



# **Portsmouth High School**

Portsmouth, Rhode Island

## **PROGRAM OF STUDIES**

**2021 - 2022**

### **SCHOOL ADMINISTRATION**

Thomas Kenworthy, Ed.D., Superintendent of Schools

Elizabeth Viveiros, M. Ed., Assistant Superintendent of Schools

Joseph N. Amaral, M.Ed., M.A.T., Principal

Paige Kirwin-Clair, M.Ed., Associate Principal

Colin Grimsey, M. Ed., Dir. of Freshman Academy

Chad Smith, M.Ed., Director of Student Services

Amanda Turcotte, M.Ed., Interim Director of Student Services

### **PORTSMOUTH SCHOOL COMMITTEE**

Emily Copeland, Chair

Juan Carlos Payero, Vice-Chair

Thomas Vadney, Clerk

Frederick Faerber

Isabelle Kelly

Karen McDaid

Allen Shers

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### **DEPARTMENT SUPERVISORS**

Athletic Director - Stephen Trezvant  
Career & Technical Education (CTE) Programs/Fine Arts - Diane Creese  
English - Don Carrara  
Health & Physical Education - Joel DeMarco  
Library / Media Services - Sarah Hunicke  
Mathematics - Jeff Rose  
Modern World Languages - Lynn Hoegen  
Science - Nycole Noble  
Social Studies - Marilyn Thompson  
Special Education - Brooke Grant

### **SCHOOL COUNSELORS IN THE GUIDANCE DEPARTMENT**

<b><u>Counselor</u></b>	<b><u>Grade 10</u></b>	<b><u>Grade 11</u></b>	<b><u>Grade 12</u></b>
Megan Donohue	A-G	A-G	A-F
Melissa Bellotti	H-O	H-M	G-N
Katherine Marino	P-Z	N-Z	O-Z
Erin Phillips	All 9th Grade Students		

## **SCHOOL BELIEFS AND EXPECTATIONS FOR STUDENT LEARNING**

### **PORTSMOUTH HIGH SCHOOL'S BELIEFS ABOUT LEARNING:**

It is our expectation that Portsmouth High School graduates will demonstrate the ability to:

1. We are all members of a safe, supportive, and accepting community
2. All community members have unique talents to contribute
3. All community members are responsible for teaching and learning
4. All students have access to a diverse, verified and reliable curriculum with authentic learning opportunities
5. All community members have opportunities to explore ideas and achieve
6. All graduates will be college and career ready

### **ALL PATRIOTS WILL LEARN TO:**

It is our expectation that Portsmouth High School graduates will:

1. Access and critically analyze information to answer questions and explore ideas
2. Solve problems through prioritizing and planning for results
3. Write proficiently for a variety of purposes
4. Communicate effectively in a variety of formats
5. Interpret and design visual messages for specific purposes
6. Engage in work with integrity, both independently and collaboratively
7. Demonstrate knowledge and skills through the use of technology

### **TITLE IX NON-DISCRIMINATION**

In accordance with the policies and regulations of title IX of the Educational Amendments of 1972 and the Portsmouth School Committee, all courses offered at Portsmouth High School are open to all students. It is the policy of Portsmouth High School to avoid discrimination against any student on the basis of age, gender, race, religion, national origin, color or handicap in accordance with applicable laws and regulations

### **NEASC ACCREDITATION**

Portsmouth High School is fully accredited by the Commission on Public Secondary Schools of the New England Association of Schools and Colleges, the nation's oldest accrediting agency. The last accreditation visit by a NEASC team was in April 2016.

## **SCHOOL COUNSELING PROGRAMS AND SERVICES**

The mission of the PHS school counseling program is to provide comprehensive programs and services that enable all students to develop the educational, career, social and emotional maturity necessary to become responsible, self-directed individuals and life-long learners. This is achieved through providing a planned program of both individual and group activities that involve parents, students, staff members and out of school resources and agencies.

**Planned programs each year include:**

- Train students to use Naviance software
- Individual Learning Plans (ILP) - Goal setting and post-secondary planning
- College Planning Night for juniors and their parents
- Junior Group Guidance – post secondary planning with Naviance
- Financial Aid Night
- ASVAB test administration
- Senior seminars – post secondary planning and college application support with Naviance
- Promotion of scholarships
- New student orientation and breakfast
- College representative's visitation program – 85+ college and university representatives visit annually
- PSAT8/9 for all Freshmen
- PSAT10 in school for all sophomores
- PSAT/NMSQT and SAT in school for all juniors
- Course registration assemblies, information and one-on-one meetings with each student annually
- Freshmen Orientation programs
- Grade 8-9 transition programs
- Eighth grade parents' night
- Junior Awards Assembly
- Senior Awards Night

**Additional School Counseling Services**

- Individual and small group counseling
- Crisis intervention
- Referral to school psychologist, school social worker, and student assistance counselor
- Referrals to outside and system wide programs and agencies
- Consultations with other professionals

Counselors are available to meet individually with students before and after school and during the school day by appointment, to discuss any concern – academic, social, emotional, or post-secondary. Students are encouraged to see their counselors as often as needed, but will have scheduled appointments as well, initiated by the counselor or student.

## **THE PORTSMOUTH HIGH SCHOOL DIPLOMA PLAN**

Portsmouth High School graduation requirements are in compliance with The Rhode Island High School Diploma System as prescribed by the Board of Regents for Elementary and Secondary Education. The requirements are in place to ensure that Portsmouth High School graduates are able to demonstrate proficiency in the seven learning expectations outlined under School Beliefs and Expectations for Student Learning.

The course of study for all students at Portsmouth High School will include rigorous common demonstrations of proficiency for all courses and common end of course examinations. In addition, prior to graduation all seniors must have successfully completed at least one of the following options in order to ensure all Portsmouth students are well prepared to embark upon their intended college or career pathway:

- a. Completion of a Career and Technical Education program, including an embedded capstone or a related student exhibition project.
- b. Completion of a RIDE sanctioned and Local Education Agency (LEA) approved pathway, including an embedded capstone or related student exhibition project.
- c. Completion of a Student Exhibition project - a RI Department of Education recognized performance-based diploma assessment option.

### **Course requirements for graduation, beginning for the Class of 2022**

English	4 credits
Mathematics	4 credits
Social Studies (including US History)	3 credits
Science	3 credits
Physical Education/ Health	2 credits
Technology	0.5 credits
Fine Arts	0.5 credits

### **COURSE DISTRIBUTION REQUIREMENTS**

All Portsmouth High School students will complete an approved financial literacy experience before graduating. This experience can include a school-approved financial literacy course or program. Students must meet all the above distribution requirements and accrue a total of 23 credits including electives.

All potential graduates must complete the state assessments prescribed by the Rhode Island Department of Education if they are enrolled at Portsmouth High School during the grade that is tested.

Following the procedures established by the high school principal, students will be certified to be eligible for graduation by the principal immediately following the close of grades for seniors at the end of the fourth marking period. Only students certified by the principal are eligible to receive a Portsmouth High School Diploma and to participate in graduation ceremonies.

In order to be eligible for a Portsmouth High School diploma, a student must have, at minimum, been enrolled as a Portsmouth student for the final semester of the senior year.

Students with an Individual Education Plan (IEP) who complete the prescribed diploma requirements will receive a diploma that does not differentiate from the diploma received by children who do not have disabilities. This includes students who achieve modified proficiency standards requiring significant interventions under federal and state regulations and who are eligible for the alternate assessment as defined by the state of Rhode Island.

Criteria for students who qualify for alternate assessment are as follows:

- Successful completion of a minimum of 23 credits inclusive of core, transition, and career/life experiences courses. Coursework may include internship, activities of daily living instruction, career exploration, Science, Technology, Engineering, Arts, Mathematics, etc.
- Participate in Work Based Learning Experiences as part of a Career Development Plan and completion of a Making Action Plan Meeting (MAPs).
- Participate in Alternate Assessment

Eligible students who meet these criteria may participate in graduation ceremonies at the end of their fourth year of high school, or during the year in which they turn twenty-two years of age.

Students denied participation in the graduation ceremony may file an appeal in writing to the principal. If denied by the principal, the appeal may be presented following normal appeal procedure through the office of the superintendent, followed by an appeal to the school committee, and if necessary to the Rhode Island Department of Education.

#### **FOUR YEAR COLLEGE PREP RECOMMENDATIONS**

The recommendations below are considered minimum requirements. Competitive college admissions requirements would be higher.

English	4 credits
Social Studies	3 - 4 credits
Mathematics (through Algebra 2)	3 - 4 credits
Science (2 lab sciences minimum)	3 credits
Foreign Languages (same language)	2 - 3 credits
Technology	0.5 credits
Physical Education/ Health	2 credits
Electives	6 - 8 credits

#### **SUMMER READING/PROJECTS**

Summer reading may be required for all students in Grades 9-12. Additionally, certain courses may require additional reading and/or summer projects for the students who elect them. Students electing honors courses should expect additional summer assignments. Specific information will be provided in the spring at the time of course registration. Failure to complete summer assignments may affect a student's grade. Transfer students will be granted a reasonable period of time to complete summer assignments.

## **CHANGE IN PROGRAM**

Occasionally, factors such as low student subscription and/or availability of staff makes it impossible for some courses to run in a particular school year. PHS administration makes every effort to meet student needs, but there is no guarantee that every course listed in the Program of Studies will run every year.

Because of the importance of class sizes and continuity in courses, individual changes in student programs ***will not be accepted after the 10<sup>th</sup> school day from the start of each semester***. A request for changes beyond this date will only be considered after written input from parents, teachers, school counselor, and an administrator indicates the student has been improperly placed and continued enrollment in the course would constitute an undue hardship. The burden to present evidence is greater if the student is enrolled in a course that did not follow the recommendations of the sending teacher/department chair.

Dropping a course after the change-in-program deadline will be reflected on the student's transcript as WD (withdrawn) if the student had a passing grade at the time of the withdrawal or a determination is made of improper placement. Students who withdraw with a failing grade will receive a designation of WF (withdrawn failing).

## **PROGRAM OF STUDY WAIVERS**

In keeping with the PHS commitment to develop individual students' intellectual curiosities, students may apply for a waiver of any requirement listed in the Program of Studies. Waiver requests must be signed by a parent and submitted in writing to the building principal. Waivers may be granted in the event of undue hardship and are done without setting precedent.

## **TRANSFER OF CREDITS TO PORTSMOUTH HIGH SCHOOL**

When a student transfers to PHS from another accredited secondary school, every effort will be made to translate a student's transcript onto his/her PHS record. Grades from the sending institution will be accepted at face value and will be calculated in accordance with our school's grading system. Transferring seniors will be required to complete a Senior Project in order to be eligible for graduation. As a public institution, Portsmouth High School does not recognize credits earned for faith-based, religious courses.

## **COURSE SELECTION PROCEDURE**

Every effort will be made to provide each Portsmouth High School student with an appropriate, challenging course of study. Selection of courses and levels will reflect teacher and counselor recommendations. Parents who wish a student to be placed in a level higher than that recommended for the student will be asked to sign a statement of understanding, indicating the student will be enrolling in a level that differs from the school's recommendation.

## **SPECIAL PROGRAMS**

### **ALTERNATIVE LEARNING PROGRAM**

The Portsmouth High School ALP is a "school within a school" program that services students who are at risk academically due to social, emotional, behavioral and/or learning problems. The mission of the ALP is to



provide a highly structured, small class setting where students can experience behavioral and academic growth and success, so that eventually they can experience the same success in our regular program of studies.

Academic instruction includes a core curriculum commensurate with the goals and abilities of each student. There is a referral process for this program to ensure appropriate student placement and students must be pre-approved to register (see Guidance Counselors for more information). An ALP screening committee meets to review referrals, make decisions regarding placement in the program, and to provide ongoing support and assessment. Regardless of the level of participation or length of stay in this program, students who have completed the required curriculum and earned a minimum of 23 credits, will receive a Portsmouth High School diploma.

### **LITERACY SUPPORT**

This intervention course has been designed to provide students with opportunities to develop and apply critical reading and thinking skills through guided, shared, and independent reading. During Literacy Lab, students receive intensive instruction aligned to the Common Core State Standards in reading comprehension, vocabulary development, and oral reading fluency. The instructional focus is on specific strategies and skills that students will be able to apply to all content areas. Students will also be exposed to a variety of genres, including high interest fiction and nonfiction texts, magazines, newspapers, online materials and test preparation. The goal of the Literacy Lab is to not only to increase the student's reading proficiency but to also increase their motivation and engagement with the entire reading process. This course is a literacy intervention provided to students as a follow up to the reading screening assessment (STAR) administered three times a year to all students in grades 9-12. It is offered during a portion of a student's Learning Center. Students who require this intervention are identified using a set of decision rules created by the interventionists.

### **MATH INTERVENTION**

The goal of Math Intervention is to provide supports to students to help them meet success in their mathematics. Supports include, but are not limited to; homework guidance, extra practice materials, pre-teaching concepts, reteaching, and reviewing problem solving strategies for material covered in their specific math course (Algebra II or Geometry). Students may also be exposed to Standardized Test Prep through the use of Khan Academy. This course is a numeracy intervention provided to students in grades 9-12. It is offered during a portion of the student's Learning Center. Students who require this intervention are identified using a set of decision rules created by the Mathematics Department including STAR scores and Teacher Recommendation.

### **EARLY ENROLLMENT PROGRAM**

The Early Enrollment Program (EEP) is a school/college partnership. Its function is to offer high school students an opportunity to earn credits towards college while completing their high school diploma without leaving their high school campus. Students should strive to earn no less than a B- average in all EEP courses if they expect to transfer the credits. Once the students are accepted to a college, courses are transferred with credits earned and not with a designated grade. Students are responsible for requesting transcripts from the partnering college to the colleges they plan to attend.

### **ADVANCED PLACEMENT**

There is a formal Advanced Placement Program in English 11, English 12, Calculus, Statistics, Computer Science A (JAVA), Computer Science Principles, U. S. History, European History, Psychology, Biology, Chemistry, Physics (AP1, APC), Environmental Science, Spanish, Music Theory, Art History, and Studio Art

(Drawing; 2D Design; Photo;3D Design). Enrollment is open to all students who have completed the necessary courses. **All enrolled students are encouraged to take the AP exam in May in order to potentially receive post-secondary credit for the course.** There is a fee of approximately \$95.00 for each exam. Cost of the exam is the responsibility of the student and family.

