

Program of Studies 2017-2018

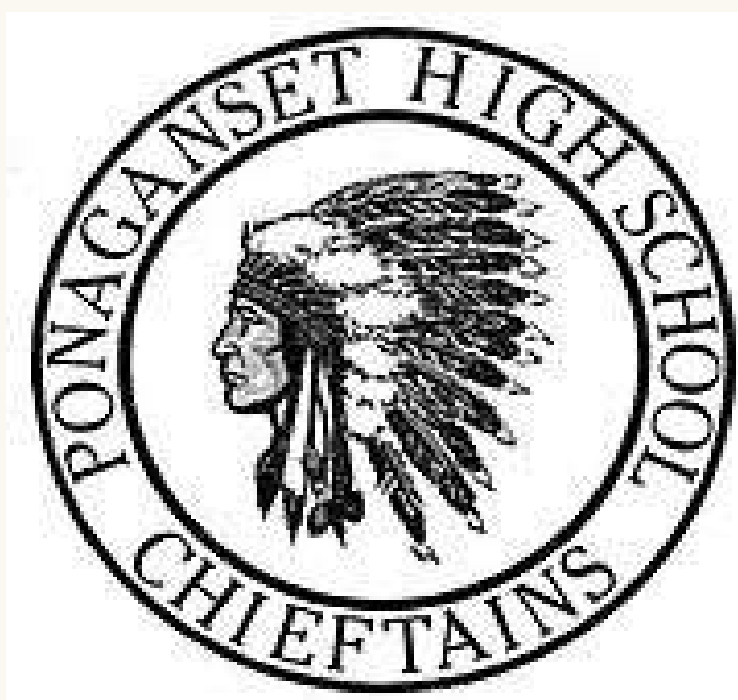


START HERE. GO BIG!



PONAGANSET HIGH SCHOOL MISSION STATEMENT

At Ponaganset High School, we are committed to developing life-long learners in a culture of respect, excellence, and pride by empowering members of our school community to be dynamic contributors to the global society.



STATEMENT OF POLICY

FOSTER-GLOCESTER REGIONAL SCHOOL DISTRICT AFFIRMATIVE ACTION/EQUAL OPPORTUNITY POLICY

It is the policy of the Foster-Glocester Regional School District not to discriminate on the basis of age, marital status, race, religion, national origin, color, creed, sex, political affiliation, sexual orientation, or disability. Inquiries regarding compliance with Equal Opportunity and Affirmative Action may be directed to the Affirmative Action Officer / Assistant Superintendent, located at the Foster/Glocester Regional School District Office 137 Anan Wade Rd, Chepachet, RI 02814 Phone: 401-710-7500. Opportunities in career related learning experiences are open to all students regardless of age, race, color, national origin, sex, or disability

TABLE OF CONTENTS

Graduation Expectations.....	Pages 4-7
Academic Policies.....	Pages 8-11
Humanities (English, History, Visual Art Pathway).....	Pages 12-21
Music and Performing Arts.....	Pages 22-29
Family and Consumer Science.....	Page 30
World Languages.....	Page 31
Business and Marketing.....	Page 32
Science, Engineering, Technology, Mathematics (STEM).....	Pages 33-56
• Animal and Plant Systems Pathway.....	Pages 34-37
• Biomedical Pathway.....	Pages 38-40
• Computer Science and Information Technology Pathway.....	Pages 46-48
• Materials and Manufacturing Pathway.....	Pages 50-51
• Pre-Engineering (Robotics) Pathway.....	Pages 52-55
Health and Wellness	Page 57

Ponaganset High School Performance Graduation Expectations

W (Writing) : The student writes effectively for a variety of purposes and audiences. The proficient student:

W1 Creates narrative writing to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences (CCSS – W-3)

W2 Creates informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content (CCSS – W-2)

W3 Creates argumentative writing to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence (CCSS – W-1)

W4 Creates reflective essays that explore and share thoughts, observations, and impressions about their learning

W5 Creates a scientific lab report by identifying a problem, predicting an outcome, collecting data and analyzing and evaluating results.

W6 Creates a writing in a world language (Chinese or Spanish) that effectively organizes ideas, information, opinion, or story.

RD (Reading): The student reads literary, informational text and other media for a variety of purposes. The proficient student:

RD1 Demonstrates initial understanding of literary text and analyzes and interprets literary texts, citing evidence as appropriate

RD2 Demonstrates initial understanding of informational text and uses strategies to analyze, understand, and interpret informational text across content areas

S (Speaking): The student speaks, presents, and converses well. The proficient student:

S1 Makes a presentation in order to share information

S2 Converses effectively in order to exchange ideas as well as express and/or defend a point of view

S3 Makes a presentation in a world language (Chinese or Spanish) in order to share information, role play, or converse to express ideas or a point of view

PS (Problem Solving): The student solves problems with creative and critical thinking skills. The proficient student:

PS Identifies a problem; gathers and assesses information, generates and refines solutions, and communicates the findings

RF (Reflecting): The student effectively reflects on his/her thinking and/or performance. The proficient student:

RF Identifies strengths and areas that require improvement and communicates ways to improve in the future

M (Mathematics): The student utilizes mathematics to solve relevant (situational) problems. The proficient student:

M Demonstrates strategic mathematical knowledge, problem solving and communication using multiple representations (words, mathematic symbols, tables, graphics, etc) and justifies work in a logical, fluent manner as to its relevance in solving the problem

PR (Personal Responsibility): The student demonstrates personal responsibility. The proficient student:

PR1 Shows initiative, self-discipline, good decision making and perseverance in achieving success

PR2 Shows initiative, self-discipline, good decision making and perseverance in achieving a healthy lifestyle

T (Technology): The student applies technology. The proficient student:

T Manipulates technology as a tool to gather, to analyze, to organize, and to present information

C (Civics): The student displays civic and social responsibility and initiative. The proficient student:

C1 Makes a contribution to the community

C2 Recognizes that people have certain rights, responsibilities and differences

Digital Portfolio Minimum Acceptable Entry and PGE Requirements

	<i>Minimum Number of Acceptable Entries Required to Graduate</i>	<i>Minimum Number of Acceptable Entries Per PGE</i>	
Class of 2015 and beyond	28	<i>W</i>	16*
		<i>RD</i>	3
		<i>S</i>	7
		<i>PS</i>	6
		<i>RF</i>	18
		<i>M</i>	6
		<i>C</i>	1

*minimum of 2 learner outcomes met with at least 3 entries for each

What are the PHS Performance Graduation Expectations?

Simply stated, the PHS Performance Graduation Expectations (PGEs) are a concise listing of nine school-wide expectations of what ALL students should know or be able to do upon graduation from Ponaganset High School. These rigorous, performance-based standards were developed by faculty, parents, and students during the 2001-02 school year and revised in 2008 and 2013. While they are exclusive to Ponaganset High School, they are also aligned with the state-adopted content and performance standards known as the Common Core State Standards. Each PGE has learner outcomes to clarify to a greater degree the work and performances the student is required to demonstrate in individual departments/classes to meet a given expectation.

How are students assessed in meeting the school-wide expectations?

All students will be assessed through use of rubrics that are aligned to the Ponaganset Graduation Expectations. Teachers will generate assignments (known as common tasks) that will be common for a given course, regardless of level or instructor. These assignments will provide learning opportunities so that students may meet a given Learning Outcome(s) and will be assessed using the rubrics. In each course description in this catalog, the Learner Outcomes addressed in that course are delineated.

Each rubric has a consistent rating scheme:

Performance Rating	Descriptive Label	Explanation of Terms
4	Exceeds the Outcome	The student's work/performance is at a level of excellence that exceeds what is expected.
3	Meets the Outcome	The student is performing at an acceptable level and has achieved the skills/competencies to meet the outcome.
2	Nearly Meets the Outcome	The student's work/performance is nearly acceptable, but needs further refinement or effort.
1	Does not Meet the Outcome	The student still needs make significant progress in their work/performance.

How do students satisfy the Performance Graduation Expectations?

Students must demonstrate a consistent acceptable level of accomplishment (a 3 or higher on the rubric) on the various Learner Outcomes. Through their four-year educational experience, students will collect artifacts of their work that demonstrate they have achieved proficiency in the Learner Outcomes and place them in within their own personal digital portfolio. In essence, the portfolio will be a collection of the student's best work and will also show growth and development over time. It is important to realize that it may take some students longer than others, but the Learner Outcomes represent high standards for all students.

While all students may not meet learner outcomes on every attempt. ALL students will have opportunities to demonstrate proficiency in outcomes in all nine Performance Graduation Expectations. To satisfy the expectations, the student must earn an average rating of 3 or higher on the minimum number of acceptable entries per PGE. (See Digital Portfolio Minimum Entry and PGE Requirements per Class table above.)

How will student digital portfolios be maintained and assessed?

Students will receive training within their core academic classes in the development and maintenance of their portfolios, which are housed externally on a web server. All portfolios will be accessible via the internet; however, all student work is password protected and can be accessed only by the student and his/her teachers. Students will create artifacts, assess their work, and maintain their portfolios during class time. In this, invaluable technology training for students is embedded in classroom instruction.

Since the portfolio is a graduation requirement, it is obviously a high-stakes proposition. Therefore year-end reviews are conducted to monitor and evaluate reasonable progress toward meeting the schools PGEs (Ponaganset High School Graduation Expectations). The year-end reviews also serve as a preparation toward the Senior Exhibition. These evaluations count for ten percent of the final exam grade.

How may I learn more?

The Help function and the Info page of the digital portfolio are great resources. Students and parents with usernames and passwords can access the digital portfolios at www.richerpicture.com/ponaganset

ACADEMIC POLICIES

REPORT CARDS

Report cards will be issued four times a year by Ponaganset High School. This document is a report of a student's academic progress and is designed as communication between the school authorities and parents/guardians. Report cards and progress reports mailed home and/or sent via email. Parents/Guardians are encouraged to check the schools website for distribution information and dates.

CLASS RANK GRADE POINT AVERAGE

Letter Grade	Numerical Grade	Quality Points	Weighted +.5 Honors	Weighted +1 AP/EEP
A+	97-100	4.2-4.5	4.7-5.0	5.2-5.5
A	93-96	3.8-4.1	4.3-4.6	4.8-5.1
A-	90-92	3.5-3.7	4.0-4.2	4.5-4.7
B+	87-89	3.2-3.4	3.7-3.9	4.2-4.4
B	83-86	2.8-3.1	3.3-3.6	3.8-4.1
B-	80-82	2.5-2.7	3.0-3.2	3.5-3.7
C+	77-79	2.2-2.4	2.7-2.9	3.2-3.4
C	73-76	1.8-2.1	2.3-2.6	2.8-3.1
C-	70-72	1.5-1.7	2.0-2.2	2.5-2.7
D+	68-69	1.3-1.4	1.8-1.9	2.3-2.4
D	65-67	1.0-1.2	1.5-1.7	2.0-2.2
F	64 and less	0		

EXAMS

Exam are given according to the individual syllabi of the classroom teachers and their departments throughout the year. Formal end-of-course examinations are given as departmental exams, in January for fall semester courses, and in May and June for spring and full-year courses. Please note that students are expected to appear for the mid-term/final exam on the day that it is scheduled, unless they have an excused absence per school policy. If the student fails to show up for the exam, an I (Incomplete) for the exam will be issued and the student will not receive a final grade for the course. A student will have a maximum of **seven** days to complete the final exam. However, for the final marking period, students who do not complete and pass tasks/assessments will receive a grade of —Incomplete on the report card and will have Summer School, re-taking the course, or the credit recovery program as options for making up the work and attaining the required proficiency level for passing the course or subject.

PROGRESS REPORTS

All PHS students receive quarterly progress reports electronically or via mail. The schedule for progress reports is determined yearly and generally falls at the mid-point of each quarter. Check the schools website for distribution dates. Students are advised whether or not a warning has been issued, failure is still possible in that subject. Ponaganset High School does not issue credit on the basis of a technicality. Concerns regarding the mid-quarter progress report should be brought to the attention of the school counselor and/or classroom teacher.

INCOMPLETE POLICY

When graded work is missing or incomplete, it will be reflected in the electronic grade book. It is expected that our teachers and staff will make multiple attempts to intervene with and communicate with students and/or parents about incomplete or failing work. Should a student earn a grade of “Incomplete” for a marking period, the student will have two weeks (ten school days) after the marking period closes to submit tasks/assessments for an academic achievement grade.

HONOR ROLL AND HONOR SOCIETIES

Each quarter, an Honor Roll will be published listing the students who have made Highest Honors, High Honors and Honors. This list will be published at the school and in the local newspapers by the Guidance Department. The Honor Roll will be determined on the basis of all grades submitted up to and including the date set for completion of incompletes.

Highest Honors GPA 3.67 or higher
 High Honors GPA 3.25 to 3.66
 Honors GPA 3.00 to 3.24

NOTE: To be considered for the Honor Roll, a student must have a full schedule (five subjects and physical education/health) with a grade point average of at least 3.00, and have no more than one C as their lowest grade. Students may earn the distinction of both the Rhode Island Honor Society and the National Honor Society at Ponaganset High School. Discipline issues however, *may preclude a student from being eligible for either honor society.*

Rhode Island Honor Society has, as its membership, those seniors with four leadership traits: responsibility, courtesy, cooperation and constructive classroom leadership. Seniors are eligible for nomination to the Society with a cumulative average of 3.30 on a 4.0 scale in all full time subjects by the end of the 7th semester of their senior year.

National Honor Society Requirements: National Honor Society eligibility starts at the end of the 5th semester, and is reviewed at the end of the 7th semester. Students who have achieved a cumulative average of at least 3.5 by the end of the fifth semester will be invited to provide additional information to the Faculty Membership Committee.

National Honor Society candidates must demonstrate exemplary characteristics in the following are:

- Scholarship
- Service
- Leadership
- Character

Each National Honor Society candidate shall:

- Be subject to review by the Faculty Membership Committee (5 members with the advisor as a 6th non-voting member; selection requires a majority vote of the FMC).
- Have demonstrated a minimum of thirty (30) hours of community or school service.
- Provide at least three endorsements/letters of recommendation attesting to the student's character.
- Name at least three leadership roles achieved at school or in the community since the 9th grade. The candidate must provide specific details about their leadership activities and the name(s) of the adult(s) who supervised each of these activities.

National Honor Society Standards

Any candidate who does not meet all of the above requirements will be considered ineligible for membership. Candidates who meet all the requirements for membership, and are approved by the Faculty Membership Committee, will be notified of their selection before publication of the inductee list. These candidates will be given an opportunity to accept or reject membership. Members of the National Honor Society will, as a group, identify and participate in a community service project that meets the requirements of the National Honor Society. In the event that an individual is unable to participate in the group service project, he/she must undertake an individual service project. All service projects must meet the guidelines of the National Honor Society, and receive prior approval from the Faculty Advisor.

Members of the National Honor Society who fail to maintain the standards of the National Honor Society will be removed from the National Honor Society. Each member's eligibility status will be reviewed at the end of the 7th semester to ensure that the standards of the National Honor Society are maintained. In the case of serious misconduct, a member may be removed from the National Honor Society immediately.

STUDENT SCHEDULE CHANGE

The master schedule is built based upon student pre-registration changes and requests. All students will receive a copy of their final schedule prior to the end of the school year. Students can request changes to their schedule by the last day of school. Any change thereafter will not be made except for compelling circumstances. An example of a compelling circumstance is a medical issue that would necessitate a change to a student's schedule in the interest of his/her personal health and wellbeing. In this example, documentation from the student's physician would be required prior to adjusting a student's schedule. The following are not considered compelling circumstances and will not result in a schedule change: a change of mind, lack of motivation, request for a different faculty member, and requests for a different class period. In any case or request, approval must be provided by an administrator.

If there is an error on a student's schedule (e.g. a student was enrolled in an incorrect second year course requiring a prerequisite), the student's guidance counselor will make the necessary correction. Student course requests may not always be accommodated even if the course change request was submitted on time. Class size or section conflicts may prevent a student from receiving his/her first choice of elective or content courses. Furthermore, if at the time of re-registration (second semester), a student receives approval for a particular course but subsequently fails to fulfill course prerequisites, the student will be placed in an alternative elective course based upon availability.

A student's transcript is an accurate reflection of his/her academic record while attending Ponaganset High School. An administrator approved schedule change after the start of the school year will conform to the following policy: The student's transcript will reflect the withdrawal and indicate a —W for the original course grade.

NOTE: In the event of an administrator approved course change, no student may be admitted to or drop a new class without the appropriate paperwork from the Guidance Department. Students must return all materials to their former class before transferring to another class. In addition, they must obtain their parent, teacher, and counselor's signature on their change request form.

PONAGANSET HIGH SCHOOL

GRADUATION REQUIREMENTS

English	4 Credits
Mathematics (*3 credit required + 1 in an approved math related area)	4* Credits
Science	3 Credits
Social Studies	3 Credits
Technology**	0 Credits
Physical Education and Health (2 credits required—1/2 credit per year for four years)	2 Credits
Arts	0.5 Credits
Personalized Learning Courses (Electives)	5.5 Credits

MINIMUM CREDITS REQUIRED FOR GRADUATION: 22 Credits

*Students must successfully complete a fourth mathematics course which may be in an elective course where there is application of mathematical skills and concepts that has been explicitly mapped to the CCSS. The guidance department shall maintain a list of courses that have been approved to satisfy this requirement.

** The technology requirement shall be satisfied by the successful completion of a Ponaganset High School Digital Portfolio.

GRADUATION REQUIREMENTS ALSO INCLUDE:

1. Successful completion of a Senior Research Paper.
2. Successful completion of a Senior Graduation Exhibition.
3. Successful completion of a Digital Graduation Portfolio.
4. Successful completion of an approved state assessment based upon year of graduation. (See current Graduation by Proficiency Diploma System Policy)

We are committed to providing students with the language skills necessary for them to be successful in their individual pursuits after high school. To this end, students will read and analyze a variety of literary texts which have been organized around various themes. Classroom discussions, student presentations, student projects, and other teacher designed activities will be used to enhance understanding. As a graduation requirement, all twelfth-grade students must complete a senior research paper. With this end in mind, students, beginning in grade nine, will receive instruction in expository writing. As a department, we believe that writing should be taught as a process and revision of work will be emphasized.

