IV. Economics	.50 credit

HONORS PROGRAM

Students entering grades 10, 11, or 12 may apply to the Honors and Advanced Placement Social Studies programs. These programs are designed for students who have the ability to work beyond grade level and who desire more advanced study in Social Studies. Candidates for Honors American Studies I (grade 10), Advanced Placement United States History (grade 11), or Advanced Placement European History (grade 12) must obtain an application from Guidance, and submit the required materials to the Guidance Department.

In order to adequately prepare for Honors and A.P. Social Studies during the summer prior to the course, students are required to read designated selections and do specific writing assignments. This work is not to be done in collaboration with others. **Summer work must be submitted by dates announced at the spring meeting. Students who do not submit the summer work by the deadline will earn a "0" on these major assignments.**

I. WORLD GEOGRAPHY **Grade 9 Required .50 Cr**

This course is required for one term. It consists of three units: The Five Themes of Geography, U.S. Geography, and World Geography. In the Five Themes unit, students will learn about Location, Place, Movement, Regions and Interaction. It will include scientific theories and fact. In the U.S. unit, students will learn about their country based on the five themes. There will also be some history and economics. In the World unit, students will learn about the continents and how the five themes are connected. If time permits, some specific countries will be studied.

II. AMERICAN STUDIES I

A. American Government **Grade 10 Required .50 Cr**

All students are required to complete this half credit course. Students will examine the basic principles and ideals of American government at the local, state, and federal levels. The structure and operation of the government will be studied with an emphasis on the students' rights and responsibilities as citizens. Historic and current

examples will be used to enhance student understanding of our government.

B. American Studies **Grade 10 Required .50 Cr**

All students are required to complete this half credit course. Students will trace the history of America from the arrival of the first Europeans to the era of Civil War Reconstruction. Major themes of study include the establishment of the American Colonies, the revolutionary birth of the United States, westward expansion, and the Civil War era.

ECONOMICS **Grades 11, 12 Required .50 Cr** **Course No. 283, 1/4 Year**

NOTE: In addition to the following Economics class, Introduction to Business may be taken to satisfy the Economics requirement.

Does money really make the world go 'round? Why did the stock market crash? Is the American Economic Dream still alive? This required economics course examines these questions and analyzes current economic issues. Five units of study explore basic economic systems, the corporate economy, economic government policy, international economics, and personal finance. Students will compete in an online stock market game and engage in a personal finance budget game.

III. AMERICAN STUDIES II - TWENTIETH CENTURY AMERICAN HISTORY

Prerequisite: American Studies I

One credit in American Studies II is required. Students have several options for fulfilling the American Studies II credit.

1. By choosing *American Studies II Survey* or *Advanced Placement American History*, a student can fulfill the entire American Studies II requirement.

2. The second option is for students to select TWO HALF-CREDIT MINI-COURSES over the junior and senior years.

AMERICAN STUDIES II SURVEY - TWENTIETH CENTURY HISTORY **Grade 11 1/2 Year 1.00 Cr**

Prerequisite: American Studies I

This course will trace the history of the United States of America from the age of Imperialism at the end of the 19th Century to the present day. The course is designed for the student who desires a chronological overview of the numerous topics that took place in recent American

Social Studies

history. Students will examine issues such as America's involvement in foreign policy during the World Wars and the Cold War. Students will also be asked to look at social and economic issues by focusing on the 1920's, the Great Depression and the Civil Rights Movement.

**ADVANCED PLACEMENT
UNITED STATES HISTORY**
Course No. 299, 3/4 Year

**Grade 11
1.5 Cr.**

This challenging college level course is designed for academically advanced students who wish to gain greater insight into American History. The emphasis of this course is on detailed analytical examination of the political, cultural, and economic aspects of American History from the period of exploration through the post World War II era. Students enrolled in this course will be expected to complete daily reading assignments in secondary sources, primary sources and other related materials, and to show evidence of daily preparation by volunteering information, convincing questioning, and responding to questions from the instructor. Extensive research and writing will be required in order to prepare for the document based essays on the AP exam. Students are selected for AP courses based on teacher recommendation.