### **NEWPORT AREA CAREER AND TECHNICAL CENTER (NACTC)**

Programs of career and technical education are offered for students in grades 9 through 12 at the Newport Area Career and Technical Center. Students must apply to NACTC through the PHS Guidance Department, and will receive an interview with a counselor from the Career and Tech Center. Registration for these programs is consistent with course registration timelines at PHS.

## **EDUCATIONAL OPTIONS**

The Portsmouth School System is committed to providing increased opportunities for students to learn outside of the traditional, formal school program of studies. Some of these opportunities are briefly described below. Students should keep in mind that these programs require advance planning. Students are encouraged to see their counselor for the specific requirements, criteria and timelines associated with each program.

### **COLLEGE-HIGH SCHOOL COOPERATIVE PLAN (Running Start)**

Portsmouth High School, in conjunction with colleges in the area participates, in a cooperative plan whereby students may receive high school graduation credit, in addition to college credit by attending an accredited college. Students who wish to participate in this program on a full-time basis must indicate their intent to their school counselor prior to the start of their junior year. Part-time participation may be permitted during the junior year with approval of the school Principal.

### **WORK EXPERIENCE PROGRAM**

A work experience program is available to students who meet special requirements. This program is designed to meet the needs of students by offering academic credit for on-the-job experiences. Refer to the final page of the Program of Studies for more information. **(Seniors only)**

### **INDEPENDENT STUDY**

Occasionally independent study programs can be developed for individual students who, by special arrangements with a sponsoring teacher, are seeking to accomplish one of the following:

- further develop specific skill or interest area for which no course exists;
- who have exhausted all the course offerings in a particular discipline;
- who need a course which cannot be accommodated in his/her schedule.

These courses or programs can be either a semester or a full year in length and must be approved by the principal. Credit is awarded accordingly. Interested seniors should see their counselors for more information.

## ENGLISH

### English Department Mission Statement

Portsmouth High School, in conjunction with the Rhode Island Board of Regents for public education, is committed to literacy proficiency for all our students. Instruction emphasizes integration of reading, writing, listening, speaking, and thinking skills with quality literature. These skills and thinking strategies are incorporated into units of study. A wide variety of texts and genres, such as short stories, novels, informational text, nonfiction, poetry, drama, and author studies are utilized throughout the year, addressing common core state standards as determined by the Rhode Island Department of Education.

### Expectations for Student Learning in English:

Courses also focus on Portsmouth High School's applied learning skills:

- critical thinking
- problem solving
- communication
- decision making
- analytical reasoning
- personal and social responsibility

### Our English curriculum:

- fosters an interest in and a love of reading for information, wisdom, and pleasure
- provides students with the knowledge, structure, and history of their language
- helps students to clarify their thinking and express it clearly and logically
- leads students to the aesthetic application of literature, to a joy in good writing, and the tools for understanding the meaning of various texts

### School-wide Learning Expectations Addressed in English:

Expectation 1: Access and critically analyze information to answer questions and explore ideas.

Expectation 3: Write proficiently for a variety of purposes.

Summer reading may be required for each course. Students must pass the Common Course Assessments (CCA) for each course in order to earn course credit. CCAs are validated by an interdisciplinary committee for alignment to standards, rigor, relevance, reliability, universal design, and lack of bias.

**ENGLISH 9:** The focus for instruction includes an integrated approach to grammar, speaking, composition, and literature skills.

#### 1002 - English 9

**1 credit**

#### 1003 - English 9 Honors

**1 credit**

This course is for incoming grade nine students who have command of the basic skills in reading and writing. The course will build literacy proficiency by integrating literature, composition, listening skills, speaking skills, and grammar. A student's placement will be determined by reading standardized test data, previous grades and performance, and teacher recommendation.

Recommendation: To enroll in English 9 Honors, highly motivated students should have earned a grade of A- in Grade 8 English.

**ENGLISH 10:** The focus for instruction includes speech, composition, vocabulary development, and a combination of classic and contemporary literature.

**1011 - English 10**

**1 credit**

**1012 - English 10 Honors**

**1 credit**

This course will build upon the skills introduced and emphasized in English 9, increasing literacy proficiency by integrating literature, composition, listening skills, speaking skills, and grammar. A student's placement will be determined by reading standardized test data, previous grades and performance, and teacher recommendation.

**Recommendation:** To enroll in English 10 Honors, highly motivated students should have earned at least an A- in English 9, or a B in English 9 Honors.

**ENGLISH 11:** The focus for instruction includes American literature, both fiction and non-fiction, and composition. Classic American Literature (AP English Language and Composition) is available for motivated juniors.

**1035 - English 11**

**1 credit**

This course will use American literature as a vehicle to build upon skills introduced and emphasized in English 10. Students examine American fiction, primary documents, non-fiction, and art through cultural, critical, and historical lenses. A student's placement will be determined by a school-wide reading assessment battery, standardized test data, previous grades and performance, and teacher recommendation.

**1037 - AP English Language & Composition**

**1 credit**

This course is designed for the highly motivated and intellectually curious juniors to the elements of argument, rhetoric and style, and which takes its content from the canon of American Literature (nonfiction and fiction). This course will enhance a student's ability to function competitively in college with the reading and study demands they will experience. Students entering this class should be mature and self-directed learners. There will be a summer reading assignment that must be completed by the first day of school.

**Recommendation:** To enroll in AP English 11, students should have earned at least an A- in English 10, or a B in English 10 Honors.

**ENGLISH 12:** The focus for instruction includes student choice based on interest: British literature and contemporary literature as the vehicle for expository writing, English Literature & Composition, Comedy and writing for Publication & Social Justice and Creative Writing.

**1041 - English 12: British Literature**

**1 credit**

This study of British and/or contemporary literature includes readings by selected major authors and provides an overview of how the language and literary forms developed as the needs of society changed. The course enhances the student's ability to function competitively in college and in the workplace. Expository writing on literary topics is a major focus. A student's placement will be determined by a school-wide reading assessment battery, standardized test data, previous grades and performance, and teacher recommendation.

**1042 - English 12: Comedy and Writing for Publication****1 credit**

In lieu of the standard English 12 course, students may select this option for their senior year. This particular course will introduce students to the different theories of comedy, while also focusing on writing for publications. Beginning with a look at classic comedy students will engage in a study of how comedy has evolved over time. Students' study will include exposure to various types of humor, including farce, satire, dark comedy, parody, slapstick and screwball humor. Texts will range from essays by David Sedaris and Garrison Keillor to *Catch-22*, *Waiting for Godot* and Trevor Noah's *Born a Crime*. Students will also watch examples of comedy. In conjunction with this work, students will learn the fundamentals of print and online media. Additionally, students will also learn how to interview, write news, features, sports articles and blogs, while keeping in mind their respective audience. There will also be an emphasis on their own voices as writers in terms of clarity, precision and accuracy.

**1043 - English 12: Social Justice and Creative Writing****1 credit**

In lieu of the standard English 12 course, students may select this option for their senior year. This particular course will help students develop a critical understanding of social justice literature and how it can be used to raise awareness of a particular issue or underrepresented community. This course will study different literary genres, including writing by women, and minority authors, and may include scholarly and critical essays on literature. As a forum for their voices to be heard, students will also have multiple opportunities to write creatively about these issues. Fiction, poetry and essays will be used as a foundation for discussion/debates, and students will be given the platform to share their ideas via debates, peer critiques and journaling.

**1045 - English 12: AP English Literature & Composition****1 credit**

This course is designed for the highly motivated and intellectually curious student. Learning materials are drawn from college and Advanced Placement reading lists. This course will enhance students' ability to function competitively in college with the reading and study demands they will experience. Students entering this class should be mature and self-directed learners. Reading units will be arranged thematically, and writing assignments will be of a critical and interpretive nature. There will be a summer reading assignment that must be completed by the first day of school.

**Recommendation:** To enroll in AP English Literature & Composition, students should have earned an A- in English 11 or a B in AP English Language & Composition or provide suitable evidence to the department chair that they have the necessary motivation and work ethic.

**ENGLISH ELECTIVES** Electives may be taken for elective credit, but do not fulfill English graduation requirements.

**1049 - College Composition (EEP)****.5 credit**

College Composition is a college-level writing course that is offered in conjunction with the University of Rhode Island. This course is designed to prepare students for the type of writing they will do at the college level. Students will engage in the writing process including writing drafts, peer revision and editing. At the conclusion of the semester, students will have written five different types of essays including the personal narrative (college essay), a research paper, an argumentative paper and a rhetorical analysis. The assessment for this course will be a portfolio of finished essays. Successful completion of this course will earn students credit for URI's Writing 104. Students and their families are financially responsible to obtain the 3 credits from URI.

**1053 - Theater Arts I (Offered Odd years)****.5 credit**

Theatre Arts I is a survey course examining all the elements of theatre: physical movement, text selection and analysis, the collaborative process of a production staff, stage pictures, acting theory and technique, and, of course, performances via monologues and scene studies. Students selecting this class must be willing to participate fully on a daily basis and do the necessary preparation outside of class. Participation in and completion of all components is necessary for success in this course. May be taken to satisfy Fine Arts graduation requirements.

**1054 - Theater Arts II (Offered Even years)****.5 credit**

Theatre Arts II is open to students who have successfully completed Theatre Arts I and wish to study the subject in depth and with more focus. Units include the study of movement through a series of focused exercises, script development and analysis, the study of the elements of comedy, an examination of acting theory, and several performances, and possibly even directing projects. The final exam consists of several memorized and contrasting monologues, one of which must be written by the student, presented in a single memorized performance. Students selecting this class must be willing to participate fully on a daily basis and do the necessary preparation outside of class. Participation in and completion of all components is necessary for success in this course. May be taken to satisfy Fine Arts graduation requirements.

**1056 - Language of Literature And Film****.5 credit**

The Language of Literature and Film will provide high school juniors and seniors with multiple opportunities to improve the way they read, think, write and speak about a variety of visual texts and narrative texts. The course hopes to show how the two types of texts are, in fact, very similar. The students will examine adaptations of novels and short stories, and then evaluate the accuracy of the adaptations. This course will also introduce students to storytelling in both the classic and contemporary films.

**Recommendation:** Preference given to 11th and 12th graders.

**1057 - Science Fiction Film And Literature****.5 credit**

Science Fiction Film and Literature will provide students with multiple opportunities to study a popular genre using film, literature and informational text. From the works of Ray Bradbury, Philip K. Dick, Isaac Asimov and even Stephen King to high profile films such as Jurassic Park, Alien, E.T. and The Hunger Games, students will trace the science fiction genre from the 1950s through the 21st century. Throughout the units of study, students will also examine larger concepts of alien invasion, machine and cyborg intelligence, futures for gender, and the implications when one tampers with science. In order to demonstrate their knowledge, students will apply critical thinking and visual literacy skills as they discuss and write about their discoveries.

**Recommendation:** Preference given to 11th and 12th graders.

## **1058 - Introduction to Film (EEP)**

**.5 credit**

This course is designed to give students who have already taken the prerequisite, Language of Literature & Film an opportunity to deepen their understanding of film analysis. Through an exploration of films selected and agreed upon by the respective English departments of Rhode Island College, CCRI, and URI, students will further explore cinematic techniques and directorial choices(camera angles, soundtrack, mise en scene, lighting, casting, and acting). Students will be expected to articulate their critical evaluation of film both in major writing assignments and in small and whole class discussion groups.

**Prerequisite:** Language of Literature and Film

## **FINE ARTS - ART**

### **Art Department Mission Statement**

The Fine Arts department encourages all students to work to their fullest potential in music and visual art. We offer students multiple pathways for success through courses aligned to the National Core Art Standards. National Core Arts Standards are divided into four artistic processes: **Creating, Performing/ Presenting, Responding and Connecting**. Curriculum in the arts will align and assess these key artistic processes. Students graduating from Portsmouth High School are required to complete a minimum of .5 credit in the arts. Students intending to pursue careers in the arts are encouraged to follow a rigorous path of study. We offer many courses at the Honors, Advanced Placement (AP), level as well as Rhode Island College Early Enrollment Program (EEP).

### **Expectations for Student Learning in Fine Arts:**

Fine Arts courses are aligned with Portsmouth High School's Core Values & Beliefs and all of the 21<sup>st</sup> Century Learning Expectations.

### **School-wide Learning Expectations Addressed in Fine Arts:**

Expectation 4. Communicate effectively in a variety of formats.

Expectation 5. Interpret and design visual messages for specific purposes.

Expectation 6. Engage in work with integrity, both independently and collaboratively.

Expectation 7. Use technology to discover and demonstrate knowledge.

### **Visual Arts and Design**

The Visual Arts and Design program supports all students as they work to their fullest potential within the art courses offered at Portsmouth High School. To provide students with multiple pathways for success, we offer foundation art, drawing, painting, ceramics, printmaking, art history, photography, sculpture, advanced art, museum studies and advanced placement studio art. A student selecting to fulfill their graduation requirement in the visual arts must demonstrate proficiency by fulfilling the National Core Arts Standards in Visual Arts and Design. In each course students learn about the history of art, potential career paths, how to look at and critically analyze art through reading, writing, critique and reflection of one's own work and the work of others. The department fosters cultivation of each student's personal voice in communicating their vision through a range of media and processes. Students learn how to organize and document their work, and present to a variety of audiences both digitally and through exhibition of their best work. The department brings in

professional artists, alumni, art school representatives and industry partners give students real world industry experiences. Students applying to college for art or a double major are supported through the application process of meeting portfolio requirements. Students visit museums and galleries to see historical and contemporary works of art to gain a broader global perspective of visual art.