ENGLISH 9 1 Credit

126 COLLEGE PREPARATORY *

128 HONORS*

How does the study of fiction and nonfiction texts help individuals construct their understanding of reality? Students will practice and improve the skills associated with reading, writing, speaking and listening as denoted in the Common Core State Standards. Throughout the course, students will read, comprehend, and analyze both literary and informational texts of an appropriate text complexity proficiently with support as needed. Instruction will focus upon examination of a variety of themes such as the search for equality, the nobility of the individual, and the nature and effects of heroism. Students will write argumentative, informational, and narrative compositions for a variety of purposes and audiences. Students will be required to demonstrate proficiency in research techniques and practice their speaking skills by developing and delivering research-supported presentations.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

ENGLISH 10 1 Credit

144 FOUNDATIONS

146 COLLEGE PREPARATORY*

148 HONORS*

How is literature a record of cultural development and change? Students will continue the focus on reading, writing, speaking and listening framed within the Common Core State Standards and begun in the ninth grade. By the end of the year, students will be expected to demonstrate proficiency in reading appropriately complex literary and informational text independently. Students will continue practicing the composition of argumentative, informational, and narrative writing for a variety of purposes and audiences with the primary focus being on argumentative and informational forms. Also, considerable attention will be given to improving the students' research skills with particular concentration on the ability of the student to select meaningful research from valid sources and seamlessly integrate that research into their writing.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

ENGLISH 11 1 Credit

164 FOUNDATIONS

166 COLLEGE PREPARATORY*

168 HONORS*

How does adversity shape us as individuals? Instructional emphasis is placed upon improving literal, interpretive, and critical reading skills for both literary and informational texts. Because of the emphasis in the Common Core State Standards, students will be expected to develop a more sophisticated understanding of author's craft and text structures and will undertake comparative analysis of works with a similar purpose, theme, or structure. Students will continue developing their writing and research skills while primarily concentrating on argumentative and informational forms. Students will be expected to demonstrate their proficient writing and research skills by completing their junior research paper, a digital portfolio assignment.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

ENGLISH 12 1 credit

184 FOUNDATIONS

186 COLLEGE PREPARATORY*

188 HONORS*

How does the study of literature prepare individuals to be global citizens? English 12 continues the focus on reading, writing, speaking, and listening framed within the Common Core State Standards. By the end of the year, students will be expected to demonstrate proficiency in reading appropriately complex literary and informational text independently. Also, a significant concentration of the course is the completion of the Senior Research Paper, the basis of inquiry for their Senior Exhibition Project. This project serves as a culmination of the instruction on research-supported argumentative and informational writing that students have received throughout all of their English courses in high school.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

ADVANCED PLACEMENT ENGLISH LANGUAGE and COMPOSITION 1 credit* Hn.

What choices and strategies do essayists wrestle with as they attempt to persuade their audiences?

The AP English Language and Composition course is designed to help students become skilled writers who can compose for a variety of purposes. By their writing and reading in this course, students should become aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way that conventions and the resources of language contribute to effective writing. This is a challenging elective, but available to students at any ability level. We will read authors from many historical periods, including the present.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

ADVANCED PLACEMENT ENGLISH LITERATURE 1 credit* Hn.

How does the analysis of great written works contribute to an appreciation of the artistry of fiction and poetry and to the understanding of cultural, historical, and societal perspectives and issues? In this course, students will be challenged to practice and improve their evaluative, analytical, and expository writing skills as they expand and hone their skills in literary analysis. To meet these goals, students will be asked to demonstrate a high level of understanding and appreciation for challenging literary texts, explain the authors' uses of advanced writing techniques, structures, and literary elements, and analyze and evaluate themes as considered throughout individual works and in comparison with other thematically similar works. The primary means by which students will demonstrate their attainment of these goals is through their writing.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

JOURNALISM 1 credit* (Grades 9-12)

Journalism is an exciting, fast-paced orientation to the highly competitive field of journalism. This course provides a chance to work in an upbeat environment with a focus on writing, interviewing and publishing in different styles and for different audiences. The history of journalism and a journalist's civic responsibility are taught through a close examination of The First Amendment with specific attention placed on Freedom of Press and Freedom of Speech. Careers in journalism, and the influence of mass media in our culture will also be examined. The goal of this course will be to electronically publish a school newspaper and a magazine.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

DRAMA: The Fundamentals of Acting .5 credit (Grades 9-12)

What roles do you play in your life? How do actors communicate with an audience? How does an audience communicate with actors? How do you become a "character" on stage? What can you do to ease your anxiety on stage? What life skills can we learn through acting? This class is an introduction to the principles of acting. The course is designed for performers and anyone else who wants to free their bodies for maximum efficiency for self-expression, public speaking, and communication. This will be achieved through sensory awareness, physical and vocal exercises, improvisations, character development, and scene study.

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

COLLEGE WRITING

½ Credit One Semester Grade 12

College Writing (WRT 104) is three credit college level course offered by the University of Rhode Island. This course is designed for students who wish to assume the challenges and responsibilities of a college freshman English class. Writing 104 covers varieties and strategies of expository writing for different audiences and situations. Students are introduced to a number of different genres including summary of complex text, reports, proposals, profiles, letters, and public documents. Students are given experience in a number of rhetorical patterns to further their knowledge and practice of the writing strategies of invention, composing, and revision in more complex writing assignments in public, community settings. In addition, this course provides extensive practice in the critical reading of complex texts and using information technologies for research. Students collaborate with their peers to develop, draft, and revise focused, well-organized, coherent, polished documents. Writing 104 fulfills an English Communications Writing credit (ECw) at the University of Rhode Island.

LITERACY 1 credit (Grades 9-12)

This course is designed to assist students in increasing their proficiency in the English/Language Arts skills needed to succeed in a high school course of study. The curriculum, student assessments, and student portfolio reflect the course's focus on increasing students' proficiency in comprehending a range of materials of varying length and complexity, their ability to analyze and interpret what they read in the process of becoming critical readers, and their ability to write effectively in a variety of formats according to current standards of correctness. Enrollment in this course is contingent on standardized testing data and the Personal Literacy Plan (PLP) of the selected students

PGEs: W1; W2; W3; W4; RD1; RD2; RF 1; PR 1

MODERN WORLD HISTORY 1 credit

426 COLLEGE PREPARATORY*

428 HONORS*

Why is this time period the beginning of the modern world? This course provides an overview of the history of human society in the past few centuries—from the Renaissance period to 1900—exploring the political, economic, social, religious, military, scientific, and cultural developments. Although emphasis will be on the development of the West, attention will be given to the development of Russia, China, Japan and other non-western areas. Some of the time periods the students will study are the Renaissance, Reformation, Age of Discovery, rise of absolute monarchs, the Enlightenment, French Revolution, Industrial Revolution, Nationalism, and Imperialism. The standards from the National Council for History will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

UNITED STATES HISTORY 1 credit

444 FOUNDATIONS

446 COLLEGE PREPARATORY*

448 HONORS*

Has the United States become the nation that it originally set out to be? This course is a comprehensive course that provides an overview of the major events, ideas, and trends in American history beginning with the creation of the New Nation to 1900. This course includes a historical overview of the political, military, scientific, and social developments. Some of the major topics include: Articles of Confederation, Constitution, slavery, Civil War, Reconstruction, Industrial Revolution, and Immigration. The standards from the National Council for Social Studies and the National Council for History will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

ADVANCED PLACEMENT

U.S. HISTORY 1 credit* (Grades 10-12) Hn.

Has the United States become the nation that it originally set out to be? Following the College Board's suggested curriculum designed to parallel college-level US History courses, AP US History provides students with analytical skills and factual knowledge necessary to address critical problems and materials in US history. The course examines the discovery and settlement of the New World through the recent past. . This course includes a historical study of the political, military, scientific, and social developments. Some of the major topics include: Articles of Confederation, Constitution, slavery, Civil War, Reconstruction, Industrial Revolution, and Immigration. The standards from the National Council for Social Studies and the National Council for History will be emphasized. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October 1.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

EARLY ENROLLMENT PROGRAM US HISTORY 1 credit* Hn.

Has the United States become the nation that it originally set out to be? Following the EEP curriculum designed to parallel college-level US History courses, EEP US History provides students with analytical skills and factual knowledge necessary to address critical problems and materials in US history. The course examines the discovery and settlement of the New World through the recent past. . This course includes a historical study of the political, military, scientific, and social developments. Some of the major topics include: Articles of Confederation, Constitution, slavery, Civil War, Reconstruction, Industrial Revolution, and Immigration. The standards from the National Council for Social Studies and the National Council for History will be emphasized. To receive an EEP college credit successful completion as determined by the college is required.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

TWENTIETH CENTURY HISTORY 1 credit

464 FOUNDATIONS

466 COLLEGE PREPARATORY*

468 HONORS*

Why is the Twentieth Century referred to as the American Century? In this course students will have the opportunity to examine high interest events and trends that have helped shape the Twentieth Century. Within the themes of international power politics, technology, economic expansion, pop culture, and individual rights, students will examine such periods as the First World War period, the Great Depression, World War Two and the resulting world dynamics, the Cold War, Vietnam, the Middle East, and the Civil Rights movement. The role of modern media, music, technology, and transportation and their impact on the global economy will be emphasized. The standards from the National Council for Social Studies and the National Council for History will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

ECONOMICS .5 credit* (Grades 10-12)

How does economics affect your life and the lives of others? This course is designed to give both a theoretical and practical approach to fundamental economic concepts. Some of the areas this course will focus on include the concept of supply and demand, the consumer, market economy and comparative economic systems, non-profit organizations, role of financial institutions, and the stock market.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

HUMANITIES

Graduation
Requirements:

3 Years of
Social Studies

EAST ASIAN HISTORY

.5 credit* (Grades 10-12) CP/Hn.

How does China and Japan's history help us to understand their place in the world today? Two countries that have figured prominently in our history of the current century are Japan and China. The quarter on China will focus on some of the following topics: geography, religion, philosophy, and major dynasties, the Peoples' Republic of China, and Tiananmen Square. The quarter on Japan will focus on some of the following topics: geography, religion, philosophy, feudalism, the opening of Japan, Meiji Restoration, World War I and II, and Japan's recent role in world affairs. The standards from the National Council for History will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

WORLD CULTURES

.5 credit* (Grades 10-12) CP/Hn.

Why is the study of World Cultures important in today's world? This course will examine how culture interacts with environmental factors as they impact our political systems, economies, societal structures and philosophies. Some of the themes/concepts that provide the framework for the content of the course will be demographics, ethnicity, religion, and political systems, folk and popular cultures. Emphasis will be placed on the comparative of various experiences found throughout the world. Special attention will be given to the areas of the Middle East, India, and East Asia. The standards from the National Council for Social Studies will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

INTRODUCTION TO CRIMINAL LAW

.5 credit* (Grades 9-12)

What are the roles and responsibilities of citizens and government in a democratic government? This course is an overview of the American Criminal Justice System that includes the types and classes of crime, the functions of the police, courts, and corrections and the ethical standards in the related fields. This course will provide a foundation for future study in the areas of law, safety, security, government and public administration. This is the first course in a three-year sequence for the pathway of Law, Public Safety and Security. Successful completion of the pathway leads to college credit. The standards from the National Standards for Civics and Government will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

YOUTH AND LAW

.5 credit* (Grades 10-12)

How does the law relate to juveniles? Youth and Law provide practical information and problem solving opportunities that allow for the survival in our law-saturated society. The course includes case studies, mock trial, role-playing, small group activities and visual analysis activities. Various community resources will also be utilized. The course will focus on the United States legal system with emphasis on crimi-

nal law and juvenile justice, individual rights and liberties, family court, torts, and consumer law. The standards from the National Standards for Civics and Government will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

SOCIOLOGY

.5 credit* (Grades 10-12)

What impact does people interacting with one another have on a society? Sociology introduces students to the study of human behavior in society. The focus of the course will be the study of social institutions and norms such as the family, education, religion, and the work place, and the causes and effects of social inequality and social change. The standards from the American Sociological Association (ASA) National Standards for High School Sociology will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

PSYCHOLOGY

.5 credit* (Grades 10-12)

How can understanding the individual be useful in addressing a wide array of individual and global issues? Psychology introduces students to the study of individual human behavior. The course uses a variety of teaching techniques, including discussions, films, surveys, research activities, and readings to introduce the student to the many diverse areas of psychology. Some of the principal areas covered include human personality and development, personality and behavior, adolescence, and abnormal psychology. The standards from the National Standards for High School Psychology Curricula will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

US/GLOBAL AFFAIRS

.5 credit* (Grades 9-12)

What are the immediate and long term effects of events happening in the world today? This course will function as an investigation of a range of social, geographic, political, economic and ideological developments in the contemporary world. This course will explore how these developments or influences affect how the United States relates to others countries in an interdependent world context.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

SERVICE LEARNING and GLOBALIZATION

.5 credit (Grades 9-12)

How far am I willing to go to make a difference and what can I do to support the common good in my school, community, or even state? Service learning is a method that combines academic instruction, meaningful service, and critical reflective thinking to enhance student learning and civic responsibility. In-class debates between the students and instructor on topics including, but not limited to, the challenges and threats of globalization, global governments, climate change, inclusion and inequality, migration, etc. Students will implement what they have learned from about serving communities from *Introduction to Global Affairs* course and through coordination with their teacher, undertake a semester long community service project. "Topics vary from year to year."

Prerequisite: *Introduction to Global Affairs*

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

EAST ASIAN HISTORY

.5 credit* (Grades 10-12) CP/Hn.

How does China and Japan's history help us to understand their place in the world today? Two countries that have figured prominently in our history of the current century are Japan and China. The quarter on China will focus on some of the following topics: geography, religion, philosophy, and major dynasties, the Peoples' Republic of China, and Tiananmen Square. The quarter on Japan will focus on some of the following topics: geography, religion, philosophy, feudalism, the opening of Japan, Meiji Restoration, World War I and II, and Japan's recent role in world affairs. The standards from the National Council for History will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

WORLD CULTURES

.5 credit* (Grades 10-12) CP/Hn.

Why is the study of World Cultures important in today's world? This course will examine how culture interacts with environmental factors as they impact our political systems, economies, societal structures and philosophies. Some of the themes/concepts that provide the framework for the content of the course will be demographics, ethnicity, religion, and political systems, folk and popular cultures. Emphasis will be placed on the comparative of various experiences found throughout the world. Special attention will be given to the areas of the Middle East, India, and East Asia. The standards from the National Council for Social Studies will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

SOCIOLOGY .5 credit* (Grades 10-12)

What impact does people interacting with one another have on a society? Sociology introduces students to the study of human behavior in society. The focus of the course will be the study of social institutions and norms such as the family, education, religion, and the work place, and the causes and effects of social inequality and social change. The standards from the American Sociological Association (ASA) National Standards for High School Sociology will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

PSYCHOLOGY .5 credit* (Grades 10-12)

How can understanding the individual be useful in addressing a wide array of individual and global issues? Psychology introduces students to the study of individual human behavior. The course uses a variety of teaching techniques, including discussions, films, surveys, research activities, and readings to introduce the student to the many diverse areas of psychology. Some of the principal areas covered include human personality and development, personality and behavior, adolescence, and abnormal psychology. The standards from the National Standards for High School Psychology Curricula will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

US/GLOBAL AFFAIRS

.5 credit* (Grades 9-12)

What are the immediate and long term effects of events happening in the world today? This course will function as an investigation of a range of social, geographic, political, economic and ideological developments in the contemporary world. This course will explore how these developments or influences affect how the United States relates to others countries in an interdependent world context.

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

SERVICE LEARNING and GLOBALIZATION

.5 credit (Grades 9-12)

How far am I willing to go to make a difference and what can I do to support the common good in my school, community, or even state? Service learning is a method that combines academic instruction, meaningful service, and critical reflective thinking to enhance student learning and civic responsibility. In-class debates between the students and instructor on topics including, but not limited to, the challenges and threats of globalization, global governments, climate change, inclusion and inequality, migration, etc. Students will implement what they have learned from about serving communities from *Introduction to Global Affairs* course and through coordination with their teacher, undertake a semester long community service project. "Topics vary from year to year.

Prerequisite: **Introduction to Global Affairs**

PGEs: W2;RD2;S2;PS1;RF1;PRI;T;C2

EEP/HISTORY at the MOVIES—FILM STUDIES

1 credit (Grades 10-12) CP/Hn.

This is an elective course for students who are inquisitive and interested in the study of history through social media. This course will be broken up into two semester courses. The fall semester course will concentrate on the Revolutionary period to the World Wars. The spring semester course will concentrate on the Cold War period to the September 11th terrorist attacks. The course will use film to approach the history of the United States through major historical periods throughout American history. Students will explore historical topics and periods using films, outside readings, lectures, and class discussions. Students will work individually and in groups to understand the validity of films as historical sources. Finally, this is history course and as such is reading and writing intensive. It will examine the presentations and portrayals of individuals in history through the following themes: Citizenship, Race, Genocide, The Cold War, Heroism and Patriotism.

HISTORY OF SPORTS IN AMERICA

.5 credit (Grades 9-12)

What is the inner relationship that sport has on social, economic, cultural, and political forces that are at work in the United States as well as the world? This History of Sports in America examines the history of sports in the United States from the start of the 20th century to the present. You will be asked to consider how sports reflected-and in some cases, shaped-the ideas about race, ethnicity, gender, class, course traces the development of sports, exploring the ways in which spontaneous games played by Americans in the twentieth century evolved into highly formalized and popular activities-activities that now comprise a multibillion dollar industry.

PGEs: W 1 ; W2; W3; W4;RD2;S1;S2;C2

Government Path

CAMPAIGNS and ELECTIONS

.5 credit (Grades 9-12)

This course is an investigation of the nature of the campaign and election process in the United States and Rhode Island from a theoretical and a practical perspective. As such, it provides a framework for analyzing electoral politics, both now and in the future.

Law Path

YOUTH AND LAW

.5 credit* (Grades 9-10)

How does the law relate to juveniles? Youth and Law provide practical information and problem solving opportunities that allow for the survival in our law- saturated society. The course includes case studies, mock trial, role-playing, small group activities and visual analysis activities. Various community resources will also be utilized. The course will focus on the United States legal system with emphasis on criminal law and juvenile justice, individual rights and liberties, family court, torts, and consumer law. The standards from the National Standards for Civics and Government will be emphasized.