**AMERICAN STUDIES II MINI COURSES
LEVEL 3 OR 4**

American Studies I and American Government are prerequisites for American Studies II mini courses. Students must take two American Studies II mini-courses to fulfill the American Studies II requirement. Students may elect to take the following half-credit courses for either a **level 3 or 4**. Students opting for a level 4 will be required to complete additional work and a term project. It is recommended that students who seek admittance to competitive colleges or universities select a level 4. Students must decide on the desired class level when they enter courses, you can not change the level once the class is in progress. **These courses are for juniors and seniors only.**

**AMERICA'S ROLE
IN THE WORLD WARS**
Course No. 245, 1/4 Year

**Grades 11,12
.50 Cr**

From "Trench Warfare" to the "Blitzkrieg" the major causes, events, personalities and results of the two most cataclysmic events of the 20th century will be explored. These two wars will be examined by comparing and contrasting how the effects of war impacted our policy makers and our people. A review of the changing conditions inside the United States during both wars will be examined as well as the contributions of women, minorities and others. A thorough examination of the results of World War I and how they in part paved the way to the outbreak of World War II will also be considered.

ANOTHER VIEW
Course No. 253, 1/4 Year

**Grades 11, 12
.50 Cr**

This course is a history of the American people from the point of view of those who have been exploited politically, and economically...the stories of Native Americans, women, the LGBTQ community and other disenfranchised Americans told in their own words. It is a history told from the bottom up by "the despised pool", the alienated and the radicals whose lives have created a counter tradition which is not often presented as a coherent version of American history.

**FROM BOOM TO BUST
(The 20's and 30's in America)**
Course No. 247, 1/4 Year

**Grades 11,12
.50 Cr**

Flappers, Model T's, Prohibition, the Jazz Age, Al Capone, The Great Depression, the New Deal and FDR - few eras in American history offer a more colorful and diverse opportunity to examine the significant social, economic, and political events of a time period that saw our country go from the golden opportunities of the twenties to the deep economic troubles of the thirties. From the famous Scopes Monkey Trial to the Lindbergh baby kidnapping; from the solo flight of "Lucky Lindy" to the crash of the stock market, the events of the 20's and 30's offer the student insights into two distinct eras that left an indelible mark on the history of 20th century America.

**HAPPY DAYS:
THE 50'S IN AMERICA**
Course No. 249, 1/4 Year

**Grades 11,12
.50 Cr**

This course is an examination of one of the most misinterpreted decades in American history. Students will look at the often seen social aspects of the decade, the onset of Rock and Roll, the television boom, suburbia and the family. Students will also look at what was really going on: McCarthyism and the Red Scare, the Korean War, and the grass roots Civil Rights Movement. Was this decade really Happy?

**MODERN AMERICA:
70's, 80's, 90's AND BEYOND**
Course No. 243, 1/4 Year

**Grades 11, 12
.50 Cr**

From Watergate to George W. Bush, how have the past thirty years in America impacted our current world? In this course, students will examine the recent past and apply their knowledge to their lives and the events in America and the world today. Students will learn how the United States emerged victorious from the Cold War to become the primary world leader. Students will also examine how both liberal and conservative political forces have shaped public policy, how the economy has shifted from an industrial to information base, and how society and culture reflect the themes of this time period.

Social Studies

THE COLD WAR Grades 11,12
Course No. 257, 1/4 Year .50 Cr

From post World War II through 1989 a relatively silent war occurred: the Cold War. In this class students examine the buildup of nuclear weapons after World War II by both the United States and it's allies and the Soviet Union and it's allies. The worldwide threat of a nuclear war led to many conflicts between the 'Big 2' that will be examined: the Korean War, the Cuban Missile Crisis, and the Vietnam War. Students will also examine attempts that were made socially and politically to put an end to the nuclear build up. The course will culminate with the fall of communism in Eastern Europe and how that event shaped the current world structure.

**THE TURBULENT DECADE:
THE 60'S IN AMERICA** Grades 11,12
Course No. 259, 1/4 Year .50 Cr

From peace, love, and granola to Woodstock, Kennedy, the Chicago eight and the Vietnam War, the focus of this course will be the controversial history of the 1960's and how the American social scene affected this history. Students will be expected to understand the history first and then be ready to examine how the American people reacted to events through a variety of avenues: passive inquisitiveness, violence, peaceful protests, assassination, folk music, riots and rallies. Does the legacy survive?