### **The CTE Academy of Visual Arts & Design**

The CTE Academy of Visual Arts & Design is a rigorous program designed for the students who are interested in pursuing a career in the arts. Students will learn the essential skills to be prepared to enter the workforce or go on to attend a two or three year degree program in the arts. Students will learn to communicate effectively, solve problems critically, take initiative and manage their time on projects as well as demonstrate professionalism working with peers and industry partners. Upon completion of the Visual Arts pathway, the candidate is expected to demonstrate their skill and talent through a substantial portfolio of artwork, exhibit creativity through visual problem solving and present their work through exhibition. Students will demonstrate their skills by learning to work with a broad range of materials such as pencil, charcoal, collage, paint, printmaking, digital media, sculpture and product design. At all levels of our program, students will develop a global perspective of art history. There will be a variety of experiences visiting artists, alumni and art schools as well as carefully designed field trips to enhance the studio art experience. Students will learn how to document and present their portfolio to art schools. Students will cultivate the interpersonal skills to work collaboratively in a classroom setting as well as our industry partners in art education, gallery and museum education. Students will demonstrate applied learning through the completion of 80 hours of work-based learning on an industry project. A sustained and thoughtful investigation of a specific visual idea will be explored through the creation of twelve works. Students will be introduced to and develop relationships with the Portsmouth Artist Guild, the DeBlois Gallery and the Newport Art Museum where they will learn about careers in Art History, Art Education, Architecture, Museum Education, curatorial work and Gallery Exhibition.

**In order to fulfill the requirements for the CTE program, students must complete the following courses with a B or better and they must complete 80 hours of work-based learning that culminates with a Senior Thesis Exhibition.**

- Innovations of Visual Art & Design (Honors) Level 1
- Advanced Visual Art & Design (Honors) Level 2
- Advanced Placement/2D Art & Design or 3D Art & Design
- Advanced Placement Art History

Students will also be required to be a part of the National Art Honor Society and complete 20 community service hours that may be applied towards the CTE program.

#### **1852 - Innovations In Visual Art & Design Honors (CTE Level 1)**

**1 credit**

This course will provide students with hands-on experience in utilizing the design process for projects such as drawing and concept work, product design, architectural rendering, and three dimensional structural sculpture. Students will further their studies of art and design by critiquing exemplars of good design, along with composing his/her own design ideas. Students will be introduced to historical and contemporary artists relevant to this curriculum.



**1855 - Advanced Visual Art & Design - Honors/EEP (CTE Level 2)****1 credit**

The essentials of drawing, color theory, two dimensional and three dimensional designs and the elements and principles of design are reviewed, practiced and applied with an emphasis on exploring and developing a unique approach to these concepts and skills. Art history relative to the 19th and 20th centuries is incorporated throughout the course. This course is meant to prepare students to be successful in our AP Studio Art courses. Assistance with portfolio preparation and college information is given to those interested in pursuing a post high school education in art.

**Recommendation:** Innovations in Visual Art & Design (Honors), Drawing, and or Painting.

**Note:** Students may receive credit from Rhode Island Colleges Early Enrollment Program (EEP) with successful completion of the course. Students will be required to create and present a final portfolio consisting of 10-15 art works.

**AP STUDIO ART COURSES (CTE Level 3)**

Students must select one of the following AP courses and complete a final portfolio consisting of a concentration of art work to be presented in a final senior thesis exhibition along with completing 80 hours for their industry project.

Students in the Academy may also select to take additional visual arts & design courses to build their artistic skills and the breadth of their portfolio.

**1859 - AP Art History (CTE Level 3)****1 credit**

This course offers students a global perspective of art history. Students will have the opportunity to explore, in depth, the history of art from ancient times to the present. Through readings, research, visual images, videos, and museum visits, students will view significant artworks from around the world. Writing skills will be important in the description, analysis, and comparison of these works. Students will participate in classroom discussions and analyze significant historical events, art periods, styles, specific artworks, and issues or themes that connect these artworks as well as culminating projects reinforcing artistic concepts.

**Recommendation:** This course is required for students enrolled in the CTE Academy of Visual Arts & Design and highly recommended for students planning on attending art school or those who love the study of architecture, and history.

**1860 - AP 2-D Art and Design (CTE Level 3)****1 credit**

This course covers portfolio preparation for students attempting to receive College Board credit in studio art. This course is designed for students working two-dimensionally. During the first semester, students will work on developing their skills across a wide variety of subject matter and media. Students selecting the 2D-Design Photography strand will work in digital photography. During the second semester, students create a self-directed body of work that exemplifies their skills and interests in either drawing, 2D-Design or Photography. The class period will serve as their advisory and assignment period, students are expected to have the skills and motivation to work independently to fulfill the assignments.

**Requirement:** Minimum grade of B or better in Advanced Visual Art & Design Honors (EEP) or permission of the instructor.

**Note:** Students wishing to fulfill Digital Photo Portfolio requirements must take Digital Photo 1 and Advanced Digital Photo or instructor's permission.

**1861 - AP 3-D Art and Design (CTE Level 3)****1 credit**

Students in this course may also be concurrently enrolled in Advanced Ceramics and/or Sculpture. During the summer and the first quarter, students will work on developing their skills across a wide variety of subject matter and media. During the second semester, students will create a self-directed body of work organized around a central visual idea that exemplifies their skills, media preferences and a thorough investigation of their interests. The class period will serve as an advisory, an assignment, studio and critique period. Students are expected to have the skills and motivation to work independently to fulfill assignments and requirements outside of class.

**Requirement:** Completion of Advanced Visual Art & Design - Honors/EEP with a B, Advanced Ceramics and Sculpture, and instructor's permission.

**1821 - Introduction to Art****.5 credit**

This course provides an introduction to the visual arts. Students will learn to utilize the elements of art to develop their visual literacy skills and communicate more effectively through the visual arts. This class provides the essential information and basic skill building opportunities that are necessary to begin to design, problem solve and create theme and community based visual art projects.

**Recommendation:** For 9<sup>th</sup> & 10<sup>th</sup> grade students that are looking to fulfill their Fine Arts credit.

**1840 - Digital Photo I****.5 credit**

This course will introduce students to a variety of major topics, artists, and styles of photography throughout the world. The focus will be on straight and altered photography, using Photoshop and other digital imaging technologies. Students will study photography's role in society. Students will learn the fundamentals of the art of photography and composition while developing their own aesthetic vision. Students develop electronic portfolios to demonstrate achievements in visual literacy utilizing the photographic medium.

**The following level II studio courses require the foundation courses that are listed above. The courses are open to 10, 11, 12 grade students.**

**1841 - Printmaking (Offered Even Years)****.5 credit**

In this course the student explores the processes of creating works of art through the medium of printmaking, including but not limited to monotypes, monoprints, relief and etching. Students will study historical works that relate specifically to printmaking. A drawing background would be helpful for this course.

**1845 - Sculpture (Offered Odd Years)****.5 credit**

All students will explore methods for creating three-dimensional forms while learning a variety of techniques and methods for working with various media. Students will begin with basic building skills to increase their ability to communicate ideas three dimensionally. More complex processes such as armature sculpture, direct carving, and assemblage will be introduced as students work with materials such as paper, wire, plaster and found objects. Sculpture throughout art history will provide the inspiration for many projects.

**1862 - Painting****.5 credit**

The painting student is encouraged to uncover, explore and develop his/her own creativity and artistic potential through working with a variety of painting styles and media. Principles of strong composition and color theory are an important part of the course. Painting media include tempera, watercolor, acrylic, oil, oil pastels, and mixed media. It may be helpful and/or necessary for the student to purchase some of his/her own supplies.

**1863 - Drawing****.5 credit**

This course offers students an opportunity for a concentrated development of drawing skills. Approximately one half of the course is devoted to the practice of basic drawing skills including, contour drawing, gesture drawing, sighting, basic perspective, and value study. The other half of the course provides the student with the opportunity to apply these skills in the creation of more sophisticated and individualized compositions. Media include pencil, charcoal, pastel, pen and ink, ink wash and scratchboard.

**1868 - Ceramics & 3D Exploration****.5 credit**

This course allows students to explore ceramic works of art and explore additional materials. Students will construct projects using handbuilding techniques with an emphasis on sculptural design. Students study the lifestyles, techniques and production of various cultures throughout history, as well as contemporary works of art. While working in clay, students will have an opportunity to experiment with various methods of creating structures, working the surface and glazing. Additional materials and projects may be introduced to expand skills in the 3-D arts.

**1869 - Advanced Ceramics****.5 credit**

This course is designed for students who have developed a serious interest in ceramics and want to expand upon their basic knowledge to develop more creative and original artworks. Emphasis is on individual approaches to building and wheel throwing. Course offers 3D portfolio development and preparation for AP 3D Studio Art.

**Recommendation:** For students who have successfully completed Ceramics I. Students may follow this course with AP 3D Studio Art..

**1871 - Advanced Digital Photo****.5 credit**

The goal of this course is to expand and explore photographic styles, utilize studio lighting, and build portfolios. Students also work with Photoshop and complete multiple series of works that demonstrate skill in the photographic medium utilizing traditional and altered techniques. Career opportunities in photography will be explored. The class serves as an ongoing critique/assessment venue, preparing students for further study. Students are expected to demonstrate the skills and motivation to work independently outside class, in addition to what they produce in the lab/studio. Advanced Photo is a continuation of Photo I.

**Recommendation:** Successful completion of Digital Photo I or permission of instructor. May be taken twice to prepare for AP 2-D Studio Art: Digital Photography and portfolio development.

## FINE ARTS - MUSIC

### Music Department Mission Statement

The music program encourages all students to work to their full potential within the music courses offered at Portsmouth High School. For the success of our students, we offer several choral, instrumental programs, music theory, music history, guitar, keyboard and music technology.

#### 1960 - Guitar

**.5 credit**

This course explores music through the discipline of guitar playing. The students will gain a basic knowledge of proper playing habits, basic chord progressions and note reading. Students also participate in small ensemble playing. Each student is encouraged to provide his/her own guitar since there is a very limited number of instruments available. If students wish to use electric guitars, no practice amps or pedals are allowed in class. No previous knowledge of the guitar is necessary.

#### 1961 - Piano

**.5 credit**

This course explores music through the discipline of piano playing and reading music notation. Basic music composition will be introduced through the use of free online composition tools. The student will gain a basic knowledge of keyboard structure, playing songs in a successive progression of difficulty. Emphasis is on reading notation and playing simple melodies with basic chord progressions. No previous knowledge of piano is necessary.

#### 1963 - Concert Chorus

**1 credit**

This course is open to singers of any ability. Emphasis is placed on the improvement of vocal skills, music literacy, and performance through the use of part-singing. The chorus presents several concerts each year that include classical, popular, and contemporary literature. All performances are mandatory. New members are required to have a placement audition for voice part assignment.

#### 1964 - Vocal Ensemble

**1 credit**

This is a select group of singers interested in performing challenging SSA literature from all periods and styles. Emphasis is placed on music literacy and performance. Members of the Vocal Ensemble join the concert chorus for all major concerts. In addition, they perform several times a year in the community.

**Recommendation:** Open to 10<sup>th</sup>- 12<sup>th</sup> grade students by audition and with teacher approval for voice part placement.

#### 1966 - Select Choir

**1 credit**

The concert choir is a performing ensemble for men and women (SATB). The choir performs challenging literature from all periods and styles of vocal music with an emphasis on a Capella singing. The focus of the course is to develop music literacy through singing. Students in Concert Choir join the Select Chorus for all major performances. In addition they present several concerts during the year in the community and at festivals. All performances are mandatory.

**Requirement:** Successful completion of at least one year of high school chorus plus audition with director or permission from the director.

**1970 - Symphonic Band****1 credit**

This course is open to students in grades 9th through 12th. Band literature at a medium level will be studied and performed. Emphasis is placed on musicianship and the development of music fundamentals. Performances include football games, parades, school concerts, festivals, and any other functions at which the band is asked to perform. Course requirements will include after school rehearsals, attendance at regular classes, a week of band camp (usually the last week in August), and participation in the marching band. **Note:** Members of this group and the wind ensemble will be combined for marching band.

**1971 - Wind Ensemble****1 credit**

Band literature at a medium to advanced level will be studied and performed. Emphasis is placed on musicianship and working together to produce a well balanced sound. Performances include football games, parades, school concerts, festivals, and any other functions at which the band is asked to perform. Course requirements include: after-school rehearsals, attendance at regular classes, a week of band camp (usually last week in August), and participation in the marching band. **Note:** Members of this group and the symphonic band will be combined for marching band.

**Recommendation:** Open to students in grade 10, 11, and 12 by audition and with teacher approval.

**1972 - AP Music Theory (*Offered Odd Years*)****1 credit**

Students who wish to study music theory for an entire year will enroll in the AP class. Students should be highly motivated and interested in musicianship, elementary theory, harmony and dictation, structure of music, etc.

**Recommendation:** Successful completion of Fundamentals of Music course or permission from instructor.

**1973 - String Ensemble****1 credit**

This class is open to all students with or without previous string playing experience. Beginning students will learn to care for, tune and proficiently play one of the four orchestral instruments: violin, viola, cello or double bass. Students with previous playing experience will have the opportunity to play more challenging repertoire. A wide variety of music repertoire is explored for school and community performance events throughout the school year.

**1975 - Fundamentals of Music****.5 credit**

This class will cover the basics of music literacy and is designed to enable students with any level experience in music to develop their musical understanding. Units of study will include: Music Theory, Music History, and music composition. With music theory, students will learn how the combination of melody, harmony and rhythm develop music. Critical listening will allow them to understand how the music they already know and enjoy is created. These skills will allow you the ability to compose and arrange their own music. This class is highly recommended for a student wishing to take the AP Music Theory class.

**1977 - History of Rock and Roll (Offered Even Years)****.5 credit**

The History of Rock 'n' Roll is a semester based elective. It is an in-depth study of the origins of popular music in the 20th century and the social and historical context that gave birth to Rock and Roll and related genres and musical offshoots. From blues and country to punk and heavy metal, students will familiarize themselves with landmark groups, music and movements of different periods, to explore connections between modern music and the artists who have made an impact socially and musically to popular music today. The goal of this course is to help students understand the music that they are listening to: where it comes from, what it is made of, and where it is going. Listening and video examples will be analyzed to uncover the makeup of the music. Students will discuss how Rock and Roll has influenced other cultures and even how other cultures have influenced the development of Rock and Roll.

**1978 - Music Production & Engineering EEP - Level I****.5 credit**

Music Production & Engineering is designed for the student who is interested in music, but may not play an instrument. This class will spend much of the time exploring the newest forms of digital sound recording and manipulation on the computer through a process called sequencing. Students will research on-line resources and work from sound programs such as Audacity, Soundation, and Mixcraft to create music without performing on traditional instruments. Students will be creating their own songs from the computer as well as arranging well-known popular, jazz, classical, and folk songs. In addition to audio digital recording students will learn sound production and engineering for school events, concerts and drama productions.