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

INTRODUCTION TO CRIMINAL LAW

.5 credit* (Grades 10-12)

What are the roles and responsibilities of citizens and government in a democratic government? This course is an overview of the American Criminal Justice System that includes the types and classes of crime, the functions of the police, courts, and corrections and the ethical standards in the related fields. This course will provide a foundation for future study in the areas of law, safety, security, government and public administration. This is the first course in a three-year sequence for the pathway of Law, Public Safety and Security. Successful completion of the pathway leads to college credit. The standards from the National Standards for Civics and Government will be emphasized.

Prerequisite: Youth and Law

PGEs: W2;RD2;S2;PS1;RF1;PR1;T;C2

INTRODUCTION TO MUNICIPAL LAW

.5 credit* (Grades 10-12)

What is the nature of municipal institutions and their role in the civic "legislative process"? What ordinances govern land use and land development, and municipal liability? What is the extent of the jurisdiction of municipalities? How are various personnel issues and aspects of litigation that are specific to municipalities handled? This is an introductory course covers the daily aspects of the practice of municipal law in throughout Rhode Island. Topics that will be covered include: home rule Charters; tort immunity for political subdivisions; the relationship between state and local government; Open Records & Open Meetings Act, municipal litigation (including appropriations, civil rights, and other typical conflicts); ethics; local land use, zoning, and municipal legislation.

Prerequisite: Youth and Law and Introduction to Criminal Law



APPLY TO ATTEND PONAGANSET HIGH SCHOOL

Visual Arts Pathway

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.



PATHWAY COURSES:

- Foundations of Drawing
- Foundations of 2D Design
- Studio Art
- Graphic Design
- Intro to Art - EEP*
- Studio 2
- Studio Honors
- Digital Media
- Photography 1 & 2
- AP Studio Art: Drawing or Design*

OPTIONAL COURSES:

- Art History
- Ceramics 1 & 2
- Ceramics Honors
- Foundations of 3D Design
- Yearbook Publishing

CERTIFICATIONS:

- NOCTI

*College credit available

Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning? Do you want the opportunity to earn college credit and/or industry certifications?

The Visual/Studio Arts Pathway allows students to investigate careers in creative industries as they study the elements and principles of design. Students engage in activities that focus on advanced drawing and design skills as well as idea development techniques. All projects are aimed at creating an individualized portfolio for each student that highlights both the breadth and depth of their knowledge.

Students in this pathway learn how to combine the technical skills they learn with visual problem solving techniques in order to create unique and personalized imagery. Students explore artists throughout history while interacting with leading professionals in the creative industry. They also learn essential skills in writing and speaking about art.

Apply to attend Ponaganset by visiting our website at www.fg.k12.ri.us/apply. You may also email admissions@pshschools.com

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Career Opportunities in Visual Arts:

- Product Design for leading toy manufacturers
- Industrial Design for health care facilities
- Illustrator for packaging and card distributors
- Graphic Design for logo and web design
- Photographer for cutting edge magazines

Cutting-Edge Equipment:

- Final Cut Pro
- Adobe Suite
- Epson Color Printers
- Nikon DSLR Cameras
- Darkroom
- Negative & Image Scanners

Major Projects/Activities:

- Pattern and Movement Design
- Painting with Light (Photography)
- Still Life Painting
- Charcoal Drawing
- Fable Reillustration
- Relief Printmaking
- CD Cover Design
- Expressive Portraiture
- My First Selfie (Pinhole Camera)



Start here. Go big!® Apply online www.fg.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857 401-710-7579

Visual Arts Pathway

The future belongs to those who think creatively. Creativity is the foundation of art and art education. The goal of the Art Department at Ponaganset High School is to provide an environment where the student can discover their creativity and to channel it into innovative thinking and talented problem solving. We are dedicated to creating visually literate students and to actively engage them in problem solving through the creative processes. Our art courses provide students with the knowledge and skills necessary to respond to an ever changing world in the aesthetic realm that will prepare them for higher education and lifetime appreciation and understanding of the visual arts.

CERAMICS I .5 credit (Grades 10-12)

What are the fundamental tools and techniques used to create ceramic arts? Using earthenware clay, students will become familiar with the basics of hand building while learning about the elements and principles of visual design. We will explore a range of construction, surface design, and glazing techniques on both functional and sculptural forms. The history of ceramics, ceramics of various cultures, and contemporary ceramic artists will also be important subjects in this course. Students taking this course will experience what it is like to work in a real ceramics studio. Maintenance of the studio, class preparation, project creation, personal responsibility and peer cooperation are integral to the course.
PGEs: RD2;S2;PS1;PR1;W3

CERAMICS II .5 credit (Grades 10-12)

What techniques and skills are needed to create more refined and creative ceramic works of art? How can I express myself through ceramic arts? This course is a continued study of ceramic techniques with a greater emphasis on artistic expression through clay. Hand building techniques will continue to be emphasized while wheel throwing, extruder, and advanced glazing techniques will also be introduced. Research into the ceramics of other cultures and contemporary artists will be required.
PGEs: RD2;S2;PS1;PR1;W3

CERAMICS HONORS 1 credit

(Grades 11&12)

Where do working artists find inspiration? How does an artist maintain focus and skilled execution while still creating fresh, new works of art? This course is an advanced ceramic experience that will help students develop a fine arts portfolio or prepare them for AP Studio Art: 3D. Students will be required to critique each other's work upon completion and participate in conceptual discussions frequently. An oral presentation, research paper, and significant work outside of class will be expected. Students will be responsible for exhibiting their best work as a capstone project.
PGEs: RD2;S2;PS1;PR1;W3;T;S1

PHOTOGRAPHY I .5 credit (Grades 10-12)

How does photography work, and how can you capture memorable images? What tools do you need to take a good photograph? Students will explore the science behind exposure in photography, and develop skills in camera and darkroom techniques. Students will have a hands on experience of the history of photography by creating traditional darkroom photograms and building their own cameras. Students will transition to the digital realm applying knowledge of camera operations to learning how to use a DSLR. Emphasis will be on understanding camera controls and what makes a good photographic composition. Students will learn technical information and vocabulary while examining the underlying concepts of this expressive medium.
PGEs: RD2;PS1;PR1;T

PHOTOGRAPHY II .5 credit (Grades 10-12)

How can a better understanding of photography and creative use of camera controls increase your creative potential? How can you manipulate an image to make it better? Students will build upon their knowledge/skills learned in Photography 1 regarding creative camera controls and further their understanding of white balance and ISO settings. Students will learn how to edit, color correct, manipulate and prepare digital images for print. Students will learn technical information and vocabulary regarding digital photography while studying the underlying concepts of this expressive medium.
PGEs: RD2;S2;PS1;PR1;W3;T

PHOTOGRAPHY III .5 credit (Grades 11-12)

How can you manipulate a photograph to make it great? What tools do you need to create great photographs? How do professional photographers make great photographs? Students will build upon knowledge/skills learned in Photography 2. Students will explore advanced imaging techniques, and develop higher-level creative skills in digital imaging. Students will explore how to do traditional darkroom techniques digitally, and emulate and research the style of established photographers and photography occupations.
PGEs: RD2;S2;PS1;PR1;W3;T

FOUNDATIONS in ART DRAWING .5 credit (Grades 9-12)

What makes drawing a fundamental art form? Students work with pencil, charcoal, pastel, and other media to learn the technical, observational, and creative skills needed to render the observed world on paper. They will learn to write and reflect upon the process and outcome of their art making experiences as well as learn to write a traditional critique of a work of art. In conjunction with Foundations of 2-D Design, this course helps to provide the necessary beginning to our Visual Arts pathway at PHS.

PGEs: RD2;S2;PS1;PR1;WI

YEARBOOK PUBLISHING

1 credit (Grades 10-12)

What are the fundamental tools and techniques of visual art and art making? How do artists communicate using a visual language? How does a Design TEAM work together to create ONE final artistic product?

Students will learn the history, purpose, content, structure, materials and production process of the annual PHS yearbook, the *Tomahawk*. Focus of instruction will be layout design, typography, copywriting, digital photography, thematic development, organizational planning, and fundraising, as well as meeting deadlines, working in teams and developing leadership skills. Students will use state-of-the-art publishing techniques, digital cameras, and scanners, and learn the most current publishing terms and methods. Commitment and responsibility to the group and to the real-world job at hand is expected. Yearbook students are encouraged to work additional hours to meet deadlines and during deadlines and fundraising activities.

PGEs: RD2;S2;PS1;PR1; T

ADVANCED YEARBOOK PUBLISHING

1 credit (Grades 11-12)

What are the fundamental tools and techniques of visual art and art making? How do artists communicate using a visual language? How does a Design TEAM work together to create one final artistic product? Students will learn how to take a leadership role within the yearbook staff. Students will build upon the skills previously acquired in Yearbook Publishing through this individually tailored curriculum. Yearbook students are encouraged to commit to a minimum of one hour a week after school and additional hours during deadlines and fundraising activities. **Prerequisite:** Yearbook Publishing

PGEs: RD2;S2;PS1;PR1; T

GRAPHIC DESIGN

1 credit (Grades 10-12)

How do students develop and refine solutions through the creative process? How do students communicate using a visual language? Students will explore the art of visual communication through two dimensional design. Students will learn the elements and principles of design, careers in graphic design, the psychology of advertising, and the design-to-production process. Beginning projects will be created by hand using a variety of media with the goal of generating personal

style, problem solving and creative brainstorming. Students will learn how to design visual media on a computer using Adobe Photoshop. Emphasis of student work will be on the creative organization of space using type and the visual image. The culmination of the course will emphasize different forms of digital based design from illustration, package design and web based media. **PGEs:** RD2;S2;PS1;PR1;T

DIGITAL MEDIA 1credit (Grades 10-12)

How do students use digital media to communicate ideas visually? How do artists create art digitally? Students in this course will have a hands-on experience using current technology to create art and design in the digital realm. Students will study key elements of digital media such as graphics, web design, animation and video production. Students will use their creativity, artistic knowledge and skills to create effective multi-media presentations using the Adobe Creative Suite. The knowledge and skills acquired in this class will enable students to successfully perform and interact in today's technology-driven society.

Visual Arts Pathways Prerequisite: Foundations in Art: 2-D, Foundations in Art: Drawing

PGEs: RD2;S2;PS1;PR1;T

STUDIO ART I 1credit (Grades 10-12)

How can I refine my fundamental skills and techniques to better communicate my ideas? How can I increase my creative potential? Students will build upon skills acquired in the Foundations program as they explore the elements and principles of art and how they relate to a variety of different art processes. Content will include: painting, printmaking, and collage with a strong focus on drawing and composition. Students will become familiar with the work habits and skills necessary to be successful in advanced studio classes while starting a fine art portfolio. Projects are given with the expectation that students will follow directions and arrive at their own creative solutions. Students will explore art history as well as the work of contemporary artists. Following the Foundations courses, this course provides the necessary core to our Visual Arts Pathway at PHS.

Visual Arts Pathway Prerequisites: Successful completion of Foundations in Drawing or 2-D/3-D Design

PGEs: RD2;S2;PS1;PR1;T

STUDIO ART II 1credit (Grades 11-12)

How can I refine my fundamental skills and techniques to better communicate my ideas? How can I increase my creative potential? Students will build upon skills learned in Studio I with emphasis on advanced drawing skills as well as composition development and idea development techniques. They will be responsible for all parts of class preparation, project creation, as well as the necessary cleanup of the studio. Students will create a range of art works focusing on the elements and principles of visual design as they continue to develop a fine arts portfolio. Projects are given with the expectation that students will follow directions and arrive at their own creative solutions. This advanced level course is part of the Visual Arts Pathway.

Visual Arts Pathway prerequisite: Studio Art I

PGEs: RD2;S2;PS1;PR1;T

HONORS STUDIO ART

1 credit (Grades 11-12) Hn.

Where do working artists find inspiration? How does an artist maintain focus and skilled execution while still creating fresh, new works of art? This course is an advanced studio experience that will help students create a fine arts portfolio or prepare them for AP Studio Art. Students can choose between a focus in 2D Design or Drawing. Students will be required to critique each other's work upon completion and participate in conceptual discussions frequently. An oral presentation, research paper, and significant work outside of class will be expected. Students will be responsible for exhibiting their best work as a capstone project. **Visual Arts Pathway prerequisite:** Studio Art I

PGEs: RD2;S2;PSI;PRI;T

AP STUDIO ART

1 credit (Grades 11-12) Hn.

Where do working artists find inspiration? How does an artist maintain focus and skilled execution while still creating fresh, new works of art? Students will prepare a portfolio of work that corresponds with the expectations of the College Board AP Program. This advanced studio experience will build on the thematic vision of the student and culminate in the completion of the portfolio exam in May. Students can choose between a focus in 2D Design, Drawing, or 3D Design (including but not limited to Ceramics). Students will be required to critique each other's work upon completion and participate in conceptual discussions frequently. An oral presentation, research paper, and significant work outside of class will be expected. Students will be responsible for exhibiting their best work as a capstone project.

Visual Arts Pathway prerequisite: Studio Art I

PGEs: RD2;S2;PSI;PRI;T

EEP STUDIO ART

(Early Enrollment Program) 1 credit (Grades 11-12)

What are the qualities of a strong visual arts portfolio? How does an artist maintain focus and skilled execution while still creating fresh, new works of art? This course is a Rhode Island College-Ponaganset High School partnership that offers students the opportunity to earn four college credits while completing high school graduation requirements. ART 150 EEP offers an advanced study of visual arts presented in a studio format, where students will develop their artwork through an investigation of a variety of traditional and contemporary methods and procedures. Students will engage in aesthetic analyses of art styles and history in order to further develop their own individual work. Second semester coursework will build on the thematic vision of the student and culminate in the presentation of a fine arts portfolio. An oral presentation, research paper, and significant work outside of class will be expected. Students may also receive AP credit for this course - see AP Studio Art description. **Visual Arts Pathway prerequisite:** Studio Art I

PGEs: RD2;S2;PSI;PRI;T



APPLY TO ATTEND PONAGANSET HIGH SCHOOL Music & Performing Arts Pathways

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.



PATHWAY COURSES:

Music Education/Performance

- Concert Band or Honors Instrumental Ensemble HV or
- Concert Chorus or Honors Vocal Ensemble HV
- EEP Music History
- AP/EEP Music History

Music Technology

- Concert Band or Honors Instrumental Ensemble HV or
- Concert Chorus or Honors Vocal Ensemble HV
- EEP Music Technology HV

Other Related Courses

- Music Theory HV
- Piano
- Guitar

Through longstanding articulations with Rhode Island College's highly respected Music, Theatre, and Arts Department, a student could graduate with a total of eight or nine college credits, depending upon the pathway chosen.

Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning? Do you want the opportunity to earn college credit and/or industry certifications?

The Music & Performing Arts Academy features two pathways for students to choose from:

The Music Education/Performance Pathway is designed for students interested in a career in music performance or music education. Each of these pathways allows students to focus on either a vocal or an instrumental track. Students will also take courses including Music History and Music Theory.

The Music Technology Pathway is tailored for students who aspire to enter industries like radio, movie, and television production, as well as video game audio. Students will take three sequential Music Technology courses and may also take Piano and Guitar.

Students in each pathway have the opportunity to perfect their craft at musical performance, while simultaneously preparing them for careers in the music and performing arts industry. All students will participate in Concert Band / Instrumental Ensemble or the Chorus / Vocal Ensemble.

Apply to attend Ponaganset by visiting our website at www.fg.k12.ri.us/apply. You may also call 401-710-7599 or email admissions@pschools.com.

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Cutting-Edge Equipment:

- Music Tech Lab with full Pro Tools rigs, the industry standard software platform in the recording, film, and video game industries.
- New instruments including full concert percussion, tubas, bassoons, contra-bass clarinet, etc.

Major Projects/Activities:

- Performances at state and national/international music festivals.
- Digital audio recording, editing and production, sequencing, looping, composing, and sound design/effects for radio, television, film, computer games, multimedia presentations and web sites.



Start here. Go big!® Apply online www.fg.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857 401-710-7579

Music and Performing Arts Pathway

We believe that our purpose is to help students achieve their musical potential and to test the limits of that potential in hopes that, as a result, the students' lives will be as full and rich as possible. One of the most fundamental and generally accepted purposes of education has always been to transmit the cultural heritage of a group to succeeding generations and it is our hope to fulfill this purpose regarding the art of music. We are now surrounded by trivial music every day. We hope to increase the satisfaction that students derive from music by enabling them to understand and enjoy more sophisticated and more complex music. Music teaches us to cope with the subjective. Music is not simply black and white nor is it comprised of ones and zeros. Music is different from the other basic disciplines in that it does not reflect a preoccupation with right answers. It tolerates and accommodates the ambiguities with which life is filled. In this respect music is more like life itself than are the other, more objective, disciplines. Music brings balance to the curriculum. Every student should have a chance to genuinely succeed in something. As we work with our students it is important to remember that for some students music is what makes school tolerable. It must be a place where their talents are appreciated, their contributions respected, and their achievements valued. We believe that music exalts the human spirit and transforms the human experience. It represents one of the most basic instincts in human beings, and as such has played an important role in every known civilization. We must not limit access to music knowledge and skills to an elite few but make them available to everyone to appreciate and enjoy.

CONCERT BAND I 1 credit

How can performing in Concert Band help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? Concert Band-I helps students develop technique for playing brass, woodwinds, and percussion instruments and cover a variety of band literature styles, primarily for concert performances. All Band classes are full year courses open to students from all grade levels. Concert Band is a large instrumental ensemble which performs at concerts, parades, and festivals as required. Repertoire performed is an overview of the concert band literature covering the main periods of music history. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group are also required. This is a year-long performance class that requires participation in performances.

PGEs: RD2; PSI; RF1; S1

CONCERT BAND II 1 credit

How can performing in Concert Band help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? Concert Band-II continues in helping students to further develop technique for playing brass, woodwinds, and percussion instruments and cover a variety of band literature styles, primarily for concert performances. All Band classes are full year courses open to students from all grade levels. Concert Band is a large instrumental ensemble which performs at concerts, parades, and festivals as required. Repertoire performed is an overview of the concert band literature covering the main periods of music history. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group are also required. This is a year-long performance class that requires participation in performances.