**AMERICAN STUDIES II MINI-COURSES
LEVEL 3**

The following listings are half-credit courses. They may only be taken for a **level 3**. **These courses are for juniors and seniors only.**

Prerequisite: American Studies I

CURRENT ISSUES IN AMERICA Grades 11,12
Course No. 262, 1/4 Year .50 Cr

As the title implies, the focus of this course is on the here and now. Starting with the daily headlines, we will follow important evolving events while researching pertinent historical influences on the events. Students should expect daily assignments from periodicals, magazines, video news, and the Internet. Class discussion, debate small group research activities and individual presentations will be expected. The purpose of this course is for students to become involved in the daily affairs of the nation and world so they may become knowledgeable, concerned, and active citizens.

SPORTS HISTORY IN AMERICA Grades 11,12
Course No. 261, 1/4 Year .50 Cr

American History and the connection that sports has to it makes up a vital component of our society and culture. In this class, students will examine the impact that the world

of sports has had on our ever-changing American History during the 20th and 21st centuries. Historical issues such as economics, gender equality, racism, world events, and sports scandals will be a few of the topics covered. Students will leave this class with a better understanding of American History and the major role that sports plays in it.

YOU AND THE LAW Grades 11,12
Course No. 264, 1/4 Year .50 Cr

What are your rights in the eyes of the law? Have you ever wondered about the laws involved in random drug testing, search and seizure, teen driving, Internet access, and freedom of speech and expression? In this class, students will be expected to look at all points of view on some of this century's most controversial court cases and how these landmark court decisions have a direct effect upon the individual. Critical arguments concerning the conflict between preserving the rights of the individual versus the rights of society will also be examined.

SOCIAL STUDIES ELECTIVE COURSES

NOTE: These courses do NOT fulfill the American Studies II requirement

**ART HISTORY-MEDIEVAL TIMES TO
THE FRENCH REVOLUTION** Grades 9, 10, 11, 12
Course No. 2744, 1/4 Year .50 Cr

This course will provide students with an introduction to the study of Art History. Students will work on analyzing various works of art and architecture, from Medieval times through the 18th Century. Students will learn about Byzantine, Medieval European and Islamic, Renaissance, Mannerist, Baroque, Rococo, and Neoclassical styles in European Art. In addition, students will learn about a variety of forms of Art and Architecture from Asia and the Americas. Students will practice presentation and writing skills throughout the course. They also will be encouraged to work in an interdisciplinary way, using literature, history, religious history, and music to best understand the art and architecture of each time period.

**ART HISTORY-FRENCH REVOLUTION
TO THE PRESENT** Grades 9, 10, 11, 12
Course No. 2745, 1/4 Year .50 Cr

This course will provide students with an introduction to the study of Art History. Students will work on analyzing various works of art and architecture, from the 19th - 21st centuries. Students will learn about many movements such as Neoclassicism, Romanticism, Realism, Impressionism, Post-Impressionism, Expressionism, Cubism, Data and Surrealism and contemporary art in European and World Art. In addition, students will learn about a variety of forms of Art and Architecture from Asia and Africa, as well as about the gradual globalization of Art, Architecture,

Social Studies

and Fashion in the 20th and 21st Centuries. Students will practice presentation and Writing skills throughout the course. They also will be encouraged to work in an interdisciplinary way, using literature, history, music, and other disciplines to best understand the art, architecture, and fashion of each time period.

COMPARATIVE WORLD RELIGIONS
Course No. 268, 1/4 Year

Grades 10, 11, 12
.50 Cr

This course has been designed to introduce the serious student to the basic concepts and practices of the world's major belief systems. Each religion is examined in an historical context and includes the impact of religion on social, political, and cultural traditions. Living in our current day global society it is imperative that we understand and appreciate our neighbors, their frame of reference, philosophies and religious convictions. This course provides the framework needed to enhance this vision. Students will be afforded an opportunity to gain additional insight into the diversity of the religious experience by presenting individual projects of their choosing.

CONTEMPORARY GLOBAL ISSUES
Course No. 270, 1/4 Year

Grades 10, 11, 12
.50 Cr

This course explores current issues that shape our world and affect us as members of a global community. Topics to be examined include Europe in the post-communist era, the effects of nuclear weapons, the role of underdeveloped nations, terrorism, the impact of disease around the world, as well as a study of global cultural and moral concerns. Students will utilize texts, current periodicals, newspapers, with a focus on modern foreign films to gain a deeper understanding of his/her role not only as an American citizen, but as a global citizen.