**Prerequisite:** Playing an instrument or the ability to read music is NOT necessary for the course, but is beneficial. Students may receive credit from Rhode Island Colleges Early Enrollment Program

**1979 - Music Production & Engineering - Level II****.5 credit**

This course is designed for students who have successfully completed the Music Production and Engineering I class. Concepts taught in a level one course will be reinforced through more rigorous coursework. Students will work on advanced topics and create projects in the area of music creation, recording, and producing. Students who take this course will learn to create contemporary music in a variety of styles, from techno, dubstep to Rock. Students will gain a deeper understanding of many aspects of contemporary music, including, beats, harmony, bass lines, grooves, melodies, synthesis, audio/MIDI editing, effects processing, sound design, performance, and mixing. Students will explore different topics in creating music for film.

**Prerequisite:** Students must successfully complete Music Production and Engineering Level I

## **HEALTH & PHYSICAL EDUCATION**

### **Physical Education Department Mission Statement**

Our mission is to promote and foster the concepts and skills needed to acquire and maintain a healthy lifestyle in a society that is becoming increasingly sedentary.

### **Expectations for Student Learning in Health & Physical Education:**

- Access and gather Health & Fitness information through reading, writing, listening and the use of technology for the development of a personal fitness plan.
- Critically analyze information that impacts on an individual's Health and Fitness such as information contained in a food label.
- Utilize effective problem solving strategies in regards to decision making in emergency situations and employ proper first aid procedures.
- Communicate effectively with others in the Physical Education setting by demonstrating good sportsmanship and communicating effectively in the promotion and exhibition of Health Education concepts and ideas.
- Apply knowledge, skills, and values learned in Health and Physical Education, and a wide variety of other disciplines, to formulate a plan to attain personal goals.

### **School-wide Learning Expectations Addressed in Health and Physical Education:**

Expectation 1: Access and critically analyze information to answer questions and explore ideas.

Expectation 6: Engage in work with integrity, both independently and collaboratively.

### **Students must successfully complete the following four classes in Health & Physical Education as a graduation requirement.**

#### **1909 - Health & Physical Education 9**

Grade 9 ♦ .5 credit

This course is designed for all students and involves activity and instruction in soccer, track and field, basketball, project adventure, fitness and recreational games as well as nutrition, abstinence, dating/relationship violence prevention, HIV/AIDS, and substance abuse prevention.

#### **1910 - Health & Physical Education 10**

Grade 10 ♦ .5 credit

This course is designed for all students and involves activity and instruction in tennis, softball, volleyball, floor hockey and fitness and recreational games, as well as first aid & CPR, mental and emotional health, family life education & domestic violence prevention, major health risks and current health topics.

#### **1911 - Health & Physical Education 11**

Grade 11 ♦ .5 credit

This course is designed for all students and involves activity and instruction in flag football, lacrosse, badminton, team handball, fitness, project adventure and recreational games as well as health careers, sexually transmitted diseases, coping with stress, healthy relationships and domestic violence, substance abuse treatment and cost to society, and current health topics.

## **1912 - Health & Physical Education 12**

Grade 12 ♦ .5 credit

This course is designed for all and involves activity and instruction in archery, personal fitness, tennis, softball, recreational games, golf as well as cpr/first aid, childbirth and parenting, domestic violence prevention, drug and alcohol abuse, stress/ mental health and current health topics.

**HEALTH & PHYSICAL EDUCATION ELECTIVES:** PE Electives may be taken for elective credit, but are not a substitute for Health and Physical Education

## **1913 - Sports Medicine**

.5 credit

This course is designed for students interested in careers in athletic training, physical therapy, fitness, and other sports medicine fields. The course will cover units including, but not limited to, the sports medicine team, gross anatomy, injury prevention, protective equipment, characteristics of sports trauma/injury, injury assessment and evaluations, basic taping, basic rehabilitation, and drug use in athletic settings. The curriculum will include lectures, guest speakers, labs and field experience.

## **1914 - Personal Fitness**

Grade 12 ♦ .5 credit

This course is open to juniors and seniors who wish to engage in an intense, rigorous, comprehensive, and individualized physical fitness regimen. The curriculum will include cardiovascular fitness, strength training, flexibility, personal weight management, and nutrition.

# **MATHEMATICS**

## **Math Department Mission Statement**

The mission of the Portsmouth High School Mathematics Department is to provide students with an educational experience in mathematics that helps prepare students for successful roles in an ever changing society. Students are challenged to develop skills in analysis, reasoning, collaborative learning, and verbal articulation the mathematical concepts they are introduced to. We maintain high academic expectations for all our students, make meaningful use of in person classroom experiences, and encourage all students to achieve their full potential.

## **Expectations for Student Learning in Mathematics:**

Math courses offered are aligned with the Common Core State Standards and with Portsmouth High School's Mission and Student Learning Expectations. All courses require all students to:

- Analyze math information and demonstrate acquired math knowledge and skills through formative and summative assessments – including comprehensive course assessments (CCAs), oral participation and projects.
- Solve math problems numerically, algebraically, geometrically and graphically.
- Communicate both independently and cooperatively to logically organize the problem solving process.
- Demonstrate proper techniques and strategies, utilizing technology, for effective problem solving.
- Use mathematical terminology in oral and written explanations.
- Access and gather mathematical information through the use of various technologies.



## **School-wide Learning Expectations Addressed in Mathematics:**

Expectation 2: Utilize effective problem solving strategies

**\*\* Students should be aware that exceptions to sequences and recommendations are discouraged. However, exceptions are allowed for valid reasons and with the approval of the Department Chairperson. Any student wishing to enroll in two math courses simultaneously must have teacher and Department Chairperson approval.**

### **1218 - Algebra 1**

**1 credit**

Algebra 1 will cover the Common Core State Standards that pertain to Algebra 1. Topics may include, but are not limited to: writing and simplifying expressions; solving, graphing, and writing linear, exponential, and quadratic equations, inequalities and functions; solving systems of equations and graphing systems of inequalities; simplifying polynomial expressions; factoring polynomial expressions; and probability and data analysis. This course is intended for students who wish to cover the standards for Algebra 1 at a typical pace and level of rigor.

**Recommendation:** Teacher recommendation.

### **1227 - Geometry Honors**

**1 credit**

Honors Geometry is for students who have superior ability in math as well as a sincere interest in math and a willingness to work. Honors Geometry will cover the Common Core State Standards that pertain to Geometry and additional geometric concepts to provide a solid foundation for AP math courses. Honors Geometry will cover topics that may include, but are not limited to: Geometric Structure, Congruence and Similarity, Two – and Three – Dimensional Measurement, with an emphasis on formal proofs. Honors Geometry proceeds at a faster pace and tackles more difficult problems to provide the necessary foundation for success in AP math courses.

**Recommendation:** A in Algebra 1 and/or teacher recommendation.

### **1228 - Geometry**

**1 credit**

Geometry will continue to implement the Geometry Common Core Curriculum. Topics may include, but are not limited to: Lines and Angles, Polygons, Circles, Transformations, Pythagorean Theorem, Area, Volume, Congruency, Similarity, and Trigonometry. Algebra 2 and Geometry may be taken simultaneously by sophomores if the student is willing to work very hard and has at least an A in Algebra 1. The Department Chairperson must approve this option. This course is intended for students who wish to cover the standards for Geometry at a typical pace and level of rigor.

**Recommendation:** C in Algebra 1 and teacher recommendation.

### **1237 - Algebra II Honors**

**1 credit**

Honors Algebra 2 is for students who have superior ability in math, as well as a sincere interest in math and a willingness to work. The major topics are: linear equations, inequalities, absolute value, linear functions, linear systems, exponents, polynomials- factoring, radicals, complex numbers, quadratic equations and functions, polynomial functions, rational expressions and equations, using radical exponents. Algebra 2 Honors proceeds at a faster pace and tackles more difficult problems to provide the necessary foundation for success in AP Calculus.

**Recommendation:** B- in Geometry Honors and teacher recommendation.

**1238 - Algebra II****1 credit**

Algebra II will continue to implement the Algebra II Common Core Curriculum. Topics may include, but are not limited to: Linear Systems, Quadratic Functions and equations, Polynomial Functions and equations, Rational Functions and equations, Radical Functions and equations, Exponential and Logarithmic Functions and equations, Trigonometric Functions and equations, and Probability and Statistics. This course is intended for students who wish to cover the standards for Algebra 2 at a typical pace and level of rigor.

**Recommendation:** B- in Algebra 1 and teacher recommendation, C or higher in Geometry, and teacher recommendation.

**1240 - Discrete Math****1 credit**

Discrete Mathematics is designed in a way that promotes active learning, critical thinking, and fully-engaged student participation. Students will see the connections among mathematical topics and real-life events and situations, while sharpening their problem solving, mathematical reasoning, and communication skills. Topics may include but are not limited to Election Theory, Fair Division, Matrix Operations and Applications, Graphs and their Applications, Counting and Probability, and Recursion.

**Recommendation:** Successful completion of Geometry, or teacher recommendation. This course is intended for seniors.

**1258 - College Algebra (EEP option)****1 credit**

This course is designed to provide students an additional year to improve and enhance their skills with algebraic, exponential, logarithmic, and trigonometric functions. Students will also be introduced to quadratic relations including conics. In addition, a more in-depth study of statistical processes is included. Students who satisfactorily complete this course may select Pre-Calculus as a subsequent course of study.

**Recommendation:** Successful completion of Algebra II and teacher recommendation.

**1267 - Financial Algebra Honors (EEP)****1 credit**

*\*\* This is an elective course and does not satisfy the requirement for some colleges that require four math credits. \*\**

Financial Algebra is a college-preparatory mathematics course, aligned to the Common Core Standards, which uses concepts from Algebra I, Algebra II, and Geometry to provide the tools to become a financially responsible young adult and to solve financial problems that occur in everyday life. The course will explore the stock market, starting a business, the various banking services, consumer credit, automobile ownership, employment basics, income taxes, independent living, retirement planning, and preparing a budget. It is a mathematically focused, algebra-based course that is highly applications-oriented.

**Recommendation:** Successful completion of Algebra 2 with teacher recommendation.

**1268 - Financial Algebra****1 credit**

*\*\* This is an elective course and does not satisfy the requirement for some colleges that require four math credits.\*\**

Financial Algebra is a college-preparatory mathematics course, aligned to the Common Core Standards, which uses concepts from Algebra to provide the tools to become a financially responsible young adult and to solve financial problems that occur in everyday life. The course will explore the stock market, starting a business, the various banking services, consumer credit, automobile ownership, employment basics, income taxes, independent living, retirement planning, and preparing a budget. It is a mathematically focused, algebra-based course that is highly applications-oriented.

**Recommendation:** Successful completion of Algebra 1.

**1277 - AP Statistics****1 credit**

AP Statistics will introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes. These themes are Exploring Data: Describing patterns and departures from patterns; Sampling and Experimentation: Planning and conducting a study; Anticipating Patterns: Exploring random phenomena using probability and simulation; Statistical Inference: Estimating population parameters and testing hypotheses. This course may be taken at any time after the completion of Algebra 2 and can be taken as an additional math elective or as a fourth year of math.

**Recommendation:** B in Algebra 2 / Algebra 2 Honors, teacher recommendation, or department chair approval.

**1278 - Probability & Statistics****1 credit**

Statistics is a data driven workshop based course taught using an inquiry approach. Statistic students learn the following major topics: distribution, comparisons, and relationships, collecting data, randomness in data and inferences from data. This course can be taken as an additional math elective or as a fourth year of math.

**Recommendation:** Successful completion of Geometry and Algebra 2.

**1287 - Pre-AP Calculus (Honors)****1 credit**

Honors Pre-Calculus is for those students who have superior ability in mathematics as well as a sincere interest in math and a willingness to work. The main emphasis is in the area of Trigonometry and Analytic Geometry. The course covers topics that may include but are not limited to the nature of graphs, polynomial and rational functions, trigonometric functions, graphs, and trigonometric equations, conic sections, exponential and logarithmic functions. Honors Pre-Calculus proceeds at a faster pace and goes more in depth to provide the necessary foundation for success in AP Calculus.

**Recommendation:** A- in Geometry or B or higher in Honors Geometry A in Algebra 2 and a B- in Algebra 2 Honors and recommendation from Algebra 2 Honors teacher.

**1288 - Pre-Calculus****1 credit**

Pre-Calculus is the study of Trigonometry and Analytic Geometry. The major topics are: linear relations and functions, the trigonometric functions, systems of equations and inequalities, the families of graphs, polynomial and rational functions, graphs and inverses of trigonometric functions, trigonometric identities and equations, logarithmic functions.

**Recommendation:** B- in Geometry and Algebra 2 with a recommendation from the Algebra 2 teacher.

**1297 - AP Calculus BC****2 credits**

Calculus BC is a full-year course in the calculus of functions of a single variable. It includes all topics covered in Calculus AB plus additional topics including: Parametric, Polar, and vector functions, Applications of Integrals, Concept of series, a Series of Constants, and Taylor Series. The content of Calculus BC is designed to qualify the student for placement and credit in a course that is one course beyond that granted for Calculus AB. This course will go at a faster pace and cover each topic in more depth.

**Recommendation:** B+ in Pre-AP Calculus and the recommendation by Pre-Calculus or Pre AP Calculus teacher, recommendation by school counselor, SAT Math score of 600 or higher.

**1298 - AP Calculus AB****1 credit**

AP Calculus students learn the following major topics: review of algebra and geometric analytics, functions, limits, slope and derivative of polynomial functions, powers, products and quotients, implicit relations, composite functions, differentials, continuity, related rate problems, curve analysis, maximum and minimum problems, review of differentiation, derivatives of trig functions, definite integration and application. This course will go at a faster pace and cover each topic in more depth.

**Recommendation:** A- in Pre-Calculus or B+ in Pre-AP Calculus and recommendation by Pre-Calculus or Pre AP Calculus teacher, recommendation by school counselor, SAT Math score of 600 or higher

**1299 - Calculus****1 credit**

Calculus students learn the following topics: limits, slope, derivatives of polynomial functions, powers, products and quotients, implicit relations, composite functions, continuity, related rates problems, curve analysis, maximum and minimum problems.

**Recommendation:** B- in Precalculus, C- in Pre AP-Calculus

<b><u>MODERN WORLD LANGUAGES</u></b>
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**Modern World Language Department Mission Statement**

The Portsmouth High School World Languages Framework affirms the belief that all students should read, write and converse in at least one language in addition to English. The opportunity to learn additional languages will prepare Portsmouth High School graduates to participate in the multilingual, interdependent communities of the twenty-first century.