PGEs: RD2; PSI; RF1; S1

CONCERT BAND III 1 credit

How can performing in Concert Band help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? Concert Band-III continues in helping students to further develop technique for playing brass, woodwinds, and percussion instruments and cover a variety of band literature styles, primarily for concert performances. All Band classes are full year courses open to students from all grade levels. Concert Band is a large instrumental ensemble which performs at concerts, parades, and festivals as required. Repertoire performed is an overview of the concert band literature covering the main periods of music history. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group are also required. This is a year-long performance class that requires participation in performances. PGEs: RD2; PSI; RF1; S1

CONCERT BAND IV 1 credit

How can performing in Concert Band help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? Concert Band-IV continues in helping students to further develop technique for playing brass, woodwinds, and percussion instruments and cover a variety of band literature styles, primarily for concert performances. All Band classes are full year courses open to students from all grade levels. Concert Band is a large instrumental ensemble which performs at concerts, parades, and festivals as required. Repertoire performed is an overview of the concert band literature covering the main periods of music history. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group are also required. This is a year-long performance class that requires participation in performances. PGEs: RD2; PSI; RF1; S1

INSTRUMENTAL ENSEMBLE ^{1 credit}

How can performing in Instrumental Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives?

Instrumental Ensemble-I is intended to develop students' technique for playing brass, woodwind, percussion, and/or string instruments in small ensemble groups. Instrumental Ensemble courses cover one or more instrumental ensemble or band literature styles. This is a full year, honors level course open to students from all grade levels by audition only. Wind Ensemble is a select group for the most advanced performer. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Wind Ensemble. All Wind Ensemble members are automatically also members of Concert Band. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group is required. Private instruction is strongly encouraged. This is a year-long performance class that requires participation in performances. **Audition only**

PGEs: RD2; PS1; RF1; S1

INSTRUMENTAL ENSEMBLE II

^{1 credit}

How can performing in Instrumental Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives?

Instrumental Ensemble-II is intended to further develop students' technique for playing brass, woodwind, percussion, and/or string instruments in small ensemble groups. Instrumental Ensemble courses cover one or more instrumental ensemble or band literature styles. This is a full year, honors level course open to students from all grade levels by audition only. Wind Ensemble is a select group for the most advanced performer. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Wind Ensemble. All Wind Ensemble members are automatically also members of Concert Band. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group is required. Private instruction is strongly encouraged. This is a year-long performance class that requires participation in performances. **Audition only**

PGEs: RD2; PS1; RF1; S1

INSTRUMENTAL ENSEMBLE III

^{1 credit}

How can performing in Instrumental Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives?

Instrumental Ensemble-III is intended to further develop students' technique for playing brass, woodwind, percussion, and/or string instruments in small ensemble groups. Instrumental Ensemble courses

cover one or more instrumental ensemble or band literature styles. This is a full year, honors level course open to students from all grade levels by audition only. Wind Ensemble is a select group for the most advanced performer. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Wind Ensemble. All Wind Ensemble members are automatically also members of Concert Band. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group is required. Private instruction is strongly encouraged. This is a year-long performance class that requires participation in performances. **Audition only**

PGEs: RD2; PS1; RF1; S1

INSTRUMENTAL ENSEMBLE IV

^{1 credit}

How can performing in Instrumental Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives?

Instrumental Ensemble-IV is intended to further develop students' technique for playing brass, woodwind, percussion, and/or string instruments in small ensemble groups. Instrumental Ensemble courses cover one or more instrumental ensemble or band literature styles. This is a full year, honors level course open to students from all grade levels by audition only. Wind Ensemble is a select group for the most advanced performer. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Wind Ensemble. All Wind Ensemble members are automatically also members of Concert Band. A two and one half hour weekly evening rehearsal is required and is considered part of the class. Commitment and responsibility to the group is required. Private instruction is strongly encouraged. This is a year-long performance class that requires participation in performances. **Audition only**

PGEs: RD2; PS1; RF1; S1

MUSIC APPRECIATION

^{.5 credit (All Grades)}

As human beings, what is the importance of music in our lives? Similar in nature to Music History/Appreciation courses, Music Appreciation courses focus specifically on students' appreciation of music. They are designed to help students explore the world of music and to develop an understanding of the importance of music in their lives. According to the Webster's Dictionary, *appreciation* in regards to the arts has to do with a sensitive awareness. In this half year course, which can also serve as an Introduction to Music, students will be educated in the basic fundamentals of music and how to be aware of them in the music of today's and yesterday's world.

Students do not need to have any musical background or experience to succeed in this class. All students must have a general interest in the subject and a desire to learn.

PGEs: RD2; RF1; S1, TI

MUSIC TECHNOLOGY I

.5 credit (All Grades)

How can technological skills be used to make or refine music or audio elements? Music Technology encompasses digital audio recording, editing, and production, sequencing, looping, composing, and sound design/effects for radio, television, film, computer games, multimedia presentations and web sites. This course will explore sound production, recording and transmission, electronic music composition and arranging, live audio reinforcement, multi-track studio recording, editing, mixing and mastering. There will also be an examination of current legal and ethical issues regarding digital music and the recording industry. The activities in this class will provide students with a foundation in the materials and techniques of current music technology while pointing towards real-life applications and curriculum-related career paths. Instruction will be a combination of lecture, hands-on exploration and creating, guided individual and group projects, and supplemental reading assignments.

PGEs: RD2; RF1; S1, TI

MUSIC TECHNOLOGY II

.5 credit (All Grades)

How can technological skills be used to make or refine music or audio elements? Music Technology encompasses digital audio recording, editing, and production, sequencing, looping, composing, and sound design/effects for radio, television, film, computer games, multimedia presentations and web sites. This course will serve as an extension and continuation of Music Technology I and will, in further depth, explore sound production, recording and transmission, electronic music composition and arranging, live audio reinforcement, multi-track studio recording, editing, mixing and mastering. Drawing on experience gained in Music Technology I, this course will be almost exclusively project based and will deal with real-life applications and curriculum-related career paths. Some possible projects would be creating radio jingles and commercials, film scoring, and using music/audio in multimedia and web design.

Prerequisite: Music Technology I **PGEs:** RD2; RF1; S1, TI

EEP MUSIC TECHNOLOGY I

.5 credit (All Grades)

How can technological skills be used to make or refine music or audio elements? EEP Music Technology I encompasses digital audio recording, editing, and production, sequencing, looping, composing, and sound design/effects for radio, television, film, computer games, multimedia presentations and web sites. This course will explore sound production, recording and transmission, electronic music composition and arranging, live audio reinforcement, multi-track studio recording, editing, mixing and mastering. There will also be an examination of current legal and ethical issues regarding digital music and the recording industry. The activities in this class will provide students with a foundation in the materials and techniques of current music technology while pointing towards real-life applications and curriculum-related career paths. Instructions will be a combination of lecture, hands-on exploration and creating, guided individual and group projects, and supplemental reading assignments. There are no pre-requisites for this class, students can earn three college credits and considerable time and energy must be expended to succeed. This course is a Ponaganset High School-Rhode Island College partnership that offers students an opportunity to earn three college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP Music History classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College. The ability to read music is not required.

PGEs: RD2; RF1; S1, TI

EEP MUSIC TECHNOLOGY II

.5 credit (All Grades)

How can technological skills be used to make or refine music or audio elements? EEP Music Technology II encompasses digital audio recording, editing, and production, sequencing, looping, composing, and sound design/effects for radio, television, film, computer games, multimedia presentations and web sites. This course will serve as an extension and continuation of Music Technology I and will, in further depth, explore sound production, recording and transmission, electronic music composition and arranging, live audio reinforcement, multi-track studio recording, editing, mixing and mastering. Drawing on experience

gained in Music Technology I, this course will be almost exclusively project based and will deal with real-life applications and curriculum- related career paths. Some possible projects would be creating radio jingles and commercials, film scoring, and using music/audio in multimedia and web design. This is a college level course that can earn the successful student three college credits and considerable time and energy must be expended to succeed. This course is a Ponaganset High School-Rhode Island College partnership that offers students an opportunity to earn three college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College. The ability to read music is not required.

Prerequisite: EEP Music Technology I

PGEs: RD2; RF1; S1, T1

EEP MUSIC TECHNOLOGY III/ DIGITAL GAME DESIGN

.5 credit (Grades 10-12)

How can technological skills be used to make or refine music or audio elements? Designing game/training audio requires a broad understanding of tools and techniques. This course will review some common techniques for creating and implementing game audio. The students will be involved in recording, editing, and processing dialogue, the use of Foley as a design technique to create a sense of realism by emphasizing small details, and using sound effects to create excitement. Techniques for designing an immersive background of ambient sounds to bring the game or training world to life will be explored and students will be introduced to basic game music concepts and techniques for creating an interactive musical score that follows the action. We will also look at techniques for recording, editing, and implementing convincing vehicle sounds. In the final segment of the course we will bring all of the elements together to create audio for a cinematic production, exploring cinematic postproduction techniques, including advanced editing and mixing. This course will be project oriented. Each segment of the course will include hands-on “walkthrough” projects to reinforce concepts and techniques as they are being used. In addition, at the end of each segment, the students will have a second chance to work through the materials learned in that segment by completing a second project in a new and different game environment. This is a college level course that can earn the successful student three college credits (PENDING RHODE ISLAND COLLEGE APPROVAL) and considerable time and energy must be expended to succeed. This course is a Ponaganset High School-Rhode Island College partnership that offers seniors an opportunity to earn three college credits while

completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College. The ability to read music is not required. **Prerequisite:** EEP Music Technology II

PGEs: RD2; RF1; S1, T1

CHORUS

CHORUS I .5 credit/1 credit

How can performing in Chorus help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? Chorus courses provide the opportunity to sing a variety of choral literature styles for Men’s and/or Women’s voices and are designed to develop vocal techniques and the ability to sing parts. This course open to students from all grade levels. Chorus is a large vocal ensemble which performs several times a year. Repertoire performed is an overview of concert vocal literature covering the main periods of music history and encompassing music representing diverse genres and cultures. Students learn sight reading techniques and proper voice use and care. Previous training in reading and singing music in not required but encouraged. Commitment and responsibility to the group is required. This is a performance class that requires participation in performances.

PGEs: RD2; PS1; RF1; S1

CHORUS II .5 credit/1 credit

How can performing in Chorus help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? This chorus course provides further opportunities to sing a variety of choral literature styles for Men’s and/or Women’s voices and is designed to further develop vocal techniques and the ability to sing parts. This course is open to students from all grade levels. Chorus is a large vocal ensemble which performs several times a year. Repertoire performed is an overview of concert vocal literature covering the main periods of music history and encompassing music representing diverse genres and cultures. Students learn sight reading techniques and proper voice use and care. Previous training in reading and singing music in not required but encouraged. Commitment and responsibility to the group is required. This is a performance class that requires participation in performances.

PGEs: RD2; PS1; RF1; S1

CHORUS III .5 credit/1 credit (Grades 11-12)

How can performing in Chorus help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? This course provides further opportunities to sing a variety of choral literature styles for Men's and/or Women's voices and is designed to further develop vocal techniques and the ability to sing parts. This course is open to students from all grade levels. Chorus is a large vocal ensemble which performs several times a year. Repertoire performed is an overview of concert vocal literature covering the main periods of music history and encompassing music representing diverse genres and cultures. Students learn sight reading techniques and proper voice use and care. Previous training in reading and singing music is not required but encouraged. Commitment and responsibility to the group is required. This is a performance class that requires participation in performances.

PGEs: RD2; PS1; RF1; S1

CHORUS IV .5 credit/1 credit (Grade 12)

How can performing in Chorus help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? This course provides further opportunities to sing a variety of choral literature styles for Men's and/or Women's voices and is designed to further develop vocal techniques and the ability to sing parts. This course is open to students from all grade levels. Chorus is a large vocal ensemble which performs several times a year. Repertoire performed is an overview of concert vocal literature covering the main periods of music history and encompassing music representing diverse genres and cultures. Students learn sight reading techniques and proper voice use and care. Previous training in reading and singing music is not required but encouraged. Commitment and responsibility to the group is required. This is a performance class that requires participation in performances.

PGEs: RD2; PS1; RF1; S1

PIANO .5 credit (Grades 9-12)

How can the study of piano improve overall musicianship? Piano Class is designed to teach the concepts and fundamentals needed to perform on the piano. It will increase musical understanding beyond just reading notes by teaching students a vocabulary of chords and keys, accompaniment patterns, and improvisational techniques. Students will play melodies in several positions and have the opportunity to participate in ensemble playing. Students will develop good practice habits, and learn techniques to increase the muscular agility and flexibility of their hands. We will delve into music at its source, find out how music is constructed, and discover the composers and history behind the music. Through the use of the MIDI Laptop Lab* students will have the opportunity

to explore music technology, and its applications to composition, arrangement, and even recording industry techniques. At the completion of this course, the student will have learned to play some of the standards of piano repertoire while gaining a thorough understanding of the history and basic concepts of music.

PGEs: RD2; PS1; RF1; S1

GUITAR .5 credit (Grades 9-12)

How can the study of guitar improve overall musicianship? Guitar 1 class is a comprehensive course where proper technique is always stressed with the intent that each student can successfully play any music that interest them now or in the future. Reading music is mandatory as it opens the written history of music to our students which then allows them to play music from any period in history. Music theory is studied and allows the student to understand musical process. Music history as it pertains to modern guitar is also covered where the people who were instrumental in developing the instrument's role in popular music are studied. At the end of the first year, students will have been introduced to scales, intervals (melodic and harmonic) and chords. Using these concepts our students will be able to play simple pieces to include duets, chord solos, and ensemble works and understand how they work, musically. We play traditional folk songs, classical music from the Baroque, Classical and Romantic periods, and rock and roll.

PGEs: RD2; PS1; RF1; S1

VOCAL ENSEMBLE 1 credit Hn.

How can performing in Vocal Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? Vocal Ensemble courses are intended to develop vocal techniques and the ability to sing parts in small ensembles or madrigal groups. Course goals may include the development of solo singing ability and may emphasize one or several ensemble literature styles. This is a full year, honors level course open to students from all grade levels. Vocal Ensemble is a select group of equal balance which will learn and perform graded literature of a higher level in order to further develop vocal musicianship. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Vocal Ensemble. Vocal Ensemble students must also participate in Chorus. Commitment and responsibility to the group are required. This is a year-long performance class that requires participation in performances.

PGEs: RD2; PS1; RF1; S1

VOCAL ENSEMBLE II 1 credit Hn.

How can performing in Vocal Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? This Vocal Ensemble course is intended to further develop vocal techniques and the ability to sing parts in small ensembles or madrigal groups. Course goals may include the development of solo singing ability and may emphasize one or several ensemble literature styles. This is a full year, honors level course open to students from all grade levels. Vocal Ensemble is a select group of equal balance which will learn and perform graded literature of a higher level in order to further develop vocal musicianship. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Vocal Ensemble. Vocal Ensemble students must also participate in Chorus. Commitment and responsibility to the group are required. This is a year-long performance class that requires participation in performances. Prerequisite: Vocal Ensemble I
PGEs: RD2; PS1; RF1; S1

VOCAL ENSEMBLE III 1 credit Hn.

How can performing in Vocal Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? This Vocal Ensemble course is intended to further develop vocal techniques and the ability to sing parts in small ensembles or madrigal groups. Course goals may include the development of solo singing ability and may emphasize one or several ensemble literature styles. This is a full year, honors level course open to students from all grade levels. Vocal Ensemble is a select group of equal balance which will learn and perform graded literature of a higher level in order to further develop vocal musicianship. The student must have achieved and maintain the level of performance commensurate with the high standards achieved by the Ponaganset High School Vocal Ensemble. Students must also participate in Chorus. Commitment and responsibility to the group are required. This is a year-long performance class that requires participation in performances. Prerequisite: Vocal Ensemble II
PGEs: RD2; PS1; RF1; S1

VOCAL ENSEMBLE IV 1 credit Hn.

How can performing in Vocal Ensemble help students achieve their musical potential and through involvement with music, enjoy fuller, richer lives? This Vocal Ensemble course is intended to further develop vocal techniques and the ability to sing parts in small ensembles or madrigal groups. Course goals may include the development of solo singing ability and may emphasize one or several ensemble literature styles. This is a full year, honors level course open to students from all grade levels. Vocal Ensemble is a select group of equal balance which will learn and perform graded literature of a higher level in order to further develop vocal musicianship. The student must have achieved and maintain the level of performance

commensurate with the high standards achieved by the Ponaganset High School Vocal Ensemble. Students must also participate in Chorus. Commitment and responsibility to the group are required. This is a year-long performance class that requires participation in performances.. Prerequisite: Vocal Ensemble III
PGEs: RD2; PS1; RF1; S1

EEP MUSIC HISTORY

.5 credit (Grades 11 -12) Hn.

As human beings, what is the importance of music in our lives? How can the enjoyment of music be increased through studying Music History? This course is basically the first half of the EEP Music History course. The successful completion of the second half, EEP Music History II, will earn you EEP credit from Rhode Island College. This course is open to 11th and 12th grade students. The aim of this course is to develop perceptive listening skills, heighten the students' love of music, and serve as an introduction in musical forms, stylistic periods and their cultural background. Composer's lives, individual styles, and representative works will be examined not merely impart facts but to stimulate curiosity and enthusiasm. The music and cultural background of the Medieval, Renaissance, Baroque, Classical, Romantic, and Twentieth Century periods will be examined. A bit of jazz, the American musical, rock, and music in non-western cultures will then be explored if time allows. This program is geared towards students who seek college level a cademia. This course is a Ponaganset High School-Rhode Island College partnership that offers students an opportunity to earn three college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP Music History classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College. Additional writing is required at various times during the course. The ability to read music is not required.

PGEs: RD2; PS1; RF1; S1

EEP MUSIC HISTORY II

.5 credit (Grades 11 -12) Hn.

As human beings, what is the importance of music in our lives? How can the enjoyment of music be increased through studying Music History? This course is basically the second half of the EEP Music History course. The successful completion of the second half, EEP Music History II, will earn you EEP credit from Rhode Island College. This course is open to 11th and 12th grade students. The aim of this course is to develop perceptive listening skills, heighten the students' love of music, and serve as an introduction in musical forms, stylistic periods and their cultural background. Composer's lives, individual styles, and representative works will be examined not merely impart facts but to stimulate curiosity and enthusiasm. The music and cultural background of the Medieval, Renaissance, Baroque, Classical, Romantic, and Twentieth Century periods will be examined.