EUROPEAN STUDIES
Course No. 286, 1/4 Year

Grades 10, 11, 12
.50 Cr

Students will examine four units of study that will focus on Renaissance, Reigns, Religion and Rivalries. This course will include European art, music, politics and the overall impact of how European history has impacted the world. Modern European topics will include government, warfare and the ever changing European Union. Students who elect this course will focus on European history and have a better understanding of Western Civilization.

HOLOCAUST STUDIES
Course No. 163, 1/4 Year

Grades 11, 12
.50 Cr

This interdisciplinary 1/2 credit course will be offered jointly through the English and Social Studies departments to juniors and seniors. Juniors or seniors may take this to fulfill .50 credit required social studies elective. The Social Studies portion of this course will include the

history of anti-Semitism, Jewish life in Europe before the Holocaust, the aftermath of WWI, and the Nazi rise to power. Students will analyze the political and social conditions of this period and apply them to current violations of human rights in order to promote dignity and freedom of all people today.

PSYCHOLOGY
Course No. 272, 1/4 Year

Grade 11, 12
.50 Cr

The focus of this **survey** course is on the various theories and principles of the science of human behavior. Equally as important is the opportunity for students to apply these concepts to their own lives. The emphasis is always on individual and not group or societal behavior. Some of the course content is taken from contemporary sources.

SOCIOLOGY
Course No. 273, 1/4 Year

Grades 11, 12
.50 Cr

This course is an examination of our society and the institutions we established to fulfill our needs and expectations. Careful analysis of group values, attitudes and behaviors is required. Students will be introduced to various research designs and asked to apply these to current social problems.

THE MODERN MIDDLE EAST
Course No. 265, 1/4 Year

Grades 11, 12
.50 Cr

For thousands of years the Middle East has been marked by an extraordinary history. In recent history the Middle East has also become an area of deep interest and concern for the United States. This course will examine the Modern Middle East through the study of its geographic, cultural, religious, history, and the internal conflicts that are impacting the rest of the world. Specific topics of study may include analysis of the Arab/Israeli conflict, the current war against terrorism, and the cultural shifts in the Middle East.

ADVANCED PLACEMENT EUROPEAN HISTORY
Course No. 275, 3/4 Year

Grades 11, 12
1.5 Cr

The Advanced Placement European History course is designed to challenge academically advanced students and give them an opportunity to earn college credit by taking the AP exam. The course emphasis is on the development of Western Civilization from the Renaissance to the present. The study includes the political and diplomatic, cultural and intellectual, and social and economic history of Europe. The students will be expected to do daily readings in a college text, primary sources, secondary sources and other related materials. Research projects of different types will be required. Students will learn how to write document based essays to prepare for the advanced placement exam. Students are scheduled for AP courses based on teacher recommendation.

Student Academic Services

STUDENT ACADEMIC SERVICES

The Student Academic Services (Special Education Department) at the high school offers a variety of services to students who require specialized instruction. Students have been referred and have had a formal evaluation and were found eligible for an Individualized Education Plan to support their education. An Individual Educational Plan is developed to address accommodations and/or modifications needs and goals to address academic, social/emotional and/or transition needs. Services are provided based on the student's level of performance and individual needs as determined by his/her Student Evaluation and Placements Team (SEPT). More specific information regarding Student Academic Services may be obtained by contacting the SAS Department at Portsmouth High School (436-7100, extension 2939).

ACADEMIC STUDY CENTERS

Students may work in small groups or one-to-one with a Student Academic Services staff member. Emphasis is placed on students developing the necessary organizational and academic skills for success in all disciplines. Study Center is designated time to implement the goals and support the modifications and/or accommodations according to student's Individual Educational Plan. Students in Study Center classes have the opportunity to develop effective study skills while completing course assignments. Focus is on specially designed programming that could include development of executive functioning skills, reading and writing instruction, social skills, social emotional regulation, self-advocacy skills and scheduled time with specialists. A weekly contact system with content area teachers has been established so that Study Center teachers are aware of current course requirements and student's academic and behavioral performance.

SUPPORTS FOR LEARNING/DEVELOPMENTAL PROGRAM

Supports for Developmental Learning is designed for adolescents age 14-21 that require an individual approach to their academic and/or vocational program. Each student's program is individually designed to meet his/her needs by

providing education on the continuum ranging from full inclusion to self contained. The team consists of parents, teachers, paraprofessionals, specialists, area agencies, peer tutors and the Portsmouth community.