To relate in a meaningful way to another human being, one must be able to communicate. The study of another language and culture gives the student the power to connect. Effective human interaction is knowing how, when and why to say what to whom. The approach to second language instruction at Portsmouth High School is designed to facilitate genuine interaction with others. Learning more than one language opens doors to new ways of thinking and doing, believing and communicating, and through that process students learn more about themselves. The World Languages discipline is about communicating and making connections.

**Expectations for Student Learning in Modern World Languages:**

All courses offered by the Modern World Languages Department are aligned with the Portsmouth High School's Mission Statement and Expectations for Student Learning. All courses require all students to:

- Access and gather information through research and the use of technology on a variety of reading subjects, write about topics that are level and content appropriate, listen to instructors, peers, recorded audio activities and guest speakers.
- Utilize print, audio and visual materials and human resources to access content and cultural information.
- Use a language other than English to gain awareness, understanding, and appreciation for people and cultures.
- Make comparisons based on an insight into the nature of languages and culture.
- Analyze information critically to interpret literary excerpts and discuss current events.
- Demonstrate evidence of analysis, synthesis and evaluation through the creative process.
- Design, create, and present oral and written projects that demonstrate proper techniques and strategies for effective problem solving.
- Communicate effectively, both independently and cooperatively, to demonstrate an understanding of skills and knowledge acquired.
- Apply skills learned in a variety of authentic settings.
- Demonstrate responsible social behavior in physically active settings.

### **School-wide Learning Expectations Addressed in Modern World Languages:**

Expectation 3: Write proficiently for a variety of purposes.

Expectation 4: Communicate effectively in a variety of formats.

Students must successfully complete the course at the previous level. Students requesting a waiver for a language course, who have previously completed the study of a language, must take a placement test before the selection of a specific course level.

**It is recommended that a college bound student complete three to four years of the same foreign language during high school.**

### **LEVEL I**

**1411 - French I**

**1 credit**

**1431 - Portuguese I**

**1 credit**

**1442 - Spanish I**

**1 credit**

**French I, Portuguese I, and Spanish I** are introductory courses. They are designed for students with little or no previous study of the language. These courses teach basic language patterns and vocabulary. These courses progressively enable the student to: (1) comprehend the language at a conversational speed in subjects within their vocabulary range; (2) read material involving vocabulary and construction studied; (3) write in idiomatic style (everyday expressions about ordinary activities) on subjects within their vocabulary range; (4) speak and interact with proper pronunciation, intonation and inflection on subjects within their vocabulary range; (5) understand cultural perspectives, customs, art and music of the countries where the language is spoken. Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class as well as enable students to participate in a meaningful way. Active participation is required.

## **LEVEL II**

**1412 - French II**

**1 credit**

**1432 - Portuguese II**

**1 credit**

**1443 - Spanish II**

**1 credit**

**French II, Portuguese II, and Spanish II** courses expand upon and reinforce objectives and skills presented in Level I. Emphasis is placed on comprehension (listening and reading), writing and speaking practice in the language using a variety of activities incorporating familiar and new vocabulary and structures. These courses progressively enable the student to: (1) comprehend the language at a conversational speed on subjects within their vocabulary range; (2) read material involving vocabulary and construction studied; (3) write in idiomatic style (everyday expressions about ordinary activities) on subjects within their vocabulary range; (4) speak and interact with proper pronunciation, intonation and inflection on subjects within their vocabulary range; (5) understand cultural perspectives, customs, art and music of the countries where the language is spoken. Continuous effort to use the target language is essential. Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class as well as enable students to participate in a meaningful way. Active participation is required.

**Recommendation:** Successful completion of Level I course or instructor approval upon completion of placement test.

## **LEVEL II HONORS**

**1413 - French II Honors**

**1 credit**

**1433 - Portuguese II Honors**

**1 credit**

**1444 - Spanish II Honors**

**1 credit**

**French II Honors, Portuguese II Honors, and Spanish II Honors** courses rigorously expand upon and reinforce objectives and skills presented in Level I. Deeper emphasis is placed on comprehension (listening and reading), writing and speaking practice in the language using a variety of activities incorporating familiar and new vocabulary and structures. These courses progressively enable the student to: (1) comprehend the language at a conversational speed on subjects within their vocabulary range; (2) read material involving vocabulary and construction studied; (3) write in idiomatic style (everyday expressions about ordinary activities) on subjects within their vocabulary range; (4) speak and interact with proper pronunciation, intonation and inflection on subjects within their vocabulary range; (5) understand cultural perspectives, customs, art and music of the countries where the language is spoken. Continuous effort to use the target language is essential. **In an effort to prepare students for further honors classes and the Advanced Placement Course, it is imperative that students in honors courses exhibit diligence with regard to attitude and work ethic.** Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class as well as enable students to participate in a meaningful way. Active participation is required.

**Recommendation:** Successful completion of Level I course with a B+ or instructor approval upon completion of placement test.

### LEVEL III

**1422 - French III**

**1 credit**

**1434 - Portuguese III**

**1 credit**

**1445 - Spanish III**

**1 credit**

**French III, Portuguese III, and Spanish III** courses expand upon and reinforce objectives and skills presented in Levels I and II. Continued emphasis is placed on comprehension (listening and reading), writing and speaking practice in the language using a variety of activities incorporating familiar and new vocabulary and structures. These courses are designed to: (1) continue development of conversational ability; (2) continue to increase the vocabulary span; (3) improve reading comprehension; (4) develop ability in written composition on the subjects studied; (5) increase knowledge of the culture, literature, art and music of the countries studied. Continuous effort to use the target language is essential. Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class as well as enable students to participate in a meaningful way. Active participation is required.

**Recommendation:** Successful completion of Level II course or instructor approval upon completion of placement test.

### LEVEL III HONORS

**1423 - French III Honors**

**1 credit**

**1435 - Portuguese III Honors**

**1 credit**

**1453 - Spanish III Honors**

**1 credit**

**French III Honors, Portuguese III Honors, and Spanish III Honors** courses rigorously expand upon and reinforce objectives and skills presented in Levels I and II. Deeper emphasis is placed on comprehension (listening and reading), writing and speaking practice in the language using a variety of activities incorporating familiar and new vocabulary and structures. These courses are designed to: (1) continue development of conversational ability; (2) continue to increase the vocabulary span; (3) improve reading comprehension; (4) develop ability in written composition on the subjects studied; (5) increase knowledge of the culture, literature, art and music of the countries studied. Continuous effort to use the target language is essential. **In an effort to prepare students for further honor classes and the Advanced Placement Course, it is imperative that students in honors courses exhibit diligence with regard to attitude and work ethic.** Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class as well as enable students to participate in a meaningful way. Active participation is required.

**Recommendation:** Successful completion of Level II or II Honors course with a B+ or instructor approval upon completion of placement test.

### LEVEL IV

**1424 - French IV**

**1 credit**

**1437 - Portuguese IV**

**1 credit**

**1454 - Spanish IV**

**1 credit**

**French IV, Portuguese IV, and Spanish IV** courses expand upon and reinforce objectives and skills presented in Levels I, II and III. Continued emphasis is placed on comprehension (listening and reading), writing and speaking practice in the language using a variety of activities incorporating familiar and new vocabulary and structures. It is designed to (1) practice and refine speaking ability with an emphasis on conversational skills; (2) teach, practice and refine more advanced grammar skills; (3) expose students to literary texts in the target language; (4) further improve reading comprehension and writing skills; (5) further increase knowledge of the culture of the countries where the language is

spoken through readings and discussion. Continuous effort to use the target language is essential. Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class, which enable students to participate in a meaningful way. Active participation is required.

**Recommendation:** Successful completion of Level III course or instructor approval upon completion of placement test.

#### **LEVEL IV HONORS**

**1425 - French IV Honors** **1 credit**

**1436 - Portuguese IV Honors** **1 credit**

**1456 - Spanish IV Honors** **1 credit**

**French IV Honors, Portuguese IV Honors, and Spanish IV Honors** courses expand upon and reinforce objectives and skills presented in Levels I, II and III in order to prepare for Advanced Placement courses offered. Students will be introduced to tasks that are on the AP exam. The course is taught in the target language and focuses on the development of more complex communication skills. Continued emphasis is placed on comprehension (listening and reading), writing and speaking practice in the language using a variety of activities incorporating familiar and new vocabulary and structures. Students will further develop the interpretive, presentational and interpersonal modes of communication through reading and listening selections, oral presentations, and various written genres. Continuous effort to use the target language is essential. **In an effort to prepare students for Advanced Placement Courses and/or National Exams, it is imperative that students in honors courses exhibit diligence with regard to attitude and work ethic.** Homework assignments are an integral part of these courses; they reinforce concepts/skills introduced and explored in class as well as enable students to participate in a meaningful way. Active participation is required.

**Recommendation:** Successful completion of Level III or III Honors course with a B+ or instructor approval upon completion of placement test.

**1426 - French Culture Through Film** **.5 credit**

This course will be taught in English and the films will be shown in French with English subtitles. Students will have glimpses into French culture through a historical perspective. The movies are shown in the order of historical periods that they illustrate. Other films depict contemporary problems or analyses and exploration of social and political topics. Through the analysis of classic and recent francophone movies (with English subtitles) students acquire the tools to appreciate films as works of art and to look objectively upon political, social and psychological conditions different from their own.

Students will:

- a. Acquire and apply knowledge of film terminology necessary to critique movies.
- b. Describe and analyze diverse aspects of culture through viewing films that illustrate important periods in French history.
- c. Examine and analyze, through film, how people react under certain political, cultural, religious and social circumstances.
- d. Evaluate culture in a global context through the analysis of universal themes such as friendship, betrayal, hatred, hypocrisy, faith, life in poverty, artistic creativity, jealousy, false identity, forbidden love, arranged marriage, political ambition, revolution and racism.



- e. Participate in group discussions, do an oral presentation about a character or aspect of a French film that they enjoyed, write essays and a film review and create a film poster.

**Recommendation:** 11th and 12th grade students will be given preference.

### **1455 - AP Spanish**

**1 credit**

AP Spanish Language and Culture is a rigorous course taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication. The course focuses on the integration of authentic resources including online print, audio, and audiovisual resources; as well as traditional print resources that include literature, essays, and magazine and newspaper articles; and also a combination of visual/print resources such as charts, tables, and graphs; all with the goal of providing a diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level. The emphasis is on communication. Therefore, grammatical accuracy is not the focus or priority. Central to communication is the following premise from the Curriculum Framework: When communicating, students in the AP Spanish Language and Culture course demonstrate an understanding of the culture(s), incorporate interdisciplinary topics (Connections), make comparisons between the native language and the target language and between cultures (Comparisons), and use the target language in real-life settings (Communities).

**Recommendation:** A minimum grade of B+ in Levels IV or V courses or a recommendation from the teacher. \*A summer reading list is provided to build students' knowledge of vocabulary and review grammatical structure.

### **1458 - Spanish V**

**1 credit**

The Spanish V course seeks to enhance students' proficiency in the language. The course is taught predominantly in the target language. Range of vocabulary will continue to increase and grammatical emphasis will be on an "as needed" basis. A variety of learning activities will be utilized in order to develop and fine-tune students' skills of listening, speaking, reading, and writing. This course also enables students to use previously mastered material on a daily basis as they read and speak about a variety of topics and literature. Students must participate in class using the target language.

**Recommendation:** Successful completion of Level IV course or instructor approval upon completion of placement test.

## **SCIENCE**

### **Science Department Mission Statement**

The mission of the Portsmouth Science Curriculum is to prepare all students to be scientifically literate, enabling them to meet the challenges of a rapidly expanding body of knowledge within a changing, increasingly technological, and complex global society. The Science Department is committed to a hands-on, inquiry approach for the science education of all of our students at Portsmouth High School.

All students are required to take three successful years of science to complete graduation requirements. In line with the Next Generation Science Standards (NGSS), it is strongly recommended that each student select courses to cover the four science disciplines of earth science, biology, chemistry and physics. Knowledge and skills in all four areas is the best preparation for a responsible citizen of the world in the decades ahead.

Recommendations are indicated to assist students and parents in making course selections. All courses are designed to prepare students for post-secondary education. All honors and Advanced Placement courses demand a high level of skill, motivation and time commitment on the part of the student.

### **Expectations for Student Learning in Science:**

The Science Department focuses on developing the following inquiry skills:

- Asking Questions and Defining Problems
- Planning Investigations
- Carrying Out Investigations
- Analyzing and Interpreting Data
- Constructing Explanations and Designing Solutions

### **School-wide Learning Expectations Addressed in Science:**

Expectation 1. Access and critically analyze information to answer questions and explore ideas

Expectation 2. Utilize effective problem solving strategies

### **1311 - Principles of Earth, Space, and Physics**

**1 credit**

This is an introductory course that explores earth and space science as well as physics principles. This course is designed to meet the next generation science standards (NGSS) in physical science as well as earth and space science. This course introduces students to earth and space systems as well as physical concepts of motion, forces, energy, electromagnetism and waves. This is an inquiry-based, hands-on course that incorporates the three dimensions of the NGSS: the disciplinary core ideas, practices and cross-cutting concepts. Algebra 1 concepts and engineering practices are incorporated into this course. A long-term science fair project is required for this class.

**Recommendation:** Successful completion of grade 8 science.

### **1312 - Principles of Earth, Space, and Physics Honors**

**1 credit**

This is a rigorous introductory course that explores earth and space science as well as physics principles. This course is designed to meet the next generation science standards (NGSS) in physical science as well as earth and space science. This course introduces students to earth and space systems as well as physical concepts of motion, forces, energy, electromagnetism and waves. This is an inquiry-based, hands-on course that incorporates the three dimensions of the NGSS: the disciplinary core ideas, practices and cross-cutting concepts. Engineering practices are incorporated into this course. A long-term science fair project is required for this class. A student needs to be self-motivated and have a strong background in mathematics to be successful in this course.