A bit of jazz, the American musical, rock, and music in non-western cultures will then be explored if time allows. This program is geared towards students who seek college level academia. This course is a Ponaganset High School-Rhode Island College partnership that offers students an opportunity to earn three college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP Music History classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College. Additional writing is required at various times during the course. The ability to read music is not required.

PGEs: RD2; PS1; RF1; S1

MUSIC THEORY I/II/III/IV

.5 credit (Grades 9-12)

How can the study of music theory improve overall musicianship? Music Theory courses provide students with an understanding of the fundamentals of music and include one or more of the following topics: composition, arrangement, analysis, aural development, and sight reading. There are four, sequential, half year, Music Theory courses offered. Music Theory I is a basic level introduction to Music Theory. Music Theory II, III, and IV are sequential continuations or extensions of Music Theory I and will be taught concurrently, in the same class. All levels of this course deal with applied Music Theory, focusing on developing increasingly sophisticated levels of skill in reading rhythm and pitch that can be applied to vocal or instrumental performance as well as composition. In addition, any or all of the levels of this course could serve as a preparation for taking Advanced Placement Music Theory. Ear training and the theoretical aspects of music will be dealt with in an increasingly more complete and sophisticated way as the levels of the course progress. Music Theory I is open to all students and the ability to read music, while helpful, is not required.

PGEs: RD2; PS1; RF1; S1

ADVANCED/AP/EEP/MUSIC THEORY I

.5 credit (Grades 9-12) Hn.

How can the study of music theory improve overall musicianship? This is basically the first half of the AP/EEP Music Theory course. The successful completion of the second half, AP/EEP Music Theory II, will earn you AP credit and EEP credit from Rhode Island College. AP Music Theory courses are designed to be the equivalent of a first-year music theory college course as specified by the College Board. AP Music Theory develops students' understanding of musical structure and compositional procedures. It is usually intended for students who already possess performance-level skills, AP Music Theory courses extend and build upon students' knowledge of intervals, scales, chords, metric/rhythmic patterns, and the ways they interact in a composition. Musical notation, analysis, composition, and aural skills are important components of this course. To receive an AP designation on their transcript, students must take the Advance Placement exam in May. A fee is required to

take the exam. Students must commit to this by October 1. If a student elects to NOT take the exam, he/she will still receive honors credit, but will not have the AP designation on his/her transcript. In addition, this course is a Ponaganset High School-Rhode Island College partnership that offers seniors an opportunity to earn three college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP Music History classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College.

PGEs: RD2; PS1; RF1; S1; T1

ADVANCED/AP/EEP MUSIC THEORY II

.5 credit (Grades 9-12) Hn

How can the study of music theory improve overall musicianship? This is basically the second half of the AP/EEP Music Theory course. The successful completion of this course will earn you AP credit and EEP credit from Rhode Island College. AP Music Theory courses are designed to be the equivalent of a first-year music theory college course as specified by the College Board. AP Music Theory develops students' understanding of musical structure and compositional procedures. It is usually intended for students who already possess performance-level skills, AP Music Theory courses extend and build upon students' knowledge of intervals, scales, chords, metric/rhythmic patterns, and the ways they interact in a composition. Musical notation, analysis, composition, and aural skills are important components of this course. To receive an AP designation on their transcript, students must take the Advance Placement exam in May. A fee is required to take the exam. Students must commit to this by October 1. If a student elects to NOT take the exam, he/she will still receive honors credit, but will not have the AP designation on his/her transcript. In addition, this course is a Ponaganset High School-Rhode Island College partnership that offers seniors an opportunity to earn three college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to the colleges that accept Rhode Island College credits. An Early Enrollment Program (EEP) representative will explain the details to all EEP Music History classes in the fall, at which time students who choose to sign up, will register, pay a registration fee, and become non-matriculating students of Rhode Island College.

PGEs: RD2; PS1; RF1; S1; T1

FOOD and NUTRITION I

.5 credit (Grades 9-12)

What are the primary principles one must acquire in order to properly prepare foods that can positively sustain us in our daily lives? Food is a basic need in the life of every human being. Food and Nutrition I provide students with an understanding of food's role in society, instruction in how to plan nutritious meals, experience in the proper use of equipment and utensils, kitchen safety and sanitation, kitchen measurements and equivalents, and background on the nutritional needs and requirements for healthy living. This course introduces students to food and culture in countries around the world. Students will develop and understanding of personal and community health. Some classes place a heavier emphasis on the nutritional components of a balanced diet, while others concentrate on specific types of food preparation.

PGEs: RD2; S2; PS1; RF1

FOOD and NUTRITION II

.5 credit (Grades 9-12)

How can extending our learning about food and nutrition guide us both personally and professionally? Food and Nutrition II provides students with an understanding of food's role in society and to apply food science principles to enhance product development with emphasis on USDA/FDA standards, nutritional analysis and evaluation of food groups. Students will conduct research and gather, evaluate, and synthesize data as it relates to nutrition wellbeing and disease. Some classes place a heavier emphasis on the nutritional components of a balanced diet, while others concentrate on specific types of food preparation. Students will investigate the wide variety of food related career paths. **Prerequisite:** Food I

PGEs: RD2; S2; PS1; RF1

FOOD and NUTRITION III

.5 credit (Grades 10-12)

What is the knowledge and training needed for various food related careers? Food and Nutrition III helps students advance their study and training in a variety of career related fields, such as culinary, baking and pastry, food production and processing, restaurant operations, and farming. Students also advance their understanding of the nutritional needs and requirements for healthy living, as well as have opportunities for job-shadowing. **Prerequisite:** Food II

PGEs: RD2; S2; PS1; RF1

PRINCIPLES OF CHILDHOOD GROWTH and DEVELOPMENT

1 credit (grades 9-12)

How can learning about the development of human beings assist students in a wide variety of career choices, as well as help them understand themselves? This is the first year requisite course for entry into the 3-year sequence in the Childhood Development and Education Academy. Course will cover all aspects of development, and will include instruction of prenatal development, infant care skills, studies of genetic and environmental influences, nutrition for infants – 3 years, pregnancy and childbirth, pediatric care, and physical, intellectual, social and emotional development during the first year of life. Students will investigate developmental theories, brain development from conception

into childhood, how parents and caregivers can assist in promoting brain development, including issues of bonding and attachment, the importance of play, and “windows of opportunity”. Successful completion of the 3-year sequence will lead to the skills and knowledge necessary for obtaining certification in Rhode Island Early Learning Standards (RIELDS) PGEs: RD2; S2; PS1; RF1

EARLY CHILDHOOD EDUCATION

1 credit (grades 9-10-12)

What are the knowledge and skills necessary to become a successful teacher of young children? This full year course is the second in the 3-year sequence of courses required to continue the Childhood Development & Education Academy. Course will focus on continued intellectual, physical, social and emotional development of toddlers through age six, and will introduce the importance moral development in children of this age as well. Special investigative topics will include promoting reading, writing, and mathematics readiness; education needs; varies learning opportunities; nutrition and wellness; how a child's temperament and birth order influence development; identifying development delays and early intervention; observation techniques; and stress management for parents, caregivers, and children. Students will visit the NICU at Women and Infant's Hospital and investigate and analyze premature birth and its risk factors and possible consequences. **Prerequisite:** Principles of Childhood Growth and Development

PGEs: RD2; S2; PS1; RF1

INVESTIGATIONS IN CHILDHOOD DEVELOPMENT and EDUCATION

1 credit (Grades 11-12)

This course is the third in the 3-year sequence of courses required to complete the Childhood Development and Education Academy. Students will conduct varied and in-depth research into special issues of child development. Topics will include, but not be limited to: educational theory, education readiness, autism, child abuse, birth defects, family studies, children with disabilities, childhood obesity, promoting positive behavior and social interactions, active engagement in learning, self-motivation, effective communication, and further research into understanding brain and childhood development. Students will be required to participate in internships and other authentic learning experiences involving child development and education. Students will become familiar with standards of professionalism, instructional practice, the importance of the learning environment, and aspects of health and safety. Students may choose their own additional topics of research for a final project. This final course in the 3-year sequence will allow students to obtain Rhode Island Early Learning Standards (RIELDS) certification. **Prerequisite:** Early Childhood Education

SPANISH I 1 credit

Where is the Spanish language spoken and why? Why is proper pronunciation so important? How are the Spanish/Hispanic cultures different from each other and from the American culture? This course introduces students to the Spanish speaking world and its culture. Students will develop basic listening, reading, writing and speaking skills in the present tense. Topics include likes and dislikes, food and drink, sports, school, family and clothing. Spanish and Hispanic culture will be introduced through videos and reading selections. Daily dialogue in the Spanish language is expected and students will make short in-class presentations. Students are encouraged to use their new skills outside of the Spanish classroom.

PGEs: W6; RD2; S3; RF1; PR1

SPANISH II 1 credit

How do I initiate conversation in a foreign language? How do I communicate my own personal needs? This course focuses on augmenting vocabulary, acquiring new grammar skills and learning to speak in the past tense. Topics include household chores, travel, sports, shopping and daily routine. Reading, writing and speaking is more extensive and the focus is on comprehension of the written and spoken word. Students will continue their investigations into Hispanic culture through videos, research and readings from the text. Students will practice the oral language daily and refine their presentation skills in the target language.

PGEs: W6; RD2; S3; RF1; PR1

SPANISH III 1 credit

How do I express understanding or opinion after reading or listening to Spanish? How is the social life of a student living in a Hispanic country different from mine? Students continue to develop proficiency in reading, writing, listening, and speaking while focusing on processing the spoken language at a faster pace. Through videos and listening activities, students will refine their comprehension of the spoken language. During classroom presentations, students are expected to form questions and answer questions from classmates. New vocabulary will be introduced along with advanced grammar points. There will be a focus on the difference between the preterit and imperfect past tenses. Students will further explore cultures with an in-depth study of Spanish and Hispanic food and legends.

PGEs: W6; RD1; RD2; S3; RF1; PR1

SPANISH IV/EEP 1 credit* Hn.

How do I use what I have learned to create an original expression? What reading strategies can I use to find the meaning in an authentic text? How do I express understanding after reading or listening to an authentic source? The main focus in this class is on refining speaking and writing skills. Students will continue their study of grammar with an extensive look at the subjunctive tense and other fine grammar points to

improve their writing. Students will read and discuss authentic literary pieces in Spanish dealing with such topics as dream versus reality and magical realism. Students will respond to these pieces by creating both written and oral responses. Culture and history are further explored through literature and movies in the target language. Students are expected to speak Spanish every day and are encouraged to find ways to use it outside of the classroom.

Spanish IV EEP**(Early Enrollment Program)** 1 credit* Hn.

See Spanish IV description above. This course is a Rhode Island College-Ponaganset High School partnership that offers students the opportunity to earn four college credits while completing high school graduation requirements. Students may carry over the credits to Rhode Island College or transfer them to many other colleges that accept Rhode Island College credits. At the beginning of the school year, a representative of the EEP program from Rhode Island College will visit the school to explain the program details. At this time, students can decide to register and will become non-matriculating students of Rhode Island College.

PGEs: W6; RD1; RD2; S3; RF1; PR1

CHINESE I 1 credit

How is the Chinese language written? What are some ways I can use Chinese immediately? How does the Chinese culture differ from American culture? This is an introductory course in Mandarin Chinese (Putonghua), designed for students who have had no prior exposure to Chinese language. The course emphasizes basic syntax, vocabulary, written characters, and spoken tone so that students can begin to read, write, speak and understand the language on a basic level. Students learn basic sentences and expressions which can be applied to personal situations, such as common objects, places, daily activities, hobbies, etc. An introduction to Chinese culture through music, readings, and exposure to authentic products gives students an awareness of the Chinese-speaking world, its people, geography and history.

PGEs: RD2; S3; RF1; PR1

CHINESE II 1 credit

How do I initiate conversation in Chinese? How do I gain knowledge, understanding and appreciation of the Chinese language and culture through music, readings, and products? Chinese II is designed for students who have completed Chinese I. This course will continually focus on listening and speaking, communicative competencies and skills, and basic knowledge of Chinese (Mandarin) characters and character-writing techniques. Special emphasis will be placed on vocabulary building, the attainment of the ability to communicate in a variety of social situations, and the development of reading facility. More advanced grammar and idiomatic usage will be taught. Cultural awareness will be developed through enriched observation and discussion.

PGEs: RD2; S3; RF1; PR1

PRINCIPLES OF BUSINESS AND FINANCE I .5 credit

(Grades 9-12)

This course is designed to give students an overview of the business, marketing, and finance career cluster occupations. Students will develop an understanding of how academic skills in mathematics, economics, and written and oral communications are integral components of success in these occupations. Students will be introduced to the fundamental accounting principles and procedures used in business.

PGEs: W2, RD2, PS1, RF1, T1

PRINCIPLES OF BUSINESS AND FINANCE II .5 credit

(Grades 9-12)

This course is designed to build upon students' prior knowledge learned in Principles of Business I. Students will examine current events to determine their impact on business and industry and legal and ethical behavior, determine how resources should be managed to achieve company goals, and identify employability and personal skills needed to obtain a career and be successful in the workplace. As students learn about different types of business ownership, they will identify principles of business management and analyze business practices to determine ethics and social responsibilities. Prerequisite: Principles of Business

PGEs: W2, RD2, PS1, RF1, T1

SYSTEMS OF ACCOUNTING

1 credit (Grades 9-12)

What is an accounting system? In what ways do accounting interpretations impact business decisions? Why is accounting an integral process of all business activities? Students will learn the foundations of e-Commerce as a marketing, entrepreneurship, and business tool. This knowledge will provide students with an understanding of how the Internet can be used to create a brand presence, complete commercial transactions, and other important aspects of having an online business. Students will gain an understanding of the history, evolution, and transformation of online business, marketing and the Internet learn how certain technologies are employed to allow commerce to take place online, gain insight into the complexity of brand marketing and sales in a web-based world, and learn hands-on knowledge of how to build an online presence for a small business using websites, Facebook, Twitter, and other emerging social media and technologies. They will learn about the factors that influence the flow of goods and services, electronic business models, security and privacy issues, and the legal and ethical environment. Career opportunities will be investigated.

PGEs: W2, W4, RD2, SI, PS1, RF1, PRI, TI

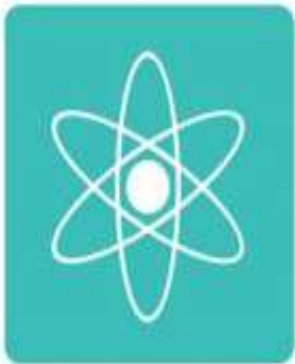
SYSTEMS OF ACCOUNTING II

1 credit (Grades 10-12)

How is the accounting cycle utilized by successful businesses? Why is it essential for successful businesses and executives to be aware of their financial situation? Increase the depth of your knowledge by building on the concepts learned in Accounting I. This course enables students to learn the rules and procedures of accounting for not only service based businesses, but also merchandising and manufacturing businesses. In addition, the "how" and "why" of accounting empowers students to keep accurate financial records which are required to produce useful business information and make wise business decisions. Students will complete advanced manual and computerized simulations to reinforce knowledge of the accounting cycle, develop and interpret financial statements, advance their business-based technology skills, and involve higher-level thinking skills.

PGEs: W2, W4, RD2, SI, PS1, RF1, MI, PRI, T1

STEM



Science • Technology • Engineering • Math

S.T.E.M.



APPLY TO ATTEND PONAGANSET HIGH SCHOOL

Animal & Plant Sciences Pathways

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.



PATHWAY COURSES:

Animal Systems Pathway

- Animal Systems I
- Animal Systems II
- Animal Systems III
- Animal Systems IV

Plant Systems Pathway

- Plant Systems I
- Plant Systems II
- Plant Systems III
- Plant Systems IV

College Credits:

- Animal Systems III

Certifications:

- Basic Canine Care and Training
- NOCTI Small Animal Science and Technology
- NOCTI Horticulture – Landscaping
- Pet CPR and First Aid

Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning? Do you want the opportunity to earn college credit and/or industry certifications?

Our pathways prepare students for successful careers in the global agriculture, food, fiber, and natural resources systems. Agricultural science education instruction is conveyed through three major components:

- Classroom/laboratory instruction, which focuses on contextual learning
- Work-based learning, which features supervised field work in agriculture and natural resources programs
- Student leadership organization (National FFA Organization)

Students can choose to follow either the Animal Systems Pathway or the Plant Systems Pathway. Both Pathways require an independent study and/or an agricultural leadership course.

Apply to attend Ponaganset by visiting our website at www.fg.k12.ri.us/apply. You may also email admissions@ponhschools.com.

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Cutting-Edge Equipment:

- Production Greenhouses
- Hydroponic & Aquaponics Systems
- Small Animal Lab
- Thrive Aquarium System
- 650 Gallon Aquaculture Recirculation System
- Outdoor Sustainability Lab

Major Projects/Activities:

- Commercial production of annual vegetables and bedding plants
- Campus landscaping projects
- Caring for small animals and ornamental fish



Start here. Go big!® Apply online www.fg.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857 401-710-7579

ANIMAL & PLANT SCIENCES PATHWAY

Agricultural Education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems. Through agricultural science education, students are provided opportunities for leadership development, personal growth and career success. Agricultural science education instruction is delivered through three major components; classroom/laboratory instruction (contextual learning), supervised agricultural experience programs (work-based learning), student leadership organizations (National FFA Organization).

ANIMAL SYSTEMS I .5 credit

ANIMAL SYSTEMS PARTHWAY I (Grades 9-12)

Did you know that agriculture is the nation's largest employer? Do you like working with animals and would be interested in learning more about them? This course is the perfect place to start! It is designed to help students explore various aspects of the animal industry by introducing them to a variety of careers and topics. Through a number of hands-on projects, students will learn about animal care and management, nutrition, digestion, reproduction, and husbandry practices.