The goals of Supports for Learning are: to provide the student with the least restrictive learning environment; to create opportunities and build skills to reach each student's maximum potential in the following curriculum areas: academic experiential learning, communication, social skills, and community; to assist in a gradual transition from the school to the community with the involvement of family and outside agencies; to create a positive culture that offers a safe environment, which enhances desire to learn; to develop inclusive relationships among peers, staff and community.

COUNSELING

This is a continuum of services addressing values clarification, communication skills, socialization skills, relationship building, decision making, social and personal problem solving, conflict resolution, and personal advocacy skills. The services are designed to enhance students' personal resilience and proficiency in an academic setting. Services are provided through group discussion, family-school collaboration, individual coaching, contracting, and the coordination of school and community services.

RELATED SERVICES

Student Academic Services provides the following related services:

- Speech and Language
- Occupational Therapy
- Physical Therapy
- Adaptive Physical Education

These related service personnel implement parts of the IEP's in conjunction with and in support of special education programming.

TV Production and Broadcasting

**PPMtv VIDEO
PRODUCTION**

Course No. 8230, 1/2 Year

Grades 11*, 12*

1.00 Cr

THIS COURSE MAY BE TAKEN MORE THAN ONCE.

Are you interested in working at a professional video production studio? Do you want to write, shoot and produce a news show or special reports? Then PPMtv Video Production is the class for you! In this hands on class, students will learn the ins and outs of video production at Portsmouth Public Media TV (PPMtv) Channel 98 with the guidance and instruction of a professional television producer. Using small camcorders and computerized (nonlinear) editing techniques, students learn professional methods to tell a story. The Clipper News Report, which airs to Portsmouth High School and on community television, Channel 98, is a major focus of this class.

***Permission of CTE Director is required. Students must provide their own transportation to and from Portsmouth High School and the PPMtv studio.**

Visual Arts

All courses in the Visual Arts Department may be taken to satisfy the Fine Arts Education requirement. A grade of "C" or better is required in prerequisite courses.

The visual arts program is interdisciplinary in nature and integrates culture, history and writing through the art process. Emphasis is placed on critical thinking, problem solving and expression. A positive work ethic and respect for the studio space is expected. Peer and self-assessment are also an important component of each course.

Students not able to schedule advanced courses, but have met the prerequisite may be integrated within beginning sections **only with permission of the instructor. Continuing students reinterpret the same curriculum as the other students, revisit it in new ways and work more independently at a higher level. The student, with guidance from the teacher, will develop one independent project.

FUNDAMENTALS OF ART **Grades 9, 10, 11, 12**
Course No. 701, 1/4 Year **.50 Cr**

The Fundamentals of Art course is a prerequisite for all visual arts courses. This course explores two and three-dimensional art forms. The elements and principles of design are taught through diverse projects and styles of art. Students will use drawing, painting, printmaking and sculpture through a variety of materials to create works of art. All students will demonstrate an understanding of line, color theory, and value in all mediums.

DRAWING **Grades 9, 10, 11, 12**
Course No. 710, 1/4 Year **.50 Cr**

Prerequisite: Fundamentals of Art

Drawing is the basis for all art making. Students will draw from life in a way that involves their observations, imaginations and emotions. Line, value, and perspective are emphasized using a variety of drawing styles through still life, the figure, landscape and portraiture. The foundations of drawing are taught through a variety of mediums.

ADVANCED DRAWING **Grades 10, 11, 12**
Course No. 716, 1/4 Year **.50 Cr**

Prerequisite: Drawing. Permission of the instructor is required. **See third paragraph in the introduction section of Visual Arts.

This course incorporates a more in-depth study of drawing using a variety of subject matter, mediums, styles and techniques.

PAINTING **Grades 9, 10, 11, 12**
Course No. 711, 1/4 Year **.50 Cr**

Prerequisite: Fundamentals of Art

Students experience the expressive act of painting through observation and the study of color. A variety of painting styles are explored through still life, the figure, portraiture, landscape and perspective. The foundations of painting are taught through a variety of mediums.

ADVANCED PAINTING **Grades 10, 11, 12**
Course No. 706, 1/4 Year **.50 Cr**

Prerequisite: Painting. Permission of the instructor is required. **See third paragraph in the introduction section of Visual Arts.