**Recommendation:** A grade of A in grade 8 science and concurrent enrollment in Geometry.

### **1322 - Biology**

**1 credit**

This is an introductory course for juniors who have completed Principles of Earth, Space and Physics as well as Chemistry. This course is an inquiry-based exploration of the many concepts in life science. The course is designed to meet the Next Generation Science Standards in Life Science as well as some earth and space science. This hands-on course incorporates the three dimensions of the NGSS: the disciplinary core ideas, practices and cross-cutting concepts. Topics to be covered include traditional areas such as ecology, the cell, biochemical processes, genetics and evolution, as well as recent and relevant advances in the field. Engineering practices are incorporated into this course. Students will meet school wide expectations for learning by participating in hands-on labs, working in individual and cooperative

learning situations, and completing both traditional and performance-based assessments throughout the year.

**Recommendation:** Successful completion of Chemistry.

### **1324 - Human Anatomy & Physiology Honors**

**1 credit**

This is a rigorous, second-level biology course designed for students with a keen interest in the structure and functioning of the human body or those planning to pursue a career in health care or a related biological field. A strong background in biology is essential. This program engages the student in the vocabulary of human anatomy and the functioning of the human body, utilizing inquiry based biological lab techniques, some independent project work, memorization and dissection. A college level textbook is used.

**Recommendation:** A grade of B or better in Chemistry/Biology or recommendation of the Chemistry/Biology teacher. May take concurrently with Biology.

### **1325 - AP Biology**

**2 credits**

The AP Biology course meets daily and is designed to be the equivalent of a two-semester college introductory biology course usually taken by biology majors during their first year of college. AP Biology will include those topics regularly covered in a college biology course for majors. The course is designed to meet the Next Generation Science Standards in Life Science. It is a demanding and rigorous course for students interested in pursuing an intensive science education. The course centers on the AP College Board's 4 Big Ideas: (1) The process of evolution drives the diversity and unity of life (2) Biological systems utilize free energy and molecular building blocks to grow, reproduce, and to maintain dynamic homeostasis (3) Living systems store, retrieve, transmit, and respond to information essential to life processes (4) Biological systems interact, and these systems and their interactions possess complex properties. The student will also gain an understanding of the basic principles of biology through laboratory investigations and scientific practices. The student is expected to have a solid working knowledge of introductory physics and chemistry.

**Recommendation:** Successful completion of Pre-AP Chemistry or A in Chemistry or by teacher's recommendation.

### **1332 - Chemistry**

**1 credit**

This is an introductory course designed for sophomores who have completed Principles of Earth, Space and Physics. This course explores chemistry concepts, cooperative learning endeavors, cognitive skills, and laboratory skills. This course is designed to meet the Next Generation Science Standards in Physical Science related to chemistry and earth and space science. Topics include atomic theory, periodic properties of elements, nuclear chemistry, electron structures of elements, chemical bonding and reactions, and thermochemistry. Students will have the option to participate in a long-term science fair project. This is an inquiry-based, hands-on course that incorporates the three dimensions of the NGSS: the disciplinary core ideas, practices and cross-cutting concepts. Engineering practices are incorporated into this course. Students will need a strong background in Algebra 1.

**Recommendation:** Successful completion of Principles of Earth, Space and Physics.

### **1333 - Chemistry (Pre-AP)**

**1 credit**

Although this is an introductory chemistry course, this course is designed to prepare a motivated student to develop a strong science background for Advanced Placement Chemistry. The course is designed to meet the Next Generation Science Standards in Physical Science related to Chemistry and some earth and space science. The course covers traditional chemistry topics such as atomic theory, periodic properties of elements, nuclear chemistry, gas laws, electron structures of elements, chemical bonding and reactions, stoichiometry, the mole concept, and thermochemistry, but does so at a greater depth than Chemistry. Additionally, the course centers on the AP College Board's 6 Big Ideas in Chemistry. This course utilizes an AP approved textbook which has challenging reading and mathematics levels. This will enable diligent students to gain a very strong background in Chemistry. Strong math and problem solving skills are essential for student success. Students will have the option to participate in a long-term science fair project. This course is hands-on and inquiry-based incorporating engineering standards. A student needs to be self-motivated to be successful in this course.

**Recommendation:** A grade of A in Principles of Earth, Space and Physics or a grade of B in Principles of Earth, Space and Physics (Honors).

### **1336 - AP Chemistry**

**1 credit**

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken the first year of college. This course is a continuation of the Chemistry Pre-AP course. The course is designed to meet the Next Generation Science Standards in Physical Science related to Chemistry and covers more in depth topics such as kinetics, equilibrium, acid base theory, thermodynamics, organic and electrochemistry. Additionally, the course centers on the AP College Board's 6 Big Ideas in Chemistry. Students will attain a deeper understanding of chemistry concepts and will achieve competence in dealing with chemical calculations. Engineering practices are incorporated into this course. The nature of the inquiry based, hands-on activities as well as the variety of the lab experiences will ensure a very strong background in laboratory techniques and skills that are required for success on the AP Chemistry exam. Strong math and problem solving skills are essential.

**Recommendation:** A grade of B in Chemistry Pre-AP or an A in Chemistry along with a strong math background or by teacher's recommendation.

### **1341 - Physics**

**1 credit**

This is an inquiry-based course in which the student will be guided toward a better understanding of the physical world and some of the basic laws of the universe. Topics include motion (Linear and mathematics is the language by which these principles are studied, the student will require a strong two-dimensional), Newton's Laws, momentum, energy, waves, optics, electricity and magnetism. Since background in mathematics including basic trigonometry. Most, but not all, concepts can be understood with a mastery of Algebra II. Physics is for students who like to be challenged. This course is technology intensive and requires regular internet access outside of class. May be used to fulfill math graduation requirements if taken as a fourth year of science.

**Recommendation:** Students should have completed an advanced math course or be concurrently enrolled in Pre-Calculus.

### **1347 - AP C Physics**

**2 credits**

The AP Physics C course meets daily and is designed to be equivalent to the two-semester introductory physics course for physical science and engineering majors usually offered during the first year of college. It is a demanding and challenging calculus-based course for capable students eager to pursue an

intensive science education. Concurrent enrollment in AP Calculus is required. The major goals of the course center around the student gaining an understanding of the basic principles of physics and the student acquiring the ability to apply these principles in laboratory experiences and in the solution of problems. This class meets every day for the entire school year. May be used to fulfill math graduation requirements if taken as a fourth year of science.

**Part 1 - AP Physics C: Mechanics** (linear and two-dimensional motion; Newton's Laws; linear momentum; work and energy; center of mass, torque, rotational motion, and angular momentum; and oscillations and gravitation)

**Part 2 - AP Physics C: Electricity and Magnetism** (electrostatics, including Gauss's Law, capacitance, electric circuits, including RC, LR, and LC circuits, magnetism, electromagnetic induction, and Maxwell's equations).

**Recommendation:** Concurrent enrollment in AP Calculus and the recommendation of this year's science teacher.

### **1348 - AP Physics 1**

**1 credit**

The AP Physics 1 course is designed to be equivalent to a first-semester college course in algebra-based physics. It is recommended for students who may major in the life sciences or for those who are non-science majors hoping to attend a competitive college. It is a demanding and challenging course for capable students eager to pursue an intensive science education. The course centers on the AP College Board's 6 Big Ideas in Physics. Topics include: Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. The major goals of the course center on the student gaining an understanding of the basic principles of physics and acquiring the ability to apply these principles in laboratory experiences and in the solution of problems. The student is expected to have a solid, working knowledge of Algebra II and Trigonometry and should be currently enrolled in Calculus. May be used to fulfill math graduation requirements if taken as a fourth year of science.

**Recommendation:** Concurrent enrollment in AP Calculus and the recommendation of this year's science teacher.

### **1351 - Renewable Energy (Offered Even Years)**

**1 credit**

This course will introduce the student to the general understanding of energy choices, from current fossil fuel sources of coal, oil, and gas, to leading renewable energies such as wind, solar, and biofuel. Students will explore the technology, benefits and feasibility of these various forms of renewable energy and will complete cost/benefit analyses of different types of renewable energy compared to fossil fuel energy. Projects include building and measuring the efficiency of wind turbines, solar panels and biofuels.

**Recommendation:** This course is open to all juniors and seniors.

### **1355 - Space & Ocean Science (Offered Odd Years)**

**1 credit**

This course is a broad overview of astronomy, planetary science, the Earth's evolution, and its oceans. Astronomy is the study of everything that fills the empty space in the Universe - stars, planets, comets, asteroids, high-energy particles, electromagnetic radiation, and mysterious things like black holes, dark matter and dark energy. After learning about the larger universe that surrounds our planet, a closer look at the Earth is taken through the study of its oceans. Oceanography involves the study of all aspects of the ocean; its evolution and origins, its chemistry, and all the life and the ecosystems within it. Students will explore multiple ocean phenomena including: plate tectonics on the seafloor, tides, currents, wind

patterns, life in the oceans, and the ocean's influence on weather and climate. Each unit in this course will include investigations using real data from the field.

**Recommendation:** Completion of Principles of Earth, Space and Physics.

### **1359 - Environmental Science**

**1 credit**

Environmental science blends the study of nature with exciting research that focuses on the realities of living in modern communities while still promoting personal responsibility for the health of the environment. In this course students will develop a thorough understanding of the main environmental issues confronting our world today while learning what it means to live green without sacrificing their lifestyles. Building on the scientific principles introduced in earlier course work, students will explore topics such as animal behavior, public health, biodiversity, urban land use, energy and climate change, garbage management, sustainable development, environmental law, ecosystem analysis, resource management and the politics and ethics of the environment and society. Students will have multiple opportunities for research on how to improve their own communities through scientific investigations and action planning. Field trips, current issue analysis, field work and lab work will supplement traditional instructional methods. Although this is a science course, an interdisciplinary and personal approach to environmental problem solving will be highlighted.

**Recommendation:** Completion of any Biology class or by teacher recommendation.

### **1360 - AP Environmental Science**

**1 credit**

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. The following themes provide a foundation for the structure of the AP environmental course: science is a process, energy conversions underlie all ecological processes, the Earth itself in one interconnected system, humans alter natural systems, environmental problems have a cultural and social context and human survival depends on developing practices that will achieve sustainable systems.

**Recommendation:** Successful completion of any Biology class.

## **SOCIAL STUDIES**

### **Social Studies Department Mission Statement**

The Portsmouth High Social Studies Department is committed to provide all students with diverse knowledge and skills in order to be prepared for college, career and civic life. Students' inquiry based, authentic experiences with history, American democracy, and cultures around the world, will provide an invaluable foundation as they become active citizens and compete in a global economy. Our courses place emphasis on proficiency in information literacy. Critical thinkers and problem solvers must be able to efficiently locate, accurately evaluate, effectively use, and clearly communicate information in a variety of formats. In a world whose issues are complex and economies everchanging, we prepare our students to intelligently analyze and act upon complex local and global issues, and the ability to adapt and learn new skills to successfully traverse college and career.

## **Expectations for Student Learning in Social Studies**

- To develop questions, identify problems and plan inquiries
- Apply disciplinary concepts and tools
- Critically think and collaborate
- Evaluate sources and use evidence
- Communicate conclusions and take informed action

## **School-wide Learning Expectations Addressed in Social Studies:**

Expectation 1: Access and critically analyze information to answer questions and explore ideas.

Expectation 3: Write proficiently for a variety of purposes.

### **THE PATHWAY FOR CRIMINAL JUSTICE**

Portsmouth High School's Pathway for Criminal Justice provides a sequence of aligned courses and learning experiences that will deepen students' understanding of the American criminal justice system. This locally approved program will provide students the opportunity to earn a Pathway Endorsement upon graduation. This designation certifies that the individual has accomplished a deep understanding of criminal justice and is better prepared to begin entry level security positions or further their education in the fields of policing, security, corrections and the law.

In order to fulfill the requirements for the pathway program, students must complete the following courses with a B or better.

### **Course Sequence:**

1. Criminal Justice
2. Social Justice Issues in Criminal Justice
3. Students Choice: AP Psychology or AP US Government and Politics

## **1120 - Civics**

**Grade 9 ♦ 1 credit**

Civics is a comprehensive overview of the foundations and functions of American government, the role of the legislative body and how it operates, and our personal obligations as citizens and Americans. Students are expected to have a firm grasp of how and why our democracy works. This will be done through a variety of assignments, speakers, and interactive projects. It is the obligation of every student to fully grasp the duty and responsibilities of being an American citizen.

## **1130 - AP European History**

**1 credit**

AP European History is an introductory college-level European history course. Students cultivate their understanding of European history through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like interaction of Europe and the world; economic and commercial developments; cultural and intellectual developments; states and other institutions of power; social organization and development; national and European identity; and technological and scientific innovation.

## **1135 - United States History II**

**1 credit**

United States History II is an extension of US History I. Students continue their study of United States history of the 20th and 21st centuries. Students learn about the economic history of the Great

Depression, New Deal, World War II, and the Cold War, concluding with an examination of domestic and global policies and politics in the 21st century. Students explore guiding questions such as: *“How has the United States Government responded to economic crises?”*, *“What are the sources of political and cultural differences in the modern United States?”* and *“What kind of role should the U.S. play in world Affairs?”* The course is designed to stimulate inquiry, analyze credible sources, argue or explain conclusions and determine next steps.

### **1137 - AP United States History**

**1 credit**

AP U.S. History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students will learn to assess historical materials, and to weigh the evidence and interpretations presented in historical scholarship.

### **SOCIAL STUDIES ELECTIVES:**

#### **1142 - Criminal Justice**

**1 credit**

Criminal Justice examines the American criminal justice system through the exploration of policing, court systems and corrections. The overarching theme, the balance of individual rights versus public order, will guide our inquiry. The primary goal of this course is to develop a general understanding of the criminal justice system and its response to crime. When possible, field trips to the courts and prison will provide opportunities to see first hand how our system works in Rhode Island. Guest speakers as well as practitioners such as police officers, lawyers and judges will provide the opportunity to explore even deeper. This course is an excellent choice for students interested in pursuing a career in law, policing, corrections, or as a security guard.