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

WILDLIFE MANAGEMENT .5 credit

ANIMAL SYSTEMS PARTHWAY I (Grades 9-12)

Have you ever wondered what's in the woods? Are you interested in animals beyond the farm or pet store? Wildlife offers instruction in concepts in wildlife management. Students will be able to further their educational experiences in animal science and explore topics such as fish and wild life identification, laws and regulations, population dynamics studies, endangered species, wildlife habitats and management practices. Prerequisite: Introduction to Plant and Animal Systems

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

AQUACULTURE .5 credit (Grades 9-12)

Have you ever heard of fish farming? Did you know that it's one of the fastest growing segments of agriculture? This course explores aquaculture; the commercial production of fish and other aquatic species. The topics covered include anatomy and physiology of aquatic species, aquatic systems, production methods, harvesting, marketing and aquaponics. Students will also gain hands-on experience in water quality and system management by maintaining the classroom tanks and raising ornamental fish. Prerequisite: Introduction to Plant and Animal Systems

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

ANIMAL SYSTEMS II 1 credit

Do you enjoy helping animals? Have you thought about a career in the animal or veterinary field? Would you like to begin developing the knowledge and skills you will need? Animal Systems II is a step in the right direction for anyone who is considering a career with animals or simply wants to learn more about them! It offers information about a variety of veterinary and animal care practices. Students will gain a deeper understanding of animals and animal health through topics such as body systems, anatomy and physiology, genetics, animal first aid, disease diagnosis, prevention and treatment. They will learn more about basic animal management practices that may be used in veterinary or animal workplace settings. Students gain hands-on experience in areas such as safety, sanitation, small animal care and handling, first aid, and office management.

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

ANIMAL SYSTEMS III 1 credit

Do you want to continue building on your knowledge of animals and earn free college credits while doing it? You can do just that by enrolling in Animal Systems III! This course is part of the Rhode Island Concurrent Enrollment Program which is a partnership between PHS and the University of Rhode Island. The curriculum is aligned with the colleges' AVS101 (Animal and Veterinary Sciences) course. Students who properly enroll in the concurrent enrollment program and successfully complete this course can earn three college credits from URI at no cost. They will explore various aspects of the animal agriculture industry with a focus on large/livestock species. Students will expand on their knowledge of anatomy, physiology, and nutrition as well as explore new topics like animal lactation, reproductive technologies, production practices and large animal husbandry. PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

ANIMAL SYSTEMS IV 1 credit

The dog is said to be “man’s best friend”, so how can we be sure we’re giving them the right care? How do they communicate with us, and what are they trying to say? How can we shape the behavior of our beloved companions? Animals Systems IV will explore these topics and others. This course is aligned to curriculum from the Continental Kennel Club as part of their Canine Care and Training Program. Students who successfully complete this course can earn a certificate in *Basic Canine Care and Training* from the CKC. This program teaches the fundamentals of care, handling, and training with a specific focus on dogs. Students will take a deeper look into animal communication and behavior and learn how to apply this understanding to training and behavior modification. **Prerequisites:** Completed Animals Systems III and Teacher Permission

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

AGRICULTURAL LEADERSHIP

1 credit

Do you see yourself in an agricultural career? Do you have a strong interest or passion for agriculture? Do you want to expand on your agriculture and/or FFA experiences? This course helps students develop necessary skills with a focus on premier leadership, personal growth, and career success. Topics include effective communication, decision making and problem solving. Students participating will work closely with the teacher to help set up and facilitate classroom projects and labs. They will also have the opportunity to explore their interest by completing advanced coursework and projects based on their specific goals. Students will develop and enhance their leadership skills and abilities demonstrated through their participation in FFA leadership activities. These include but are not limited to the state Prepared Public Speaking Contest, Extemporaneous Public Speaking, Job Interview, Proficiency Award Contest, Demonstration and Illustrated Talk contest and/or Floriculture Contest. Students will also be able to mentor and assist other students with contest preparation. *Students must obtain permission from the Department Head and Guidance Director.* Prerequisite: Completion of Animal Systems IV and Teacher Permission.

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

PLANT SYSTEMS PATHWAY

PLANT SYSTEMS I .5 credit (Grades 9-12)

Did you know that agriculture is the nation’s largest employer? Have you ever thought about all that agriculture has to offer? Do you have a “green thumb”? If so this course is the perfect place to start! It is designed to help students explore the plant systems pathway by introducing them to a variety of topics. Through a number of hands-on projects, students will learn about forestry, landscape design elements, and the foundations of horticulture. They will also learn about the global impact of crop production and explore a variety of careers within this vast industry.

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

FLORICULTURE .5 credit (Grades 9-12)

It seems like everywhere we look, we see flowers! Whether we’re at a party, the prom, a wedding, a restaurant or even in our local grocery store, flower arrangements are all around us. Are you the type of person that would enjoy creating this type of art? This course allows students to explore the floriculture component of the horticulture industry. Coursework will focus on the growth and production of flowers as well as the principles of floral design. Through hands-on instruction, students will learn how to create floral designs in a variety of styles for a number of purposes including seasons, holidays and special events. Students will gain entry level skills helpful to anyone who is considering a career in the booming floriculture industry. Prerequisite: Introduction to Plant and Animal Systems

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

PLANT SYSTEMS II 1 credit (Grades 10-12)

A little dirt, never hurt...or in this case, soil! If you’re not afraid to get your hands dirty, this is the course for you! This course focuses on greenhouse, crop, and nursery production. Students receive hands-on instruction in basic plant and soil science, plant propagation, pest control and greenhouse management. They will spend a considerable amount of time assisting in the operation of the two commercial greenhouse facilities located on campus and will work directly with a variety of annual crops. Prerequisite: Introduction to Plant and Animal Systems

PGEs: W2; RD2; S2; RF1; M1; T; PSI; PRI

PLANT SYSTEMS III 1 credit (Grades 11-12)

Are you someone who enjoys spending time outdoors? Have you ever considered a job as a forester or perhaps a landscaper? If yes, then enroll in Plant Systems III! Topics covered in this course include forest management practices, tree and shrub identification, harvesting, forest conservation practices, mapping and surveying. Coursework also includes advanced instruction in the landscape arts, basic design principles, site evaluation, landscape plant identification and selection, drawing skills, woody perennial propagation, and arboriculture and landscape establishment. The course builds upon basic horticultural principles and offers advanced instruction in those principles through practical application. Prerequisite: Plant Systems II.

PGEs: W2; RD2; S2; RF1; M1; T; PS1; PR1

PLANT SYSTEMS IV 1 credit

(Grades 11 and 12)

If you want to continue expanding your knowledge and exploring your passion for plants, then this is the course for you! This is an advanced level course which serves as an opportunity for students to expand their knowledge and expertise in a specific area of plant systems. It will allow students to develop advanced skills, explore a topic in greater detail, and focus on an area of interest (i.e. specialized greenhouse crop production, horticulture therapy, advanced plant propagation, advanced floriculture, etc.) Students must obtain permission from the Department Head and Guidance Director. Prerequisite: Plant Systems IV.

PGEs: W2; RD2; S2; RF1; M1; T; PS1; PR1

AGRICULTURAL LEADERSHIP

1 credit (Grades 10-12)

Do you see yourself in an agricultural career? Do you have a strong interest or passion for agriculture? Do you want to expand on your agriculture and/or FFA experiences? This course helps students develop necessary skills with a focus on premier leadership, personal growth, and career success. Topics include effective communication, decision making and problem solving. Students participating will work closely with the teacher to help set up and facilitate classroom projects and labs. They will also have the opportunity to explore their interest by completing advanced coursework and projects based on their specific goals. Students will develop and enhance their leadership skills and abilities demonstrated through their participation in FFA leadership activities. These include but are not limited to the state Prepared Public Speaking Contest, Extemporaneous Public Speaking, Job Interview, Proficiency Award Contest, Demonstration and Illustrated Talk contest and/or Floriculture Contest. Students will also be able to mentor and assist other students with contest preparation. Students must obtain permission from the Department Head and Guidance Director.

PGEs: W2; RD2; S2; RF1; M1; T; PS1; PR1



APPLY TO ATTEND PONAGANSET HIGH SCHOOL

Biomedical Science Pathway

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.

Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning?

The Biomedical Science Pathway allows students to investigate careers in the biomedical industry as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities that emphasize course content in the context of real-world case situations, such as investigating the death of a fictional person.

Students in this pathway examine the structures and interactions of the human body systems. Students explore the prevention, diagnosis, and treatment of various diseases, while collaborating with classmates to better understand and design solutions to offset the most pressing health challenges.

Apply to attend Ponaganset by visiting our website at www.fg.k12.ri.us/biology. You may also email pltw@ponaganset.k12.ri.us

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Cutting-Edge Equipment:

- LoggerPro
- Anatomy in Clay MANIKEN®
- Electronic Probeware
- DNA Analysis
- Digital Engineering/Imaging Lab

Major Projects/Activities:

- The "Mysterious Death of Anna Garcia" and produce an Evidence Board
- Relevant careers in the healthcare profession
- Diabetes, sickle cell anemia, heart disease, and immunology
- Skeletal, muscular, and anatomical clay models (MANIKEN®)
- Data acquisition software to monitor body functions
- Dissection of cow eyes and knee joints, sheep brains, and kidneys
- Reflex Project
- Forensic Anthropology Project

PATHWAY COURSES:

- Principles of Biomedical Science*
- Human Body Systems*
- Medical Interventions*
- Biomedical Innovation*

*These courses are affiliated with Project Lead The Way (PLTW), the leading provider of STEM education in the U.S.

Optional Courses:

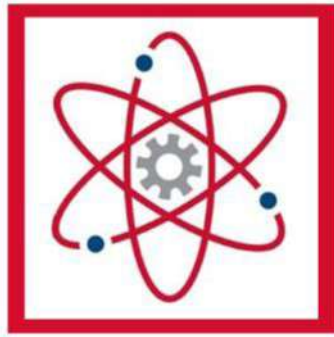
Many students elect to take AP Biology and/or Microbiology



Start here. Go big!® Apply online www.fg.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857 401-710-7579

Project Lead the Way



PLTW Pathway to Biomedical Sciences

Program Overview:

The rigorous and relevant four-course PLTW Biomedical Science sequence allows students to investigate the roles of biomedical professionals as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities like investigating the death of a fictional person, learning content in the context of real-world cases. They examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease; all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

Each course in the Biomedical Science sequence builds on the skills and knowledge students gain in the preceding courses. Schools offer the three PLTW Biomedical Science foundation courses within a period of three academic years from the start of implementation and may also offer the capstone course. Please see the Project Lead The Way website for more information. www.PLTW.org



BIOMEDICAL

Foundation Courses

- Principles of Biomedical Science
- Human Body Systems
- Medical Interventions

Capstone Course:

- Biomedical Innovation



(C) Project Lead The Way, Inc. 2014

344

PLTW PRINCIPLES OF BIOMEDICAL SCIENCE 1 credit Hn.

In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

PLTW HUMAN BODY SYSTEMS

1 credit Hn.

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

Prerequisite: PLTW Principles of Biomedical

PLTW MEDICAL INTERVENTIONS

1 credit Hn.

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

Prerequisite: PLTW Human Body Systems

Capstone Course BIOMEDICAL INNOVATION

1 credit Hn.

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution..

Prerequisite: PLTW Medical Interventions

ORIGINS AND DEVELOPMENT OF EARTH AND LIFE .5 credit

How did the Universe, stars, Earth and living things change over time? How did life create the conditions for its own success? How do organisms interact with each other and their environment? How do humans impact the environment? These are some of the essential questions in this semester course, students will

investigate the concepts of astronomy, geology, natural selection, and ecology following the chronological development of the Earth and life as we know it. Students will be engaged in practical laboratory investigations, independent and group projects, and technology-based investigations. Students will continue to engage in thinking and communicating as a scientist as they hone their skills of stating scientific claims that are supported by relevant and measurable data. This course is not intended for students who have already completed Investigations in Biology and Physical Science. **Recommended course for Biomedical Pathway**

ORIENTATION to MEDICAL IMAGING and PATIENT CARE INTERVENTIONS

(Biomedical Pathway Elective- .5 credit)
(Grades 10-12)

Topics include the history of x-rays, the technologist's role on the health care team, radiographic equipment, clinical settings and the various modalities in diagnostic imaging. Students learn communication and assessment skills, technical knowledge and patient care in the radiology setting. Students learn communication and assessment skills, technical knowledge and patient care in the radiology setting. This course will include site visits to medical imaging facilities so that students experience the equipment and uses first-hand. (Possible Dual Enrollment Course 3 Credits— approval pending)

Prerequisite: PLTW Principles of Biomedical Science or Biology

BIOINFORMATICS and DATA SCIENCE STRATEGIES

Biomedical Pathway Elective – .5credit
(Grades 10-12)

The intent of this course is to provide pre-college students interested in biology or medicine with practical experience within a biological context (how does parturition vary across animal species?) along with clinical implications (what genetic factors may influence parturition in humans?) Overarching topics include revealing genotype-phenotype correlations through the use of bioinformatics and data science strategies. More specifically, students will work on projects for advancing a specific aspect of genotype-phenotype analysis relative to parturition. Students will be encouraged to engage in projects that may also be presented at national meetings such as the AMIA Annual Symposium High School Scholars Program (HSSP). The course modules will be developed by an Assistant Professor of Medical Science at Brown University. (This course and the content are dependent on pending grant approval).

Prerequisite: PLTW Principles of Biomedical Science or Biology

BIOLOGY 1 credit*

246 COLLEGE PREPARATORY*

248 HONORS*

How has life changed over time? How do living things respond to change? This course will provide students the opportunity to investigate the concepts of homeostasis, evolution, heredity, and biodiversity while making interdisciplinary connections to earth science and chemistry. Students will utilize the scientific method and experimental techniques to investigate biogeochemical cycling, energy transformations in living things, cell structure, DNA and inheritance, natural selection, interdependence in ecosystems, and biodiversity. Students will be engaged in laboratory investigations, independent and group projects, and technology-based investigations. Students will begin to learn how scientists communicate their findings by stating scientific claims and supporting those claims with relevant data.

PGEs: PS1, T, RF, W3, W4, W5,

MICROBIOLOGY .5 credit * Grades 10-12)

How do the innumerable amounts of microorganisms impact our lives? How are we able to investigate all these microbes? In this semester course students will engage in hands-on experiences to investigate the microscopic world. Students will investigate how microorganisms impact their lives and the lives of others around the globe. Students will investigate how scientists study microbes and what are some of the diagnostic tools used to identify and classify microbes. Students will use some of these techniques as they determine why some microbes are pathogenic while others are harmless. The students will be utilizing microscopes, making and interpreting observations, designing and conducting experiments and analyzing and sharing their results.

PGEs: PS1, T, RF, W3, W4, W5, MI

**ADVANCED PLACEMENT
BIOLOGY** 1 credit* (Grades 10-12) Hn.

How do scientists establish lines of evidence and use that evidence to develop and refine testable hypotheses and predict natural phenomena? In this full year course students will answer this essential question as they study a conceptual framework for modern biology and gain an appreciation of science as a process. Students will further their learning in cellular and molecular biology, heredity and evolution, organisms and populations by not only learning about the important work of scientists, but also by performing and designing their own controlled experiments. Students will investigate core scientific principles, theories and processes that govern living organisms and biological systems, while building on the foundational concepts and skills from previous science courses. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October 1.

PGEs: PS1, T, RF, W3, W4, W5, MI

ANATOMY and PHYSIOLOGY

.5 credit*(Grades 10-12)

How does the human body self-regulate? How is the human body assembled at the cellular level as well as the organismal level? In this semester course, students will investigate how a human body functions at the cellular level as well as how the body systems coordinate to maintain homeostasis. Students will become conversant with standard anatomical terminology used in the medical field. Student will conduct laboratory investigations that include animal dissection, and the observation, measurement, and analysis of physiological processes through both hands-on and computer modeling experiences.

PGEs: PS1, T, RF, W3, W4, W5, MI

PHYSICAL SCIENCE 1 credit

224 FOUNDATIONS

226 COLLEGE PREPARATORY*

228 HONORS*

How do forces and matter interact to create and maintain balanced systems? How do scientists explore these systems and interactions? Throughout this course, students will learn concepts of physics, chemistry, astronomy and earth science will be integrated as students utilize the scientific method and experimental techniques to investigate these phenomena. Students will develop a strong knowledge base in the study of the structure and function of matter, bonding and chemical reactions, forces and motion, electromagnetic radiation, electricity and magnetism, nuclear energy, plate tectonics, and energy transformations. Students will be engaged in laboratory investigations, independent and group projects, and technology-based investigations. Students will continue to engage in thinking and communicating as a scientist by stating scientific claims that are supported by relevant and measurable data.

PGEs: PS1, T, RF, W3, W4, W5, MI

CHEMISTRY 1 credit

276 COLLEGE PREPARATORY*

278 HONORS*

How does the composition of matter change? How is energy transformed as matter changes? Students will participate in laboratory investigations as they study the basic principles underlying chemical reactions. Students will investigate the composition, properties, and reactions of various substances, behaviors of solids, liquids, and gases, acid/base reactions, and oxidation/reduction reactions. Student activities will emphasize concepts in Algebra I and II as they practice the processes used by chemists in understanding atomic theory, atomic structure, chemical formulas and chemical equations, as well as nuclear reactions.

PGEs: PS1, T, RF, W3, W4, W5, MI

ADVANCED PLACEMENT CHEMISTRY 1 credit* Hn.

How do scientists investigate the interactions and behavior of matter? How do they design experiments to test chemical phenomena? This course is designed to prepare students for the AP Chemistry exam. Student activities and investigations focus on a rigorous laboratory component that is the equivalent of a college level chemistry course. Students will be utilizing math concepts and skills learned in College Chemistry and Algebra II to solve chemistry problems in practice and in laboratory activities. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October 1.

PGEs: PSI, T, RF, W3, W4, W5, MI

EXPLORATIONS IN SCIENCE

.5 credit (Grade 11)

What is the work of scientists? How do scientists investigate and solve problems? In this semester laboratory science course, students will investigate patterns on the periodic table and how these patterns explain interactions of matter. Activities will integrate the concepts from chemistry and physics as students prepare for the NECAP Science Test. Students will engage in scientific questioning, design controlled experiments identifying controls, independent variables, and dependent variables in order to make claims and support their claims with measurable data, observations and research.

PGEs: PSI, T, RF, W3, W4, W5, MI

PHYSICS 1 credit*

What is the relationship between matter and energy? How do the laws of nature affect the motion of matter? These are two essential questions students will investigate in this full-year college preparatory laboratory course. Students will experiment and investigate the laws governing equilibrium, motion, momentum, sound, light, and electromagnetism while utilizing algebra skills and science concepts from previous science courses. Students will also develop testable explanations, design experiments and support conclusions with evidence to explain natural phenomena.