This course incorporates a more in-depth study of painting using a variety of subject matter, mediums, styles and techniques.

INTERMEDIATE DRAWING AND PAINTING **Grades 10, 11, 12**
Course No. 712, 1/4 Year **.50 Cr**

Prerequisite: Painting and Drawing

This course incorporates an in-depth study of drawing and painting. New subject matter, mediums and styles are explored. The students will work on developing a more personal style. Assistance in portfolio preparation is available.

ADVANCED DRAWING AND PAINTING **Grades 11, 12**
Course No. 715, 1/4 Year **.50 Cr**

Prerequisite: Intermediate Drawing and Painting. Permission of Instructor required. **See third paragraph in the introduction section on this page.

This rigorous course is designed for experienced students who wish to study two-dimensional art at the highest level. Sophisticated ideas and techniques are intensively explored in a variety of styles through printmaking, drawing, and painting. Large and small-scale works are created. The use of drawing, painting and printmaking mediums and methods are further explored and refined. Students compile and document a portfolio of their work.

PRINTMAKING **Grades 9, 10, 11, 12**
Course No. 713, 1/4 Year **.50 Cr**

Prerequisite: Fundamentals of Art

The traditional and contemporary use of the various processes are explored. Prints are made through experimentation with color and repetition with a variety of colored inks, papers, plates and blocks. Students explore printmaking techniques such as stamping, etchings, relief printing and monotypes. Mixed media, text, combination printing and collage and are used with composite prints and alternative formats.

ADVANCED PRINTMAKING **Grades 11, 12**
Course No. 714, 1/4 Year **.50 Cr**

Prerequisite: Printmaking. Permission of Instructor required. **See third paragraph in the introduction section on this page.

This course incorporates a more in-depth study of printmaking using a variety of printmaking techniques such as relief printing, etching, and monotypes.

Visual Arts

HANDBUILT POTTERY *Grades 10, 11, 12*
Course No. 720, 1/4 Year .50 Cr

Prerequisite: Fundamentals of Art

The course is designed to explore uses of clay for functional and non-functional artworks. Students will use pinch, coil, slab and extruded methods of construction and create projects using several combined methods. Relief, carving, glazing, underglazing, and engobes, colored slips, and mix media are explored for surface treatments. Students are expected to understand and apply 3-D and ceramic vocabulary and demonstrate their understanding of these terms. Studio maintenance including recycling, kiln loading, glaze mixing and clean-up are the responsibility of the students.

ADVANCED HANDBUILT POTTERY *Grades 11, 12*
Course No. 721, 1/4 Year .50 Cr

Prerequisite: Handbuilt Pottery. Permission of Instructor required. **See third paragraph in the introduction section on page 53.

The course is designed to rigorously explore the uses of clay for functional and non-functional artworks. A thorough understanding of the elements of design and handbuilt pottery is necessary for this course. The course will integrate pinch, slab, coil and extruded methods in a variety of projects. A variety of surface treatments: relief, carving, oxides, wax resist, multi-media are used to enhance more complex forms both functional and non-functional. Students will keep glaze notes, use and apply 3D and ceramic vocabulary during the course. Studio maintenance including recycling, kiln loading, glaze mixing and clean-up are the responsibility of the students.

WHEELTHROWN POTTERY *Grades 10, 11, 12*
Course No. 722, 1/4 Year .50 Cr

Prerequisite: Handbuilt Pottery

Students acquire basic skills in wheel-thrown pottery using electric wheels. Integrating handbuilt techniques and wheel-thrown pieces as well as glazing techniques, and a variety of surface treatments will be developed. Students will use glaze notes, principles and elements of design. 3D vocabulary and ceramic vocabulary during the course. Record keeping including processes, glazes, and dimensions of each piece will be the responsibility of the students. Studio maintenance including recycling, kiln loading, glaze mixing and clean-up are the responsibility of the students.

ADVANCED WHEELTHROWN POTTERY *Grades 11, 12*
Course No. 723, 1/4 Year .50 Cr

Prerequisite: Wheelthrown Pottery. Permission of Instructor required. **See third paragraph in the introduction section on page 53.

This course is an intensive use of the wheel as well as integrating other methods of clay construction. The students

are expected to be self-starters and develop their skills fully as well as exploring the work of contemporary potters. Students will keep glaze notes, use and demonstrate their understanding of 3D and ceramic vocabulary during the course. Studio maintenance including recycling, kiln loading, glaze mixing and clean-up are the responsibility of the students.