#### **1145 - Social Justice Issues in Criminal Justice**

**1 credit**

Social Justice Issues in Criminal Justice is the second course in the pathway for Criminal Justice. Students will begin with a look at foundational documents that set up the principle of all humans being created equal and then analyze legislation that defines the concept of “all” in our country. Students will examine the three components of the criminal justice system (police, courts and correction facilities) and learn how diverse groups within the population are treated within the realm of these components. Topics include an introduction to basic human rights, incarceration, voting, education, and Civil Rights legislation through global and local perspectives. Critical reading, academic research, writing, and discussions will anchor this course and students will work with professional mentors in the field of criminal justice as they initiate, create and showcase their learning. Through our inquiry into each issue, students will see how each topic impacts the world at large. This will be a project-based course where students will focus each quarter on a different skill with which to be assessed. Students will both learn together as well as take an individual inquiry into their own chosen topics within the issue. Projects will include poster/presentation, formal, written paper, discussion (Socratic Seminars), and a TED talk (15-minute presentation)

**Recommendation:** Criminal Justice or teacher recommendation.



**1150 - Anthropology****1 credit**

This course focuses on the origins of mankind in both a physical and cultural context. Students taking this course will follow the progression of human development from the emergence of primitive man to the divergence of the various cultures that now exist. During this process, the major themes investigated will include evolution, primate history and diversity, archeology, social norms and stratifications, language, religion, magic, and an in-depth look at culture and its psychology. Students will gain an insight into primitive man through the study of our closest ancestors, the primitive apes and gain an understanding of our own behavior through those correlations.

**1159 - Personal Psychology (*Offered Odd Years*)****.5 credit**

This course focuses on how to live your best life. Students will identify their personality type by completing a standardized self-assessment. We will then examine how the results of these tests predict one's path in the world. The interactive curriculum will include the following: theories of personality, physical and psychological effects of stress, people's coping styles, social influences on our behaviors, interpersonal relationships, gender and behavior, psychological disorders and psychotherapy. Case studies, guest speakers and discovery learning will guide our work together.

**1165 - AP Psychology****1 credit**

This course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped this field AP course in Psychology is to introduce the systematic and scientific study of the behavior and mental processes of human beings and other animals. Included is a consideration of the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice.

**1169 - Economics (EEP) (*Offered Even Years*)****.5 credit**

The study of economics provides students with a working knowledge of competition, supply and demand, the price system, and economic incentive. Other topics such as unemployment, the business cycle, inflation, and economic growth are covered, as well as the role of business, labor and government in the American economy. The concepts of trade-offs and opportunity costs will be thoroughly examined. In brief, this course enables students to become better decision-makers. An extensive unit on personal finance and investing begins our course. Financial literacy is the main focus of this unit. Group investment simulation projects are used to reinforce investing concepts. A Certified Financial Planner will present a seminar to the class upon completion of our unit. Note: This course may be taken for college credit from RIC.

**1173 - AP U.S. Government and Politics****1 credit**

The course is designed to teach students about how people behave politically, and about the design of the American political system. The major purpose of this course is to help students gain and display an understanding of American politics, and the processes of government that help shape our public policies.

These ideas include but are not limited to:

- **Constitutionalism (CON)** The U.S. Constitution establishes a system of checks and balances among the branches of government and allocates power between federal and state governments.
- **Liberty and Order (LOR)** Governmental laws and policies balancing order and liberty are based on the U.S. Constitution and have been interpreted differently over time.
- **Civic Participation in a Representative Democracy (PRD)** Popular sovereignty, individualism, and republicanism are important considerations of U.S. laws and policy making and assume citizens will engage and participate.

- **Competing Policy-Making Interests (PMI)** Multiple actors and institutions interact to produce and implement possible policies.
- **Methods of Political Analysis (MPA)** Using various types of analyses, political scientists measure how U.S. political behavior, attitudes, ideologies, and institutions are shaped by a number of factors over time.

## **CAREER AND TECHNICAL EDUCATION (CTE) PROGRAMS**

Portsmouth High School is offering four Rhode Island Department of Education Career and Technical Education (CTE) programs:

- The Academy for Education, Child Development, and Human Services
- The Academy for Media Communications and Digital Video Production
- The Academy for Engineering Design
- The Academy for Visual Arts and Design

Descriptions of the academies are provided below. Any student enrolled in Portsmouth High School is eligible to take the courses that are listed in the CTE Academies; however, preference for available seats will be given to students who have submitted an application and they have been accepted into the program.

### **THE ACADEMY FOR VISUAL ARTS AND DESIGN**

The descriptions and course outline for [The Academy for Visual Arts and Design](#) is located in the Fine Arts - Art section. Click on the link above to view detailed information.

### **THE ACADEMY FOR EDUCATION, CHILD DEVELOPMENT & HUMAN SERVICES**

Portsmouth High School's Academy of Education, Child Development, and Human Services is aligned to academic, technical, and industry-based standards to ensure a rigorous state approved three-year career and technical education (CTE) pathway. During the second and third year of the program, the students who are enrolled in the program will experience a variety of internships where they will work directly with children at local childcare centers and elementary schools. Students who complete the second level course will earn a certificate issued by the Rhode Island Department of Education that documents that they have successfully completed the training, Foundations for the Rhode Island Early Learning and Development Standards. A RIDE approved Teacher Assistant Training Program is incorporated into the third level course. After the students successfully complete the program, they will be eligible to register for the ParaPro Assessment. A passing score on the assessment will provide the students with the opportunity to work as a teacher's assistant in a variety of school settings. This academy provides an introduction to the field of pediatrics and the foundation for careers in education and the field of human services and family studies.

#### **COURSE SEQUENCE:**

- Child Studies 1-Child Growth and Development
- Child Studies 2-Principles and Practices of Early Childhood Education
- Child Studies 3-Principles and Practices of Education and Training

**Students who are enrolled in the CTE academy will receive preferred status when registering for CTE courses.**

### **Mission Statement**

This CTE program focuses on the growth and the development of children as it pertains to preparing students to be prepared to enter a teacher preparation program at the postsecondary level and to be “job ready” as a teacher assistant or childcare employee.

### **Expectations for Student Learning in the Academy for Education, Child Development and Human Services**

The courses are aligned with Portsmouth High School’s Core Values and Beliefs and all of the 21<sup>st</sup> Century Learning Expectations.

### **School-wide Learning Expectations Addressed in the Academy for Education, Child Development and Human Services:**

Expectation 1: Access and critically analyze information to answer questions and explore ideas

Expectation 6: Engage in work with integrity, both independently and collaboratively

### **1750 - Child Studies 1-Child Growth and Development (CTE) .5 credit**

This course examines child growth and development from prenatal development through the preschool years. The curriculum will include the following topics: genetics, analyzing the influence of heredity and environmental factors on prenatal development, and the stages of childbirth. The course will also analyze effective approaches to promoting the physical, cognitive, social and emotional growth of infants, toddlers, and preschool age children. This course is an excellent choice for those students who are considering a career in obstetrics, pediatrics, or the field of human development and family studies. Guest speakers and field trips will be incorporated into the curriculum.

### **1751 - Child Studies 2-Principles & Practices of Early Childhood Education (CTE) 1 credit**

Students in this course will participate in the first level of training that is offered in conjunction with the Rhode Island Department of Education. The training will provide a comprehensive overview of the nine domains of learning and development within the Rhode Island Early Learning and Development Standards and the importance of each domain to the growth of children from birth to age five. Upon the successful completion of the training, the student will be presented with a certificate issued by the Rhode Island Department of Education that documents that the student has successfully completed the course, Foundations for the Rhode Island Early Learning and Development Standards (RIELDS). Other areas of study will include an analysis of early childhood theorists, curriculum development, the role of the family in a child’s development, and careers in early childhood. An integral part of this course will be the unique opportunity for students to be able to apply what they have learned in the classroom during a practicum where they will work directly with children and a mentor teacher once a week at Countryside Children’s Center or Hathaway Elementary School. This course is an excellent choice for those students planning a career in the field of early childhood.

**Recommendation:** Child Growth and Development with a minimum grade of a B

### **1752 - Child Studies 3-Principles & Practices of Education and Training (CTE) 1 credit**

This course provides a comprehensive overview of the development of children from early childhood through secondary education. After the successful completion of the Child Studies Pathway, the student will be prepared to complete the Rhode Island State Paraprofessional/Teacher Assistant exam which will allow him or her to work as a teacher assistant in a variety of school settings. The students will work directly with children one or two days a week at a local childcare center and/or elementary school. *This*

*course is an excellent choice for those students planning a career in early childhood, elementary, and secondary education.*

**Recommendation:** Child Growth and Development and Principles and Practices of Early Childhood Education with a minimum grade of a B. Students are required to obtain the Foundations of the RIELDS certificate before enrolling in this course.

### **THE ACADEMY FOR MEDIA, COMMUNICATIONS, & DIGITAL VIDEO PRODUCTION**

The Academy for Media, Communications, and Digital Video Production at Portsmouth High School is a Rhode Island Department of Education certified Career and Technical Education program (CTE). The Academy is a unique program that delivers specialized communication and video skills through a multi-year sequence of course offerings. In the program's first year, the students learn foundational skills which are then utilized in the two main pathways of the Academy. The first pathway is Media Communications, which primarily focuses upon writing, directing, and producing video journalism, news broadcasts, and short documentary films. The second pathway is Digital Video Production, which principally focuses upon writing, directing, and editing short narrative films. The Academy is proud to offer students an opportunity to work with industry standard film equipment. Upon successful completion of the program, students will be eligible to earn five college credits at New England Institute of Technology.

#### **COURSE SEQUENCE:**

- Digital Video Production I
- Digital Video Production II or Video Journalism/Broadcasting
- Digital Video/Adobe Premiere Pro Certification: may be taken concurrently with Digital Video III
- Digital Video Production III

**Students who are enrolled in the CTE academy will receive preferred status when registering for CTE courses.**

#### **1668 - Digital Video Production I (CTE)**

**.5 credit**

This course is designed for the entry-level student who has an appreciation for film and video and would like to further explore the subject. Students will learn the principles of design in relation to frame composition and also learn essential camera techniques. Projects include documentary, stop-motion, journalism, continuity, and music video. Digital cameras and non-linear editing software will be utilized in this course. This course may be used to fulfill the technology graduation requirement.

#### **1669 - Digital Video Production II (CTE)**

**1 credit**

This course is designed for the more advanced digital video student who desires to develop more skills and experience in the field. This intensive course will require many hours outside of class dedicated to various projects. Projects will include adapted scenes, original videos, and documentaries as well as journalism. Students will be introduced to advanced editing using the Adobe Creative Cloud and camera techniques, as well as film theory and film analysis. There is a major written component to this course in addition to the video projects. The primary editing software will be Adobe's Premiere Pro, which is an industry standard.

**Recommendation:** Completion of Digital Video 1 with a minimum grade of B, and teacher recommendation.

### **1671 - Digital Video Production III (CTE)**

**1 credit**

This course is for the advanced digital video student who is interested in pursuing this discipline at the college level or entering the professional field. Advanced camera techniques and editing techniques will be utilized and students will be working independently to develop their own unique voice and style. Students will be expected to enter their work in local/state/national film competitions and festivals. Students will master advanced editing and camera techniques. There is a major written component to this course in addition to the video projects, where film theory and film analysis will be used. The primary editing software will be Adobe's Premiere Pro, which is an industry standard. Students will have the opportunity to take the Adobe Premiere Pro certification exam. College credit is awarded to students by New England Institute of Technology upon successful completion of this course.

**Recommendation:** Completion of Digital Video Production II or Video Journalism/Broadcasting with a minimum grade of B, and teacher recommendation.

### **1672 - Video Journalism/Broadcasting (CTE)**

**1 credit**

This course will be dedicated to examining and reporting on various aspects of the culture of PHS including clubs, activities, sports, and any notable current events that are occurring within the PHS school community. With an emphasis on journalistic techniques, students will learn to write, produce, direct, and edit as well as perform in front of the camera as talent for a regular broadcasting episode. In addition to news broadcasts, students will create commercial content, and other creative short programming. This dynamic class is high-energy and requires hands-on participation, requiring additional lab time and a significant after-school commitment.

**Recommendation:** Completion of Digital Video I with a minimum grade of B, and teacher recommendation. Students who successfully complete this course may enroll in Digital Video Production III.

### **THE ACADEMY FOR ENGINEERING DESIGN**

Portsmouth High School's Academy for Engineering Design provides students with the opportunity for hands-on learning through the Project Lead the Way (PLTW) series of courses. The program includes two foundational courses: Introduction to Engineering Design and Principles of Engineering. It also includes several optional/specialized courses that provide students with instruction in specific fields of engineering. The program will culminate with a capstone project course Engineering Design and Development that the students will take during their senior year.

Students who enroll in these courses will be exposed to the engineering design process as well as engineering strategies, methods, calculations, and visual representation of design that are used in various engineering fields. The courses and activities are designed to challenge students with a wide variety of hands-on labs and projects where they will apply the strategies that they have learned to solve problems. This exposure prepares students for future careers in engineering or for the next level of education in the engineering field.

### **PLTW COURSES:**

- Engineering Essentials
- Introduction to Engineering Design
- Principles of Engineering
- Engineering Design and Development
- Digital Electronics
- Civil Engineering and Architecture

**Students who are enrolled in the CTE academy will receive preferred status when registering for CTE courses.**

### **Mission Statement**

The PLTW Engineering Design program is designed to provide students who are interested in pursuing a career in engineering the foundational skills necessary to be prepared to enter an engineering program at the post-secondary level.

### **School-wide Learning Expectations Addressed in Engineering CTE Program:**

Expectation 1: Access and critically analyze information to answer questions and explore ideas

Expectation 2: Utilize effective problem solving strategies

### **1379 - Engineering Essentials - PLTW (CTE 1)**

**1 credit**

The first course in the PLTW engineering curriculum, Engineering Essentials, offers a multidisciplinary approach to teaching and learning foundational concepts of engineering practice, providing students opportunities to explore the breath of engineering career opportunities, and experiences, and solve engaging and challenging real-world problems through engineering essentials.

**Recommendation:** This course is open to all students and it may be used to fulfill the technology graduation requirement.

### **1380 - Introduction to Engineering Design - PLTW (CTE 2)**

**1 credit**

This PLTW engineering course is an inquiry based, project centered course where students will be introduced to the design process, applying math, science and engineering standards to hands-on projects. Students work both individually and in teams to design solutions to a variety of problems using 3D modeling software and utilize strategies used by engineers in industry and in the field. This is an introduction to engineering design through a process which will open students' minds about how to approach scientific and engineering problems.

**Recommendation:** This course is open to all students and it may be used to fulfill the technology graduation requirement.

