

# **Course of Studies**

## **2018-2019**



# **Brewer High School**

BREWER SCHOOL DEPARTMENT  
MISSION, VISION AND CORE VALUES

**Mission**

Brewer School Department educates all students through relevant and engaging instruction to achieve personal success and contribute to their community.

**Vision**

Brewer School Department will be an innovative learning community preparing students to reach their full potential as leaders, learners and critical thinkers in a complex and changing world.

**Core Values**

1. We agree to make decisions in the best interest of students.
2. We agree to promote positive relationships with all stakeholders, through transparent communication.
3. We agree to prepare students for entrepreneurial thinking, college, military and workforce readiness.
4. We agree to respect our community through cultural and instructional responsiveness and communicative practices.
5. We agree to develop personalized learning pathways for students through collaboration, student ownership, and goal setting.
6. We agree that we will enhance our craft through personal and professional development, collaboration, and continuous improvement.
7. We agree to use cutting edge technology to enhance highly engaged teaching and learning.

First Reading: July 11, 2016  
Second Reading: August 1, 2016  
Adopted: August, 1, 2016

February 2018

Dear Students and Parents/Guardians:

Preparing students for personal success is critically important to our mission at Brewer High School. With that in mind, we are continually looking for ways to engage students in learning. Once again, we are pleased to provide numerous opportunities for students through our course offerings for next year.

This Course of Studies is meant to provide students and parents/guardians with an overview of the courses that are available at Brewer High School. Students and parents/guardians should carefully look through the guide and talk with guidance counselors and teachers before choosing classes for next year. Students should consider those classes that will not only provide the skills and knowledge needed for after high school, but also challenge them and help them grow while they're here.

As a school, we continue to revise and improve our course offerings, looking for ways to make learning more meaningful, enjoyable, and beneficial for our students. It is our goal to have every student graduate from Brewer High School with the skills and knowledge he/she needs to achieve personal success and contribute to his/her community. And, of course, Brewer High School faculty, staff, and administration are committed to providing a safe, respectful and positive learning environment for all.

I look forward to working with you during the 2018-19 school year and want to extend a special welcome to the class of 2022.

Sincerely,



Brent Slowikowski  
Principal

# Graduation Requirements and Pathways

## Graduation Requirements:

**Students enrolled in the Classes of 2018-2020 must earn twenty four (24) credits allocated as follows:**

- English: Four (4) credits
- Mathematics: Four (4) credits
- Science: Three credits (3) (one must have a laboratory component)
- Social Studies: Three (3) credits (including one (1) year of U.S. History)
- Fine Arts: One (1) credit
- Health: One half (½) credit
- Physical Education: One (1) credit
- Integrated Technology: ½ credit
- Electives: The remaining seven credits may be selected by the student on the basis of his or her interests, abilities and plans following graduation (electives)

**TOTAL REQUIRED CREDITS: 24**

**Commencing with the Class of 2021 and beyond, students will be earning a proficiency based diploma. The diploma requirements are as follows:**

A. Demonstrate proficiency in the following content areas of the Maine Learning Results:

- English Language Arts
- Mathematics
- Science and Technology
- Social Studies
- Health Education
- Physical Education
- Visual and Performing Arts
- World Languages
- Career and Education Development (embedded in the other content areas)

In addition to demonstrating proficiency in the above content areas, students will need to earn the specified amount of credits in the following areas:

- ELA - Four (4) credits
- Mathematics - Four (4) credits
- Science and Technology - Four (4) Credits
- Social Studies – Three (3) Credits
- Health – ½ Credit
- PE – One (1) Credit
- Visual and Performing Arts – (One) 1 Credit
- World Languages – (Two) 2 Credits
- Career and Prep – ½ Credit

**\*TOTAL REQUIRED CREDITS: 20**

**\*Pending Board Approval**

- B. Be engaged in educational learning experiences in the content areas of English Language Arts, Mathematics, Science and Technology in each year of their secondary school program.
- C. Meet the cross content performance standards set forth by the Maine Learning Results’ “Guiding Principles.”

All students will graduate from Brewer High School as a:

- Clear and effective communicator
  - Self-directed and life-long learner
  - Creative and practical problem solver
  - Responsible and involved citizen
  - Integrative and informed thinker.
- D. Complete a capstone research project, through which students will demonstrate their knowledge and skills in conducting in-depth research, as well as proficiency in the presentation of their research through the application of technology.
- E. Every student will complete and submit an application to a post-secondary educational institution, training program, and the military, or other experience to provide an opportunity for continued growth.