SCULPTURE *Grades 9, 10, 11, 12*
Course No. 724, 1/4 Year .50 Cr

Prerequisite: Fundamentals of Art

Students create three-dimensional art including masks, figures, mobiles, stabiles, puppets. A variety of materials will be used including clay, wire, wood, cardboard, paper mache, and mixed media. Additive and subtract methods will be used. Large and small scale sculptures will be created and the assets and drawbacks of each will be discussed. Students will demonstrate their understanding of 3D vocabulary in a variety of ways including artwork, written, oral presentations and group discussions. An introduction to famous sculptors will be included. Students are responsible for studio maintenance including organizing materials and clean-up each day. Sketch books are graded in this course as in class work and homework.

ALTERNATIVE PHOTOGRAPHY *Grades 10, 11, 12*
Course No. 730, 1/4 Year .50 Cr
\$40.00 Lab Fee

Prerequisite: Fundamentals of Art

Students create both camera and camera-less images in this course using Black and White chemistry in the darkroom. Students will learn how to use a 35mm film camera, how to develop film and enlarge prints in a darkroom to create a portfolio of work. The history of photography, alternative processes such as photograms and using photographic dyes will be explored.

PHOTOGRAPHY I *Grades 10, 11, 12*
Course No. 731, 1/4 Year .50 Cr
\$40.00 Lab Fee

Prerequisite: Alternative Photography

Students will learn about various photographers and further their understanding of composition. Students will have weekly photoshoots using a 35mm camera and custom enlarge and print in the darkroom to develop a portfolio of work. Students will learn about the cyanotype process by creating digital negatives and using them for contact printing.

PHOTOGRAPHY II *Grades 10, 11, 12*
Course No. 732, 1/4 Year .50 Cr
\$40.00 Lab Fee

Prerequisite: Photography I

Students will fine tune skills learned in Photography I and explore digital photography through editing with Adobe Photoshop. Portfolio work will be completed throughout the course.

Welding

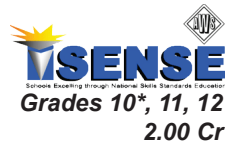
WELDING

Welding is a program that provides students an opportunity to acquire entry-level skills for employment as well as an entry into an apprenticeship program. The program offers practical experience enabling each student to identify with the welding industry. The career options in the welding industry are wide and varied. They include such options as follows: welder, metal fabricator, heavy equipment repair, pipefitter and steel worker. Communication skills, a year of physical science and good mathematical skills will enhance ones career opportunities.

INTRODUCTION TO WELDING Grades 9, 10, 11, 12
Course No. 946, 1/4 Year .50 Cr
(preference given to grade 9, 10)

An introduction is provided to welding, one of the principle means of fabricating metal products. Industry has found that welding is an efficient, dependable and economical means of joining metal in fabricating operations. Students will acquire knowledge of the properties of metals and be able to demonstrate skills in oxy-acetylene welding, flame cutting and arc welding through construction of various joint designs and projects.

WELDING TECHNOLOGY I
Course No. 948, Full Year



In this course, the basics of shielded metal arc, oxy-acetylene welding and flame cutting with blueprint reading, mathematics and operation of metal fabrication machinery are covered extensively. Emphasis is also placed on shop safety and the development of good work habits such as: punctuality, dependability and responsible behavior. Activities designed using practical application under simulated industrial conditions, develop proficient levels skills in the use of oxy-acetylene and SMAW fillets and groove welds.

WELDING TECHNOLOGY II
Course No. 949, Full Year



Prerequisite: Welding Technology I

Students will continue to improve and refine their welding skills while working towards mastery. Focus will be on skill levels commensurate with American Welding Society

standards. Goals will include passing competency tests. Fundamental fabrication techniques will be explored with the opportunity for students to design and build individual projects. Students will continue to hone their skills in welding including horizontal and vertical welds. GMAW, GTAW and FCAW will be introduced and practiced in fillets and groove welds both in and out of position. Greater clarity about roles in the workplace will be part of the entire program. Students completing this program will be prepared to enter an apprenticeship program or to enter post-secondary study.

***Incoming 10th graders may apply for admission. See School Counselor for application.**

*Student initiated course changes
will not be allowed after the
second day of any quarter!*