### **1381 - Principles of Engineering Honors - PLTW (CTE 3)**

**1 credit**

This Project Lead the Way (PTLW) course is project based. Students engage and challenge themselves with problem solving related to specific disciplines of engineering. Students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

**Recommendation:** The completion of Introduction to Engineering Design and Principles of Earth, Space, and Physics with a B or better and successful completion of Geometry.

**1382 - Engineering Design & Development - PLTW (CTE)****1 credit**

The knowledge and skills students acquire throughout the PLTW engineering program come together in Engineering Design and Development. Students will identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing Engineering Design and Development ready to take on any post-secondary program or career.

**Recommendation:** Open to seniors who have completed at least 2 PLTW CTE courses.

**1390 - Digital Electronics - PLTW (CTE)****1 credit**

From smartphones to appliances, digital circuits are all around us. This PLTW course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

**Recommendation:** This course is open to sophomores, juniors and seniors.

**1391 - Civil Engineering & Architecture Honors - PLTW (CTE)****1 credit**

Students will learn the fundamentals of building and site design and development. In this PLTW course, they will apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3-D architectural design software.

**Recommendation:** This course is open to sophomores, juniors and seniors.

**1633 - Computer Aided Design (CAD) Advanced****.5 credit**

This course will focus on building CAD and Autodesk Inventor skills in preparation to meet the RIDE requirement for an industry certification that demonstrates an aptitude in an industry relevant computer-aided design tool. Autodesk Inventor is a 3D modeling software program that is used in the engineering field to design solutions to engineering problems. This course will expand upon the Autodesk Inventor curriculum that students were introduced to in the course Introduction to Engineering. This course culminates with the Autodesk Inventor certification test.

**Recommendation:** Successful completion of Introduction to Engineering Design.

## **TECHNOLOGY EDUCATION**

Students who have career plans which may include a four-year college, technical or vocational training, or employment after high school are encouraged to enroll in the basic and advanced courses. When selecting technology education courses, students should note that all basic courses are introductory in nature and have no recommendations. These courses survey the subjects, allowing the students ample opportunities to sample the numerous topics within each respective area. Advanced courses require the completion of basic level courses and emphasize content areas to build skills and enhance techniques.

### **Mission Statement**

Technology Education is a program area within the CTE/Applied Arts and Sciences Department. The curriculum enables the student to acquire the awareness, problem solving abilities and technical skills necessary to succeed in a highly industrial and technological society.

### **Expectations for Student Learning in Technology Education:**

The curricula utilized are aligned with Portsmouth High School's School Mission and Expectations for Student Learning. The courses provide the students with the opportunity to:

- Utilize print, audio and visual materials and human resources to access technological information
- Create art that reflects researching/accessing and gathering information through reading and a variety of media
- Use the Internet efficiently for research purposes
- Demonstrate evidence of analysis, synthesis and evaluation through the creative process
- Design and create a product, service or system to meet an identified need
- Create artwork that represents divergent problem solving strategies
- Demonstrate proper techniques and strategies, utilizing technology, for effective problem solving
- Demonstrate responsible social behavior in physically active settings
- Effectively present and explain the process, planning and problem solving techniques used in the creation of a technology based project

### **School-wide Learning Expectations Addressed in Technology Education:**

Expectation 5: Interpret and design visual messages for specific purposes.

Expectation 7: Use technology to discover and demonstrate knowledge.

### **1390 - Digital Electronics - PLTW (CTE)**

**1 credit**

From smartphones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

**Recommendation:** This course is open to sophomores, juniors and seniors.

### **1609 - Graphic Communications**

**.5 credit**

In this basic course, students are introduced to the foundations of graphic arts technology. The focus of the class is to have students explore various opportunities available in the graphic communications industry. Students will have opportunities to investigate conceptual and visual problem solving with actual production methods, using industry standard equipment and computer based design software. Emphasis is on basic computer application, layout and design methods and screen-printing production. This basic course is designed to build basic graphic communication skills needed by commercial printers, graphic designers, production technicians, and other opportunities in entry level communication based careers. This course may be used to fulfill the technology graduation requirement.

### **1616 - Graphic Communications Advanced**

**1 credit**

The focus of the advanced graphic communication class is to provide in depth studies in screen printing, desktop publishing, and photographic conversion of digital images and vector art creation. Students will be able to troubleshoot and solve production, design and printing problems. The students will produce and manipulate images, create documents and design using traditional and contemporary methods. Students will use the process that graphic designers utilize to create their advertisements and graphics involved with websites, apps, television, magazines, newspapers, billboards, 3D printing, and animation. Publication software, Vector Art software and Image editing software are studied in depth. *A final portfolio is required from all students.* The Advanced Graphics course prepares students for further studies in graphic design and communication in College, or intermediate positions in the printing



industry as commercial and graphic designers, production technicians. The opportunity will be available to be ACA certified in Adobe Photoshop.

**Recommendation:** Graphic Communications Basic with a minimum grade of C.

**1631 - Computer-Aided Design (CAD) .5 credit**

This is an introductory course, which explores the basic concepts and principles of communicating in the technical world. This foundation course is designed to build technical communication skills needed by engineers, scientists, designers, architects, builders, technicians and others interested in technical or scientific careers. Students will be using CAD software. This course may be used to fulfill the Technology graduation requirement.

**1633 - Computer Aided Design (CAD) Advanced .5 credit**

This course will focus on building CAD and Autodesk Inventor skills in preparation to meet the RIDE requirement for an industry certification that demonstrates an aptitude in an industry relevant computer-aided design tool. Autodesk Inventor is a 3D modeling software program that is used in the engineering field to design solutions to engineering problems. This course will expand upon the Autodesk Inventor curriculum that students were introduced to in the course Introduction to Engineering. This course culminates with the Autodesk Inventor certification test.

**Recommendation:** Completion of Introduction to Engineering with a minimum grade of B.

## **COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**

### **Mission Statement**

This Computer Science and Information Technology program provides students with the opportunity to explore and nurture their interests in the field of computer science. Students who elect this program of study will receive instruction in current computer languages and applications. All the courses listed below may be taken to fulfill the 0.5 Technology credit that is required for graduation.

### **Expectations for Student Learning in Computer Science and Information Technology:**

The computer science courses offered are aligned with Portsmouth High School's Beliefs about Learning and Learning Expectations. The courses require students to:

- Access and critically analyze information to answer questions and explore ideas
- Solve problems through prioritizing and planning for results
- Write and speak proficiently for a variety of audiences and purposes
- Communicate effectively in a variety of formats
- Interpret and design visual messages for specific purposes
- Engage in work with integrity, both independently and collaboratively
- Demonstrate knowledge and skills through the use of technology
- Demonstrate evidence of analysis, synthesis and evaluation through the creative process
- Demonstrate proper techniques and strategies, utilizing technology, for effective problem solving.
- Effectively present and explain the process, planning and problem solving techniques used in the creation of a technology based project
- Create physical and digital products that demonstrate acquired knowledge and skills

## **School-wide Learning Expectations Addressed in Computer Science and Information Technology:**

Expectation 2: Utilize effective problem solving strategies

Expectation 5: Interpret and design visual messages for specific purposes

Expectation 7: Use technology to discover and demonstrate knowledge

**Note for Ninth Graders:** In order to meet the technology graduation requirement, all incoming ninth grade students are encouraged to enroll in one of the following courses:

1379 - Engineering Essentials - PLTW (CTE)

1380 - Introduction to Engineering Design - PLTW (CTE)

1505 - Introduction to Programming/App Inventor

1609 - Graphic Communications

1631 - Technical Drawing & CAD

1668 - Digital Video Production I (CTE)

1840 - Digital Photo I

### **1505 - Introduction to Programming/App Inventor**

**.5 credit**

This entry-level course is designed for students who are interested in exploring computer science and programming. The curriculum provides instruction in programming through drag and drop block programming using Scratch, Visual Basic, and MIT App Inventor. Students will explore coding concepts such as conditional statements, functions and looping, data types, literals, variables and storing and calculating data. An emphasis will be placed on creating and programming simple Android applications.

**Recommendation:** Algebra 1

### **1509 - Web Page Development**

**.5 credit**

Beginning with an introduction to Hypertext Markup Language (HTML), the student will learn to make his/her own web pages. Once the concepts of HTML have been mastered, students will explore the use of Cascading Style Sheets to control the layout, add and edit colors and images. Students will also learn how to use the Adobe Photoshop software to create and edit images for websites. Students who successfully complete this course may go on to Advanced Web Page Development.

### **1510 - Web Page Development Advanced**

**.5 credit**

Students will explore advanced Web Page development concepts such as web design for mobile or tablet devices. The primary emphasis of this class will be to maintain and update a live website for a community organization. The balance of the class will be devoted to developing skills using various Web Page utilities. This course may be repeated for additional credit.

**Recommendation:** Completion of Web Page Development with a grade of B.

### **1512 - Game Development with Visual Basic**

**1 credit**

This course focuses on the study of computer science and computer programming through the use of the Visual Basic Integrated Development Environment to create a variety of computer and video games. Engineering design principles and effective problem solving techniques are stressed as the student is exposed to techniques of computer programming through the game making process. The student will be expected to design and create computer games and programming solutions to problems in several application areas. Students who successfully complete this course may go on to Visual Basic Advanced to further study advanced programming concepts and techniques through game development.

**1515 - Introduction to Programming (JAVA)****.5 credit**

This course is designed for students who wish to begin their studies in computer programming using the Java programming language. In this course, fundamental programming concepts will be covered. This course will provide the students with traditional procedural programming skills, which the student will apply in creating various programming solutions. This course is designed to prepare the student to successfully enroll in AP Computer Science (JAVA).

**1516 - AP Computer Science A (JAVA)****1 credit**

This rigorous course is designed for the dedicated programming student who wishes to receive Advanced Placement credit by successfully completing the required College Board's Advanced Placement Exam in Computer Science in the Java language. Procedural and Object Oriented Programming will be applied to solve various traditional programming exercises as well as to engineer real world solutions.

**Recommendation:** Completion of Introduction to Programming (Java), Game Development with Visual Basic with a grade of B.

**SPECIAL EDUCATION****Special Education Department Mission Statement**

The mission of the Special Education Department is to allow individuals of all abilities to actively participate in courses that are in the least restrictive environment. These courses, whether in the Collaborative, or Academic Support program, will follow the regular education curriculum. Each student, depending on his or her disability, will receive specialized instruction and will have accommodations made to meet individual needs. It is these accommodations and modifications that make it possible for each student to be a lifelong learner.

**Expectations for Student Learning:**

Students will be expected to meet the learning expectations in their general education classes.

**School-wide Learning Expectations Addressed in Special Education:**

Students will be exposed to the school-wide learning expectations in their general education classes

**COLLABORATIVE INCLUSION CLASSES**

Special education students who require specialized instruction within core academic classes are enrolled in co-taught classes taught by a content teacher and a special educator. These courses incorporate a co-taught model based on the goals that are in the student's IEP.

**SPECIALIZED PROGRAMS & LIFE SKILLS PROGRAM**

This program is specific to special education students who qualify for alternate assessment. The curriculum is individualized to help students learn career readiness skills, gain community and employment experience and increase their activities of daily living skills.

**9911 - Academic Support****0 credit**

Students enrolled in academic support receive service from a special education teacher in areas outlined in their Individualized Education Plan related to Self-Awareness, Social Awareness, Self-Management, Relationship Skills or Responsible Decision Making Skills.

**1980 - Adaptive Physical Education (9-12)****.5 credit**

This program is designed to meet the needs of individuals who may require adaptations or modifications in Physical Education because of medical or other limiting factors. A specialized Individual Education Plan (IEP) is developed and implemented based on specific recommendations or physician referral.

<b>WORK EXPERIENCE</b>
------------------------

**For extenuating circumstances, when students have had prior approval by an administrator - after a review of a comprehensive plan which connects to college and career goals - they may be considered for this opportunity.**

The Work Experience Program allows the opportunity to combine the completion of the high school program with entry into the job market. Seniors are released from school each day to go to their location of employment. Students provide their own transportation to the site.

An Administrator supervises the process of entry into the program. The Administrator also meets with the job supervisors of the students.

Acceptance into the Work Experience Program is based on the following factors:

1. Graduation in that academic year is a realistic goal
2. The job is coordinated with the purpose of the Program and can be of benefit to student growth in work endeavors.
3. Parental approval
4. Approval of an Administrator, who administers the program and recommendation of the student's school counselor .

Students finally selected into the Program will have their schedule altered to include two classes per day for the 3 credit course and three per day for the 2 credit course.

**Note:** It is understood that the parent or guardian must be aware of the number of credits a student has and his/her status in relation to his/her graduation. If for any reason the student comes out of the work experience program, he or she will carry a full class load at Portsmouth High School.

Because of the amount of credits involved in the work experience program and the limited number of academic classes taken, a student who encounters difficulty in either the work experience program (such as termination) or academic program may find himself/herself without required school credits toward graduation.

**2995 - Work Experience****2 credits****2996 - Work Experience****3 credits**

**PORTSMOUTH HIGH SCHOOL  
STUDENT PLANNING GUIDE**

NAME \_\_\_\_\_ DATE \_\_\_\_\_  
COMPLETED \_\_\_\_\_

YOG \_\_\_\_\_ COUNSELOR \_\_\_\_\_

SUBJECT	GRADE 9	CR.	GRADE 10	CR.	GRADE 11	CR.	GRADE 12	CR.
ENGLISH								
MATHEMATICS								
SCIENCE								
SOCIAL STUDIES								
MODERN WORLD LANGUAGE								
COMPUTER								
PE/HEALTH								
FINE ARTS								
OTHER								

CAREER GOAL \_\_\_\_\_

EDUCATIONAL GOAL: 2-YR. \_\_\_\_\_ 4-YR. \_\_\_\_\_ TRADE/TECHNICAL \_\_\_\_\_  
OTHER: \_\_\_\_\_

**ACTION STEPS** \_\_\_\_\_

**GRADUATION REQUIREMENTS:** A MINIMUM OF 23 CREDITS IS REQUIRED FOR GRADUATION. SUBJECT AREA REQUIREMENTS ARE: ENGLISH:( 4 CR.), MATHEMATICS: (4 CR.), SOCIAL STUDIES: (3 CR.), , SCIENCE: (3 CR.), PE/HEALTH: (2 CR.), TECHNOLOGY: (.5 CR.), FINE ARTS: (.5 CR.)

**STUDENT SIGNATURE:** \_\_\_\_\_

**NOTES:**