### **Recommended Pathway for College and Career Readiness**

Colleges recommend the following program (as a minimum) for students preparing for a four year college program:

- 4 years English
- 1 year Biology with Lab
- 1 year Chemistry or Physics
- 1 year Geometry
- 2 years Algebra (Algebra 1 & 2) many programs also require Trigonometry
- 2 years of the same foreign language
- 3 years of Social Studies to include U.S. History

### **Honors Diploma Pathway**

The Honors Diploma Program requirements are rigorous and based on research and college readiness standards. In order to be accepted into Honors Classes students must meet the requirements in the Honors Courses Rubric found below:

To qualify for the Honors Courses in Math and or Science, a student needs a minimum of four (4) points from this list:

- 241 or higher on the math NWEA for the 8th grade year = 2pts.
- 760 or higher on the 7th Grade Math eMPower State Test = 2pts.
- 93 or higher grade average in 8th grade math class = 1pt.
- Math or Science Teacher Recommendation = 2pt.

To qualify for the Honors Courses in ELA, World Languages and/or Social Studies, a student needs a minimum of 6 points from this list:

- 230 or higher on the reading NWEA for the 8th grade year = 2pts.
- 228 or higher on language NWEA for the 8th grade year = 2pts.
- 760 or higher in 7th Grade ELA eMPower State Test = 2pts.
- 93 or higher grade average in 8th grade content class = 1pt.
- Content Area Teacher Recommendation = 2pt.

To qualify for the Honors Courses in Visual Performing Arts (Music or Art), a student needs to provide the following information for review:

- A teacher recommendation in Music or Art.
- For Art, sample artwork will need to be submitted for high school teacher to review.
- For Music, a student will need to audition for the instructor.

In order to receive an Honors Diploma students must meet the following requirements:

- English 4 credit minimum
- Math 4 credit minimum
- Modern Language 3 credit minimum of the same language
- Science 3 credit minimum \*
- Social Studies 3 credit minimum

Additional Requirements:

- Minimum of 10 AP/Honors courses
- All standard course requirements
- 6 HDP sponsored Seminars and 2 HDP sponsored field trips
- Senior Seminar or Senior Exhibition Project
- Cumulative GPA of 90 or higher (by end of 7th semester)

\*Physical Science and Applied Physics do not meet this requirement

## **Advanced Placement Pathway**

Advanced Placement (A.P.) is a program sponsored by the Educational Testing Service, a subsidiary of the College Board in Princeton, N.J. The program consists of 37 college-level courses across 22 subject areas that can be offered to secondary school students. All Advanced Placement courses are supplemented by a nationwide AP exam given annually in May. Most colleges grant credit and/or advanced placement (sophomore standing) to students whose AP examination grades are considered acceptable. Courses are listed in the following sections and other AP Courses may be offered online via AP4ALL

## **Technical/Community College Preparation**

Careful course selection is necessary to meet requirements for admission to a two year technical or community college. As a minimum, most of these programs require Algebra 1. However, many of the programs require Algebra 1 & 2 and thorough preparation in the sciences or applied learning areas (vocational programs, business courses, etc.) The Guidance Library offers detailed information about these requirements.

\*Please see the course descriptions for UTC for more information.

# Table of Contents

<b>ELA .....</b>	<b>11</b>
English I – Course 111 .....	12
Honors English I – Course 110 .....	12
English 2 – Course 121 .....	12
Honors English II – Course 120 .....	13
AP English Language and Composition – Course 130 .....	13
AP English Literature and Composition – Course 140 .....	13
American Literature – Course 132 .....	14
Sports Literature – Course 147 .....	14
Speech and Communication – Course 141 .....	14
World Literature – Course 134 .....	14
Business and Technical Writing – Course 136 .....	15
Dramatic Literature and Arts – Course 133 .....	15
British Literature – Course 142 .....	15
Creative Writing – Course 160 .....	15
Concurrent English I: English Composition – Course 148 .....	16
Concurrent English II: Speech and Communication – Course 144 .....	16
Yearbook Publication – Course 152 .....	16
<b>Mathematics Courses.....</b>	<b>17</b>
Strategic Algebra 1 - Course 401 .....	18
Algebra 1 - Course 412 .....	18
Honors Algebra 1 - Course 411 .....	18
Geometry - Course 422 .....	19
Honors Geometry - Course 420F .....	19
Honors Geometry - Course 420 .....	19
Algebra 2 - Course 432 .....	19
Honors Algebra 2 - Course 431 .....	20
Algebra 2 Part A - Course 433 .....	20
Algebra 2 Part B - Course 433B .....	20
College Accounting - Course 634 .....	21
Accounting 2 - Course 640 .....	21
Honors Functions, Statistics, and Trigonometry (Honors FST) - Course 455 .....	21
Honors Pre-Calculus - Course 430 .....	22
Pre-Calculus - Course 429 .....	22
Statistics - Course 441 .....	22
Trigonometry - Course 442 .....	23
AP Calculus BC - Course 440 .....	23
AP Statistics - Course 452 .....	23
Technical Math - Course 444 .....	24
Concurrent Statistics - Course 462 .....	24
<b>Science.....</b>	<b>25</b>
Physical Science - Course 511 .....	26
Honors Physical Science - Course 510 .....	26
Biology - Course 522 .....	26
Honors Biology - Course 521 .....	27