PGEs: PSI, T, RF, W3, W4, W5, MI

ADVANCED PLACEMENT PHYSICS I 1 credit* Hn.

How do scientists use Newton's Laws to explain how objects move? How do scientists use scientific principles, laws, and theories to explain the physical world? In this course students will engage in scientific questioning to extend their thinking as they establish lines of evidence and use them to develop and refine testable explanations of natural phenomena. Students will also utilize many skills and concepts learned in Geometry and Algebra as they develop a deep understanding of the content and focus on applying that knowledge through inquiry-based labs. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October 1.

PGEs: PSI, T, RF, W3, W4, W5, MI

ADVANCED PLACEMENT PHYSICS II 1 credit* Hn.

How do scientists explain changes in the natural world? How do scientists apply modern physical laws to these changes? In AP Physics II students will explore how the principles of fluids, thermodynamics, electricity, magnetism, and optics are used to further explain the behavior of matter first introduced in Physics I. Students will utilize Algebra to develop a deep understanding of the content and focus on applying that knowledge through inquiry-based labs. Students will expand upon the natural laws learned in AP Physics I to further their comprehension of the world around them. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October 1.

PGEs: PSI, T, RF, W3, W4, W5, MI

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

1 credit* Hn.

How has a growing population impact the planet? How can this impact be reduced over time? In this course students will investigate these types of essential questions while learning about the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Students will identify and analyze environmental problems both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and or preventing them. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October 1.

PGEs: PSI, T, RF, W3, W4, W5, MI

ZOOLOGY .5 credit* (Grades 10-12)

Why do organisms behave in predictable patterns? Why do groups of organisms behave in predictable patterns? In this semester course students will explore and research various organisms' behaviors. Students will make claims and explain utilizing data, how behavior relates to a species' reproductive success. Students will extend their thinking on behavior by researching specific strategies for survival such as reproductive mechanisms, caring for young, territorial and agonistic behaviors, kinship, and altruism. Students will study the evolutionary basis for animal behaviors. Students will work with scientific explanations and theories to further understand these behaviors. **NOT OFFERED 2016-2017**
PGEs: PSI, T, RF, W3, W4, W5

SCIENCE IN CONTEMPORARY SOCIETY (#SCIENCE)

.5 credit (Grades 10-12)

How does current and emerging science intersect with society? How are humans impacting the environment? How is the environment impacting humans? How can our laws keep pace with the rapid changes of scientific advancement? What are the bioethical implications of our response to a rapidly changing world including emerging diseases and a changing climate? These essential questions will drive this inquiry-based course. Students will apply scientific skills and knowledge to current events. Students will explore bioethics, systems thinking, and the interconnectedness of science and society. Students will engage in scientific questioning to extend their thinking and guide investigations as they research emerging diseases, bioethics, diet and environmental impacts, or drinking water quality as they learn more about how all this relates to extending human life on Earth.

ALTERNATIVE ENERGY and SUSTAINABLE SYSTEMS

.5 credit (Grades 10-12)

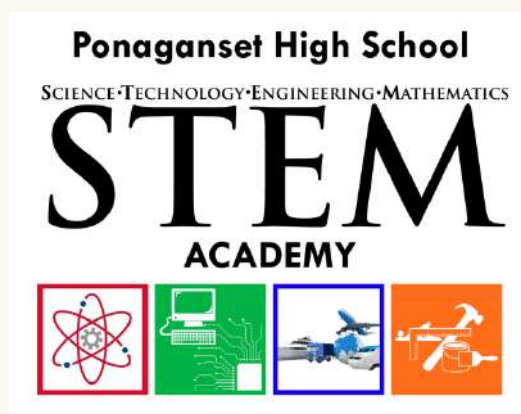
How do we meet the energy needs of the future while reducing the impact of its use on the Earth? In this semester course students will research the science, technology, politics, and social issues of alternative/renewable energy. Students will engage in lab investigations, projects, presentations, research, writing, reading, and technology-based investigations in order to learn about various types of alternative energy including hydrogen, solar, wind, water, geothermal, biodiesel, and biofuels, as well as traditional energy sources and future technologies. Students will maintain a notebook portfolio of class projects and student work and will complete performance tasks that meet digital portfolio requirements.

ALTERNATIVE ENERGY and SUSTAINABLE SYSTEMS II

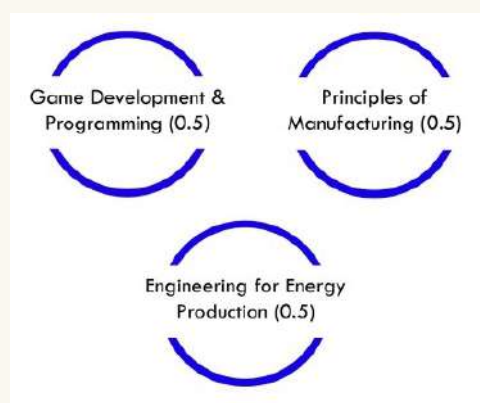
1 credit (Grades 11-12)

How do we meet the energy needs of the future while reducing the impact of its use on the Earth? This full year course students will advance their learning into the science, technology, politics, and social issues of alternative/renewable energy. Students will conduct research assignments, complete individual projects and participate on team projects. Students will participate in the hands-on operation of photovoltaic solar panels, electrolyzes, and fuel cells as well as project work including the electric vehicle, fuel cell, and biodiesel systems of the Fuel Cell Model T and Biodiesel Pickup. Students will present their findings orally, or written, or by maintaining a notebook portfolio of class projects.

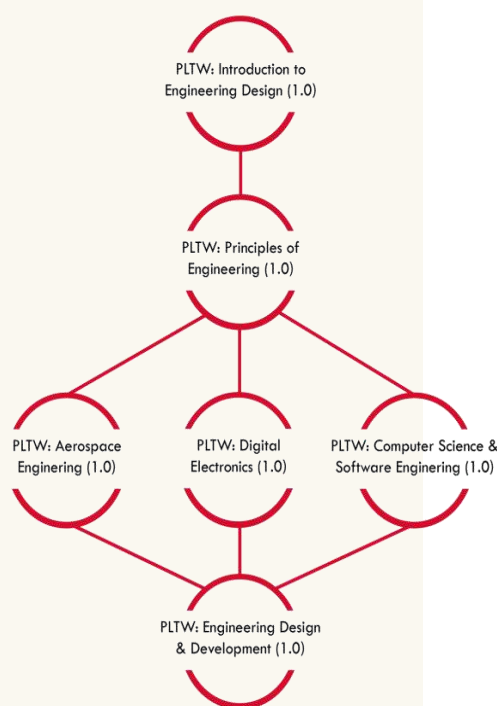
PGEs: PSI, T, RF, W3, W4, W5



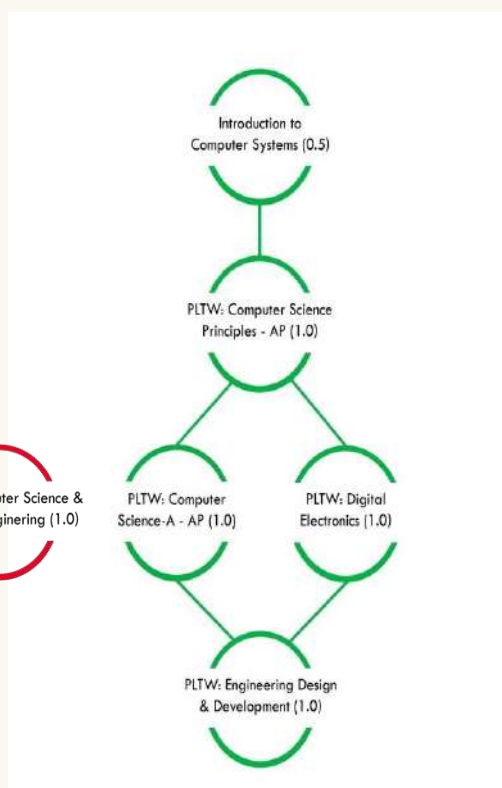
Topics in STEM



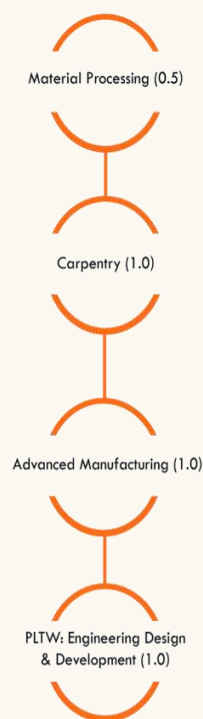
Computer Science & Information Technology

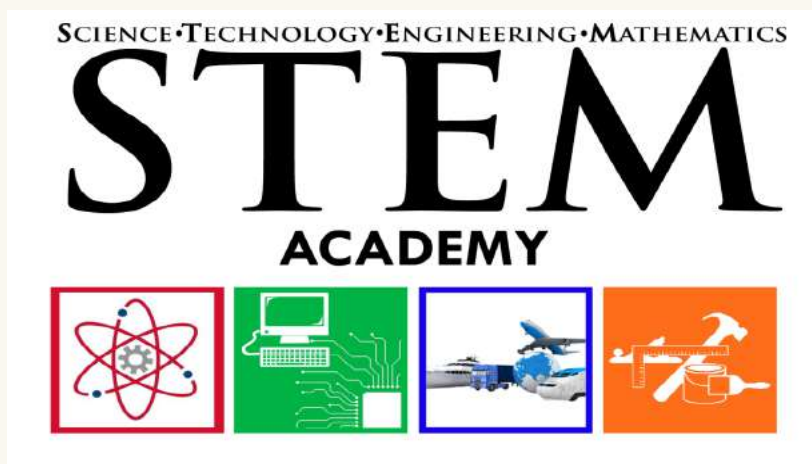


Project Lead the Way: Pathway to Engineering



Materials & Manufacturing





Mission Statement

The Science, Technology, Engineering, & Mathematics (STEM) Academy at Ponaganset High School is to help students realize their potential for success in all careers by supporting their exploration of STEM related fields, by encouraging the development of 21st century skills, and by providing them with a head start in pursuing their post-secondary education and careers.

Academy Description

Ponaganset High School STEM courses are designed so that teachers have the opportunity to provide hands-on opportunities teaching students to use Science to Engineer new Technologies and communicate through the language of Mathematics. Hence, the courses not only improve the academic component of the students' lives but also provide valuable life lessons that can be applied to solve tomorrow's problems in the real world. To help facilitate this in the student's future, we are proud to offer classes in a variety of fields. These fields include Bio-Medical Science, Agriculture, PreEngineering, Computer Science & Information Technology, and Materials & Manufacturing, and Mathematics.

STEM Students Will:

- Use advanced technology and equipment in their STEM courses.
- Investigate a wide variety of STEM related fields such as robotics, biotechnology, renewable energy, assistive technologies, pre - engineering, electronics, computer science, statics, manufacturing, 3D Printing and many more.

Design and build advanced projects.



APPLY TO ATTEND PONAGANSET HIGH SCHOOL

Computer Science & Information Technology Pathway

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.



PATHWAY COURSES:

- Computer Science Essentials*
- Computer Science Principles – AP*
- Computer Science A – AP*
- Digital Electronics*
- Engineering Design & Development (Honors)*

*Project Lead The Way (PLTW), the leading provider of STEM education in the U.S.

College Credit:
Available for 4 classes

Industry Certifications:

- NCSA PC Basics Certification
- NOCTI Computer Technology
- NOCTI Computer Programming
- AP & PLTW Recognition Credential

Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning? Do you want the opportunity to earn college credit and/or industry certifications?

The Computer Science & Information Technology Pathway emphasizes the ethical and societal implications associated with how computing and connectivity are changing the world. Collaborating with one another, students ultimately learn to create and present solutions for real world problems.

Students in this pathway gain crucial industry and practical skills through hands-on assignments. Students create mobile applications, automate tasks in a variety of languages, discern trends and patterns in data, diagnose and repair personal computers, and investigate computer networks.

Apply to attend Ponaganset by visiting our website at www.pn.k12.ri.us/apply. You may also email admission@ponaganset.k12.ri.us

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Cutting-Edge Equipment:

- MIT App Inventor
- Python
- Java
- HTML/CSS/Javascript
- Raspberry Pi
- Arduino
- Soldering
- Android Tablets
- Electronic Components
- Electronic Sensors
- Windows 10
- Mac OS X

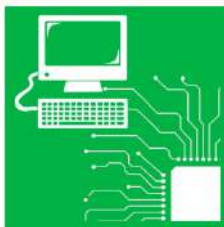
Major Projects/Activities:

- Create an App (Android, iOS, Windows & Mac)
- Create a Video Game
- Create a Website
- Create a Robot
- Create Animations and Simulations
- Solder Electronics Projects



Start here. Go big!® Apply online www.pn.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857 401-710-7579



Computer Science & Information Technology Pathway

The imperative to increase our national talent pool in computer science and information technology is clear. In fact, the number of job openings projected in 2018 for STEM fields will reach 2.8 million, and approximately half of these will be for computer specialists. To reverse this trend, build student interest and engagement in computer science, and prepare more students for great career opportunities requiring computational thinking, Ponaganset High School offers a four-year computer science pathway. In the program students create apps for mobile devices, automate tasks in a variety of languages, find patterns in data, diagnose and repair PCs, and investigate computer networks. Students collaborate to create and present solutions that can improve people's lives, and weigh the ethical and societal issues of how computing and connectivity are changing the world.

PLTW COMPUTER SCIENCE ESSENTIALS

.5 credit/1credit

(Grades 9-12; Course I in Pathway)

How does computing impact society? Do you like to: collaborate to create mobile apps; solve problems and create value for others through innovation and creativity; and explore how innovations in computing impact and connect our world? With a gentle introduction to programming, you will learn how to put your designs into practice. Whether these are your first steps in computer science, or a continuation of your journey, Computer Science Essentials will give you confidence to succeed today and beyond. This course is an excellent entry point for new high school computer science (CS) learners, and students who have prior CS experiences will find ample opportunity to expand upon those experiences in this course. All students who take CS Essentials will have many opportunities for creative expression and exploration in topics of personal interest, whether it be through app development, web design, or connecting computing with the physical world. CS Essentials is designed with strong connections to the Computer Science K12 Frameworks (CS K12), the Computer Science Teachers Association K-12 Computer Science (CSTA K-12 CS) Level 3A Standards, and the Advanced Placement Computer Science Principles (AP CSP) Frameworks. Though CS Essentials is not an instance of the AP Computer Science Principles course (CSP), it will boost student success for those who continue in CS courses.

PGEs: RD2, PS1, RF1, M1, PR1

PLTW COMPUTER SCIENCE PRINCIPLES-AP

1 credit Hn. (Prerequisite PLTW
Computer Science Essentials)

How do programmers approach a complicated problem? What role does creativity play in algorithmic programming? What makes for a good software development process? Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. CSP helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, robotics, video game design, and simulation. The course curriculum is a College Board-approved implementation of AP CS Principles and aligns with CSTA 3B standards. Students will have the opportunity to take College Board's AP Computer Science Principles Exam AND NOCTI Computer Technology Exam.

PGEs: RD2, PS1, RF1, M1, PR1

PLTW/AP COMPUTER

SCIENCE A 1 credit Hn.

What elements make a well-designed user-interface? What advantages are there to using a low-level programming language? How are computers changing the world? CSA focuses on further developing computational thinking skills through the medium of Android™ App development for mobile platforms. The course utilizes industry-standard tools such as Android Studio, Java™ programming language, XML, and device emulators. Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases. The course curriculum is a College Board-approved implementation of AP CS A and aligns with CSTA Level 3C Standards. Students will have the opportunity to take College Board's AP Computer Science - A Exam AND NOCTI Computer Programming Exam.

PGEs: RD2, PS1, RF1, M1, PR1

See “PLTW: Pathway to Engineering” for other 3rd and 4th year

course options: 3rd year- PLTW: Digital Electronics

4th year- PLTW: Engineering Design & Development



APPLY TO ATTEND PONAGANSET HIGH SCHOOL Materials & Manufacturing Pathway

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.

Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning? Do you want the opportunity to earn college credit and/or industry certifications?

The Materials & Manufacturing Pathway features courses that educate students on the latest techniques for constructing hands-on projects, while also providing them with courses steeped in craftsmanship. This pathway has been designed to equip students with 21st Century workforce skills in the areas of science, technology, engineering, and mathematics (STEM), while also emphasizing leadership, collaboration, and problem-solving skills.

Students in this pathway have the opportunity to complete industry-specific certifications that will place them far and above their peers in terms of the level of work-ready preparation upon earning their high school diplomas. These certifications allow students to earn college course credit at local colleges and technical schools.

Apply to attend Ponaganset by visiting our website at www.fg.k12.ri.us/apply. You may also email admissions@ponahs.com.

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Cutting-Edge Equipment:

- Laser Engraver
- CNC Mill
- CNC Lathe
- CNC Plasma Cutter
- CNC Router
- 3D Printers

Major Projects/Activities:

- Metal Working
- Basic Construction Projects
- Laser-Engraved Items
- 3D Printed Items
- Welding
- Materials Fabrication
- Mass Production (Adirondack Chair)
- Capstone Project

PATHWAY COURSES:

- Material Processing
- Carpentry
- Advanced Manufacturing
- PLTW Engineering Design & Development (Honors)*

College Credit:

*3 Credits May Be Earned

Industry Certifications:

- NCCER – Nat'l. Center for Construction Ed. & Research
- OSHA 10 – Occupational Safety Hazard Administration
- SP2–Safety/Pollution Prevention



Start here. Go big!® Apply online www.fg.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857-401-710-7579



Materials & Manufacturing Pathway

The Materials & Manufacturing Pathway is a secondary level program with a focus on the construction of hands-on projects using the latest techniques, along with old world craftsmanship. Students build upon previously acquired skills and knowledge to design and construct projects, utilizing the NCCER curriculum modules as a guide to success in the manufacturing industry. Workforce skills of the 21st century in the areas of science, technology, engineering, mathematics, leadership, collaboration, and problem solving are emphasized. Students are also afforded the opportunity to complete NCCER, OSHA and SP2 certifications within the pathway. There is also the opportunity for college/course credit at the Community College of Rhode Island and the New England Institute of Technology.