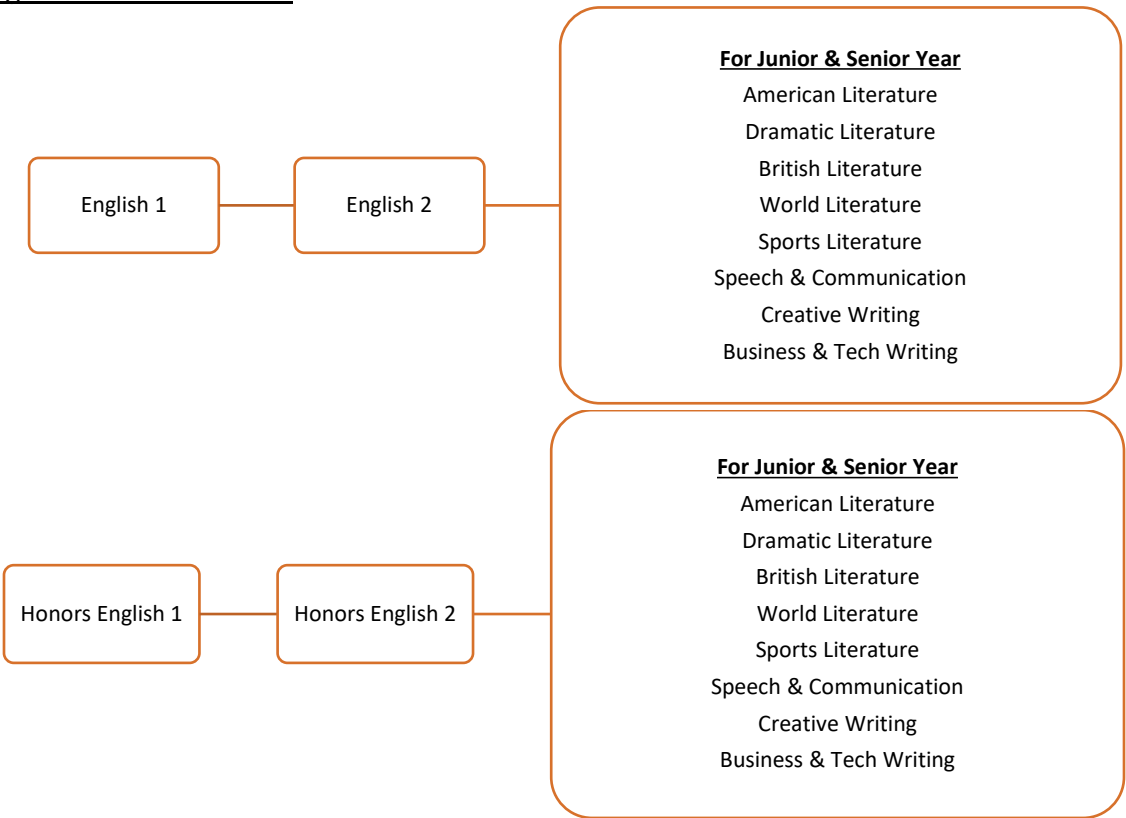
Advanced Placement Biology - Course 550.....	27
Concurrent Human Biology (Anatomy) - Course 533.....	27
Concurrent Biology - Course 538.....	28
Applied Chemistry - Course 534.....	28
College Preparatory Chemistry - Course 532.....	28
Advanced Placement Chemistry - Course 530.....	29
Concurrent Chemistry - Course 532.....	29
Applied Physics - Course 542.....	29
College Preparatory Physics - Course 541.....	30
Advanced Placement Physics I - Course 540.....	30
Ecology - Course 536.....	30
Advanced Placement Environmental Science - Course 535.....	31
Astronomy - Course 562.....	31
Human Anatomy and Physiology - Course 560.....	31
Forensic Science - Course 561.....	31
STEM: Introduction to Engineering Design (IED) Course 645e.....	32
STEM: Principles of Engineering – Course 650e.....	32
STEM: Computer Science Essentials - Course 645c.....	32
STEM: Computer Science Principles - Course 650c.....	33
STEM: Principles of Biomedical Science (PBS) - Course 645b.....	33
STEM: Human Body Systems - Course 650b.....	33
<b>Social Studies.....</b>	<b>34</b>
Civics – Course 211.....	35
Honors Civics - Course 210.....	35
World History - Course 220.....	35
U.S. History - Course 232.....	36
Honors U.S. History - Course 230.....	36
American Law and Trial - Course 208.....	36
Business Law - Course 648.....	37
AP U.S. History - Course 231.....	37
Concurrent US History 1 - Course 246.....	37
Concurrent US History 2 - Course 247.....	38
Western Civilization - Course 222.....	38
Personal History through Genealogy - Course 221.....	38
Psychology - Course 241.....	39
Sociology - Course 242.....	39
Current World Problems - Course 243.....	39
<b>World Languages.....</b>	<b>40</b>
French 1 - Course 310.....	41
Honors French 1 - Course 312.....	41
French 2 - Course 320.....	41
Honors French 2 - Course 322.....	42
French 3 – Course 325.....	42
Honors French 3 - Course 330.....	42
French 4 - Course 342.....	43
AP French Language - Course 340.....	43
Conversational French - Course 333.....	43
Spanish 1 - Course 311.....	44

Honors Spanish 1 - Course 313 .....	44
Spanish 2 - Course 321 .....	44
Honors Spanish 2 - Course 323 .....	45
Spanish 3 Course 324 .....	45
Honors Spanish 3 - Course 331 .....	45
Spanish Literature - Course 351 .....	46
Conversational Spanish - Course 334 .....	46
Current Issues in Latin America - Course 337 .....	46
Spanish 4 - Course 343 .....	46
AP Spanish Language - Course 341 .....	47
American Sign Language 1 - Course 300 .....	47
American Sign Language 2 - Course 301 .....	47
<b>Wellness .....</b>	<b>48</b>
Physical Education - Course 001 .....	48
Fitness and Wellness - Course 014 .....	49
Principles of Coaching - Course 016 .....	49
Physical Education Team Leaders - Course 004 .....	49
Health - Course 002 .....	49
Health Aide - Course 008 .....	50
Outdoor Education - Course 005 .....	50
Advanced O.E. - Course 007 .....	50
Outdoor Leadership - Course 006 .....	50
<b>Visual and Performing Arts.....</b>	<b>51</b>
Art 1 - Course 911 .....	51
Honors Art 1 - Course 915 .....	52
Drawing - Course 912 .....	52
Sculpture - Course 913 .....	52
Advanced Art - Course 916 .....	53
AP Studio Art - Course 917/ 918 .....	53
Painting - Course 921 .....	54
Printmaking - Course 922 .....	54
Graphic Design - Course 725 .....	54
Digital Photography - Course 728 .....	55
Advanced Digital Photography - Course 729 .....	55
<b>Music .....</b>	<b>56</b>
Concert Band - Course 930 .....	56
Concert Choir - Course 960 .....	56
Jazz Ensemble - Course 937 .....	57
Jazz Improvisation 101 - Course 935 .....	57
Jazz Improvisation 102 - Course 936 .....	57
Music Theory - Course 950 .....	57
American Music - Course 951 .....	58
Introduction to Guitar - Course 952 .....	58
Digital Audio and Live Sound Reinforcement - Course 962 .....	58
Sports band (The Groove Factor) - Course 932 .....	59
Instrumental Lab - Course 933 .....	59
Honors Instrumental Music - Course 934 .....	59