MATERIAL PROCESSING .5 credit

How does the design process promote the development of good solutions to technical problems? How can an engineer or technical professional effectively communicate ideas and solutions in a global society? What is the role of safety and proper practice in STEM? Students learn to plan, design and fabricate individual projects. Areas of study include common uses of materials (wood, plastics, and metal), identification of materials, calculation of board feet and completing a bill of materials. Layout work and assembly techniques are emphasized. Instruction in the safe care and use of hand and power tools is provided. Students will learn to use a variety of hand and power tools in completing individual projects. Safety precautions are emphasized during instruction. Career applications to construction and manufacturing are stressed. Students will start working toward NCCER certification (National Center for Construction Education and Research)

PGEs: RD2, PSI, RF1, MI, PRI

CARPENTRY 1 credit (Grades 10-12)

How did the problem solving process help the planning, designing, and construction of the woodworking projects? Are all safety rules adhered to during the use of any woodworking tool? What tasks need to be followed during the planning, construction, and completion of the woodworking project? Each student will develop an advanced understanding of the skills learned in the previous woodworking class. Lathe turning will be introduced and students will have the opportunity to design and build projects using the lathe. Students will also build prototypes, do marketing studies, production feasibility studies, develop and manufacture several products. Students will continue working toward NCCER (National Center for

Construction Education and Research) certification.
PGEs: RD2, PSI, RF1, MI, PRI

ADVANCED MANUFACTURING

1 credit (Grades 11-12)

How did the problem solving process help the planning, designing, and construction of the woodworking projects? Are all safety rules adhered to during the use of any woodworking tool? What tasks need to be followed during the planning, construction, and completion of the woodworking project? Using the skills taught in the Materials & Manufacturing pathway, students will work individually and in groups to study advanced manufacturing and other detail oriented skills. Students will learn the historical events and influential periods that have had an impact on present day manufacturing. The student will develop an understanding of the role of society in the development and use of manufacturing. Each student will design and produce functional and quality products. Students will have the opportunity to receive S/P2 (Safety and Pollution Prevention) Certification. Students will also be able to continue NCCER (National Center for Construction Education and Research) training they started in previous classes, the NCCER Certification can allow students to receive collage credit at approved collages. PGEs: RD2, PSI, RF1, MI, PRI

See “PLTW: Pathway to Engineering” for 4th year course:

PLTW: Engineering Design & Development



APPLY TO ATTEND PONAGANSET HIGH SCHOOL Pre-Engineering Pathway

Ponaganset High School offers a full array of academic and Advanced Placement courses with a deep commitment to developing the whole child. The school sits on 100+ acres and features cutting-edge facilities and equipment. We provide a collaborative, relevant, and personalized education supported by 1:1 technology that purposefully prepares students for college and careers. Ponaganset is fully accredited by NEASC and is a member of the League of Innovative Schools.



Seeking Highly Motivated Students who Want to Pursue Their Interests and Passions

Are you interested in a high-quality academic education combined with a meaningful career pathway that provides each student a laptop to enhance learning? Do you want the opportunity to earn college credit and/or industry certifications?

Apply to attend Ponaganset by visiting our website at www.ig.k12.ri.us/apply. You may also email admission@ponhschools.com.

Tuition is provided by sending districts for accepted students. Transportation is also provided to students from Coventry, East Greenwich, Scituate, Warwick, and West Warwick.

Cutting-Edge Equipment:

- Digital Engineering/Imaging Lab
- Z150 Rapid Prototype Printer
- Multiple 3D Printers
- Intelitek CNC Mill
- Intelitek CNC Lathe
- Forest Scientific Plasma Cutter
- Tensile Strength Tester
- Trotec Laser Engraver

Major Projects/Activities:

- EDD Capstone Project
- POE Tensile Strength
- Puzzle Cube Project
- Digital Logic Devices
- Renewable Insulation Project

PATHWAY COURSES:

- Intro to Engineering Design (Honors)*
- Principles of Engineering (Honors)*
- Digital Electronics (Honors)*
- Engineering Design & Development (Honors)*
- Computer Science Principles (AP)*
- Computer Aided Design

*These courses are affiliated with Project Lead The Way (PLTW), the leading provider of STEM education in the U.S.

College Credit:
Available for 5 Courses

The Engineering Pathway promotes critical thinking, creativity, innovation, and real-world problem-finding and solving skills through hands-on, project-based assignments that engage students on multiple levels. Students enrolled in this pathway have the chance to obtain credit at participating PLTW colleges and universities.

Students in this pathway begin with a foundational course, Introduction to Engineering Design, then move onto Principles of Engineering in their second year. Students can then choose between Digital Electronics or Computer Science Principles for year three, allowing them to cultivate an interest or explore a potential direction of career interest.

A Competitive FIRST Robotics Team (FRC), with more than 40 students and mentors from the private industry, is an integral part of this pathway. The FRC team participates in multi-day events around New England with the goal of participating in the FRC World Championships. The team has also been awarded two of FIRST's three most prestigious awards, the Rookie All-Star Award and the Engineering Inspiration Award.



Start here. Go big!® Apply online www.ig.k12.ri.us

Ponaganset High School 137 Anan Wade Road N. Scituate, RI 02857 401-710-7579

PLTW: Pathway to Engineering

Project Lead The Way (PLTW) is the leading provider of rigorous and innovative STEM (science, technology, engineering and math) education curricular programs used in schools. PLTW exists to prepare students for the global economy through its world-class curriculum, high-quality professional development, and an engaged network of educators, students, universities, and professionals. PLTW's comprehensive curriculum has been collaboratively designed by PLTW teachers, university educators, engineering and biomedical professionals, and school administrators to promote critical thinking, creativity, innovation, and real-world problem solving skills in students. The hands-on, project-based program engages students on multiple levels, exposes them to areas of study that they typically do not pursue, and provides them with a foundation and proven path to college and career success. PLTW also offers students the chance to gain college credit at participating engineering and technical schools. Please see the Project Lead The Way website for more information. WWW.PLTW.ORG

PLTW INTRODUCTION TO ENGINEERING DESIGN HONORS 1 credit

When solving an engineering problem, how can we be reasonably sure that we have created the best solution possible? What is the evidence? What is the most effective way to generate potential solutions to a problem? How many alternate solutions are necessary to ensure a good final solution? In this course, students use 3D solid modeling design software to help them design solutions to solve proposed problems. Students will learn how to document their work and communicate solutions to peers and members of the professional community. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation.

PGEs: RD2, PSI, RF1, M1, PR1

PLTW PRINCIPLES OF ENGINEERING DESIGN HONORS 1 credit

What are some current applications of simple machines, gears, pulleys, and sprockets? What are the advantages and disadvantages of using programmable logic to control machines versus monitoring and adjusting processes manually? How does the application of energy and power systems, materials, statics, kinematics, and control systems knowledge determine the design? This survey course of engineering exposes students to some of the major concepts they'll encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers and to develop skills and understanding of course concepts. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students also learn how to document their work and communicate their solutions to peers and members of the professional community.

PGEs: RD2, PSI, RF1, M1, PR1

PLTW AEROSPACE ENGINEERING HONORS 1 credit

How does an airplane fly? What role has technology played in the evolution of flight? What factors not related specifically to design criteria affect remote system design? This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles. **COURSE OFFERED in 2017-2018**
PGEs: RD2, PSI, RF1, M1, PR1

PLTW DIGITAL ELECTRONIC HONORS 1 credit

Why are the safety considerations and best practices associated with working in electronics important? How are calculations and measurement used to design and verify circuit characteristics? What are the functions of the most common analog and digital components used in electronics? From smart phones 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.

PGEs: RD2, PSI, RF1, M1, PR1

PLTW ENGINEERING DESIGN and DEVELOPMENT HONORS

1 credit

What exactly is the problem? How do I show that our design ideas were not just guesses and that my/our ideas and each of the proposed design attributes really is based on sound logic and subject related knowledge? Did I document each step of the design process in this class well enough that anyone else interested in the problem could pick up this work and both replicate what I have done as well as continue working from where I ended up? The knowledge and skills students acquire throughout the STEM Academy come together in EDD as they 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 EDD ready to take on any post-secondary program or career. The students taking the course will collaborate with students from the three STEM Academy pathways and from other academic areas within the school.

PGEs: RD2, PS1, RF1, M1, PR1

PRE-ENGINEERING

E



Topics in STEM

Topics in STEM courses allow students to explore the STEM world without committing to a certain pathway. Each class is focused on developing an understanding of the specific content in relation to an evolving, modern world. Courses offered may vary yearly. This year's courses include:

GAME DEVELOPMENT AND PROGRAMMING .5 credit (Grades 9-12)

What makes a good game good? What creates great game mechanics? How do you design great levels and features? If you want to learn the craft of making computer games, then you've come to the right place! In this course, students will explore topics in gaming and computer programming. The main focus will be on software and its use for various applications. Instruction includes practices and principles used to design and program video games. Students will primarily use Game Maker: Studio IDE to create professional-looking 2D Microsoft Windows games. Game Maker's Drag-and-drop programming language will first be used to allow students to create games immediately. Once students become experienced, Game Maker's traditional programming language, Game Maker Language (GML), will provide a more powerful way to program games. Android and iOS export will be available to create mobile games.

PGEs: RD2, PSI, RF1, M1, PR1

COMPUTER AIDED DESIGN (CAD)

.5 credit (Grades 9-12)

What is the most effective way to create parts in the 3D environment? Is there more than one method? How should information be correctly displayed in drawings to make sure that information is correctly conveyed?

What are the benefits of rapid prototyping? In this course, students will learn to use Autodesk Inventor to explore and learn the basics of 3D designs. Students will learn how to create professional quality drawings and how to create complex assemblies. Students will also learn the basics of rapid prototyping by using multiple types of 3D printers. The major focus of the CAD course is to expose students to 3D modeling and to create and design their own products.

PGEs: RD2, PSI, RF1, M1, PR1

ALGEBRA I 1 credit (Grade 9)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing linear equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations. An introduction to statistics is covered in this course if time permits.
PGEs: M, PS, W2, RF

ALGEBRA I SUPPORTS 1 credit

What Math skills are necessary for success in and beyond high school? This course is for students who need additional support to ensure they will be successful in their current and future math courses. Students enroll in this course concurrently with their math course. This course has three equally important areas of focus: Numeracy, Skill Development and Mathematical Mindset/Approach to Mathematics. Class activities may include numeracy building activities, problem solving activities, goal setting, targeted lessons, independent work time, etc.

GEOMETRY SUPPORTS 1 credit

What Math skills are necessary for success in and beyond high school? This course is for students who need additional support to ensure they will be successful in their current and future math courses. Students enroll in this course concurrently with their math course. This course has three equally important areas of focus: Numeracy, Skill Development and Mathematical Mindset/Approach to Mathematics. Class activities may include numeracy building activities, problem solving activities, goal setting, targeted lessons, independent work time, etc.

GEOMETRY 1 credit (Grade 10)

How do we utilize mathematical skills and concepts to verify the validity of solutions? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: abstract, formal approach to the study of geometry; properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, transformations, and coordinate geometry. An introduction to probability is covered in this course if time permits.
PGEs: M, PS, W2, RF

GEOMETRY HONORS 1 credit

How do we utilize mathematical skills and concepts to verify the validity of solutions? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: abstract, formal approach to the study of geometry; properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates,

theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, transformations, and coordinate geometry. An introduction to probability is covered in this course if time permits. PGEs: M, PS, W2, RF

ALGEBRA II 1 credit (Grade 11-12)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: properties and operations of the complex number system; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations and inequalities; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.
PGEs: M, PS, W2, RF

ALGEBRA II PART A 1 credit (Grade 11)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: properties and operations of the complex number system; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations and inequalities; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.
PGEs: M, PS, W2, R

ALGEBRA II PART B 1 credit (Grade 12)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: properties and operations of the complex number system; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations and inequalities; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.
PGEs: M, PS, W2, R

ALGEBRA II HONORS 1 credit (Grade 9)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? This course is aligned to the common core curriculum and instructional time in this course will focus on these critical areas: properties and operations of the complex number system; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations and inequalities; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.

PGEs: M, PS, W2, RF

PRE-CALCULUS 1 credit (Grade 12)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? Course material covers topics in Trigonometry and Math Analysis to prepare students for eventual work in Calculus. Topics include the study of right triangle trigonometric and circular functions, inverses and graphs; trigonometric identities and equations; complex numbers; polynomial, logarithmic, exponential and rational functions and their graphs; matrix algebra, sequences, series, limits and continuity may be covered.

PGEs: M, PS, W2, RF

PRE- CALCULUS HONORS

1 credit (Grade 11)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? Course material covers topics in Trigonometry and Math Analysis to prepare students for eventual work in Calculus. Topics include the study of right triangle trigonometric and circular functions, inverses and graphs; trigonometric identities and equations; complex numbers; polynomial, logarithmic, exponential and rational functions and their graphs; matrix algebra, sequences, series, limits and continuity may be covered.

PGEs: M, PS, W2, RF

AP CALCULUS HONORS

1 credit (Grade 12)

How do we effectively use multiple representations (graphs, equations, tables and verbal descriptions) to interpret and solve mathematical problems? This course is aligned to the Advanced Placement Calculus curriculum, which includes the concepts and procedures of first year Calculus. Rigorous treatment of material should be expected. Practice exams will be given during the month prior to the exam to increase chances of passing the exam. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October.

PGEs: M, PS, W2, RF

PRINCIPLES of STATISTICS 1 credit

How do we apply mathematical skills and concepts to model problem situations? The instructional time in this course will focus on these critical areas: proper methods of collecting data; applying the normal distribution correlation of linear regression; probability distributions and the rules of probability; constructing and interpreting confidence intervals.

PGEs: M, PS, W2, RF

AP HONORS STATISTICS

1 credit (Grade 12)

How do we apply mathematical skills and concepts to model problem situations? This course is a full year course which focuses primarily on probability and statistics. This course is aligned to the Advanced Placement Statistics curriculum which includes the concepts and procedures of first year Statistics. Rigorous treatment of material should be expected. To receive an AP designation on their transcript, students must take the AP exam in May—a fee is required to take the AP exam. Students must commit to this by October.

PGEs: M, PS, W2, RF

MATHEMATICAL and FINANCIAL MODELING I and II

.5 credit (Grades 9-12)

How do we apply mathematical skills and concepts to model problem situations? This course is designed to enable students to represent scenarios that are used to gain qualitative and/or quantitative understanding of some real-world problems and to predict future behaviors. Students will utilize a modeling process by defining the problem, making assumptions, defining variables, building solutions, analyzing and assessing their model and reporting their findings. Problems may arise from a variety of areas, including but not limited to, financial literacy, consumer applications, environmental issues, governmental issues, current events, engineering and design.

PGEs: M, PS, W2, RF

HEALTH and WELLNESS



To meet the state graduation health and wellness requirements, students must earn .50 credits in health and wellness annually. Both the health and wellness curriculums follow RI State Health Guidelines. The content topics are relevant to the growth and development of adolescents. The course encourages competency in many movement forms and a general understanding the biomechanics of movement and the rules and strategies of game play. The course advocates for lifetime fitness through participation in a variety of physical activities. Participation in all activities shows evidence of basic skill acquisition, responsible behavior, a respect for others and an appreciation of exercise, physical activity and healthy cooperative competition.

HEALTH and Wellness 9-10 .5 credit

How do we promote health and lifetime fitness? What are our responsibilities to the community? All grade 9-10 students participate in a health and wellness program that meets for a semester. Emphasis of this course is the transition from adolescence to young adulthood. The 9th and 10th grade course of a study includes but is not limited to; defining health and its' influences, decision making, personality, goal development, CPR, community and environmental health, nutrition, fires safety and the prevention and control of diseases.

PGEs: PR1, PS1

HEALTH and Wellness 11-12 .5 credit

How will you as an individual will affect the community around you? What are your responsibilities to the community and society? How do we promote health? All grade 11-12 students participate in a health and wellness program that meets for a semester. The course of study will include nutrition, physical fitness, alcohol, and tobacco use and abuse, living under the influence of alcohol and drugs, driving while distracted, and non-communicable diseases. An important component of this course will be a required 20 hour community service project for all juniors. In the second year of the rotation the emphasis will be on adult roles and responsibilities as well as decision making and goal setting. Major units will include dealing with mental illnesses, dating abuse and suicide, as well as, communicable diseases and STDs. The subject content is explored in relation to how teenagers make healthful decisions, live an active lifestyle and reduce their risks

PGEs: PR1, CI, R

F.I.T. (Fitness Industry Training)

.5 credit (Grades 9-12)

This is a half year elective for students interested in a future Health & Fitness Career Pathway, the new *Fitness Industry Training Course* (F.I.T.) would provide a combined Physical Education/Health Educa-

tion Advanced course to take the place of the currently offered general PE/HE courses. Students will study online, in the classroom, in the weight room, and gymnasium. Learning labs will be conducted through the N.F.H.S website, so that students have the opportunity to become certified in: Heat Illness Prevention, Concussion in Sports, and Sportsmanship. Additionally, students will also be trained in CPR & First Aid. Students gain an introduction to general medical assessment and care techniques surrounding sport injuries including: taping, wrapping, and first responder care. Advanced lifting programs, sport specific workouts, agility training, plyometric exercise, flexibility development, cardiovascular conditioning. Health Education content includes: Personal Health, Injury prevention, Components of fitness, Cardiovascular Exercise Machine use, Resistance weight machine use, and Stress Management.

STRENGTH TRAINING AND CONDITIONING .5 credit (Grades 11-12)

How does participating in ongoing strength training and conditioning promote a healthy balance of one's overall fitness? How does the utilization of proper techniques and skills maximize the effects of one's personal training program? This course is designed to familiarize the student to an approach at athletic conditioning and strength training. This class will promote students the knowledge in developing, tracking and learning about resistance training as it relates to athletics. Students will develop a weight-training program based on a personal fitness goal. Students will be instructed in basic principles of strength training & conditioning for personal fitness and development. The course focus is on strength training which includes instruction in lifts & principles of strength training and conditioning. Students will be provided quality workout opportunity based on the strength training principles taught. Topics, which may be explored, include systematic strength training, plyometric (explosion) training, speed & agility training, physiology of exercise, and other training methods.

PGEs: PR1, PS1