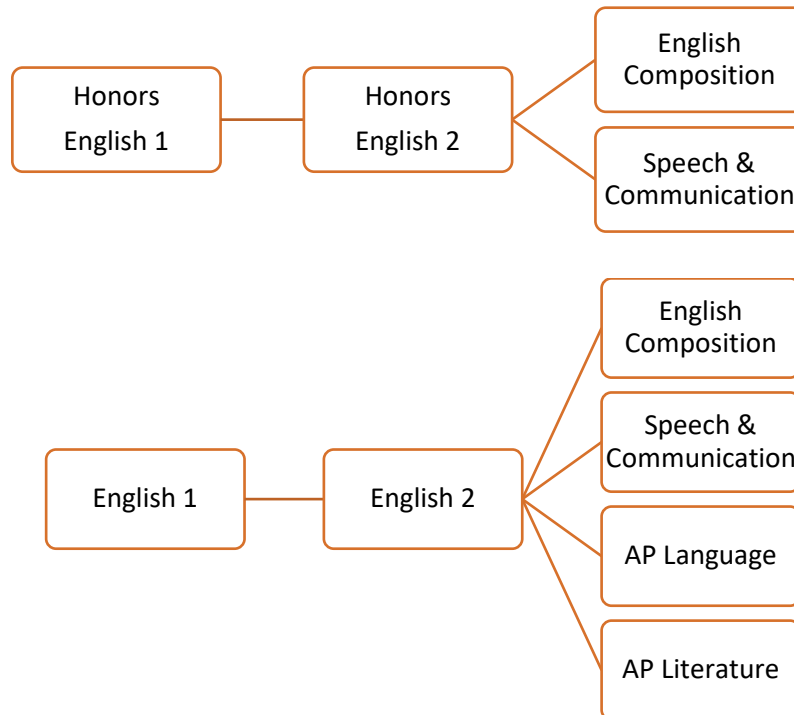
<b>Technology.....</b>	<b>60</b>
Integrative Technology - Course 632.....	60
Computer Applications I - Course 633.....	60
Computer Applications II - Course 642.....	60
Web Page Design - Course 638.....	61
Advanced Web Page Design - Course 649.....	61
Multimedia Design - Course 639.....	61
<b>Additional Options.....</b>	<b>62</b>
Internships.....	62
Introduction to Forestry Management - Course 089.....	62
Introduction to Forestry Management II - Course 096.....	62
Senior Exhibition.....	63
Senior Seminar.....	63
<b>Special Programs.....</b>	<b>64</b>
Air Force Junior Reserve Officer Training Corps Program (AFJROTC).....	64
Air Force JROTC Course 830-5.....	64
Alpha Program.....	65
Special Education.....	65
Transitional Advantage Program (TAP).....	65
Jobs for Maine’s Graduates (JMG).....	66
Jobs for Maine’s Graduates (JMG) - Course 090.....	66
Jobs for Maine’s Graduates (JMG) II - Course 094.....	66
College 101 – Course 093.....	66
United Technologies Center (UTC).....	67

# ELA

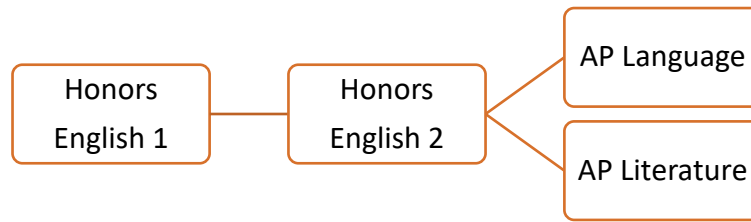
## College & Career Readiness



## College Prep/Dual Enrollment



## AP Pathway



### English I – Course 111

**Grade 9**

**Full Year**

**1 Credit Required for Graduation**

**Prerequisite: None**

English I is a comprehensive course of literature, composition, and language. Students will explore fiction and nonfiction texts, focusing on story elements, point of view, and purpose. Writing will be structured around narrative and informative pieces. Analysis of speech will enable students to identify figurative language techniques authors use to develop their purpose and message. Students will continue to study the conventions of English grammar and punctuation. Vocabulary development will come from words generated from reading selections.

### Honors English I – Course 110

**Grade 9**

**Full Year**

**1 Credit Required for Graduation (in place of English I)**

**Prerequisite:** Meets the requirements in the Honors Pathway Rubric

Honors English 1 is designed to prepare students for more rigorous English courses taken during their junior and senior years. The emphasis in Honors English I is on the development of strong reading, writing, speaking, and critical thinking skills. Students will read and analyze a broad and challenging range of fiction and nonfiction texts, focusing on story elements, point of view, and purpose. Additionally, students will read several works of fiction independently during the course of the year and deliver presentations on these books, connecting their independent reading to our learning targets. They will also strengthen and develop their writing skills with the study of narrative and informative writing. Students will continue to study the conventions of English grammar and punctuation. Vocabulary development will come from words generated from reading selections.

### English 2 – Course 121

**Grade 10**

**Full Year**

**1 Credit Required for Graduation**

**Prerequisite:** English I

Sophomore English continues to build and reinforce skills needed to prepare students for a post-secondary education. Sophomores will continue to work with paragraph development and to write three-part essays. The emphasis of literary study includes the genres of poetry, the short story, and the novel. Sophomores will continue the study of grammar by focusing on mechanics, usage, and structure. Vocabulary enrichment activities are taught through the use of words taken from literary study.

## **Honors English II – Course 120**

**Grade 10**

**Full Year**

**1 Credit Required for Graduation (in place of English 2)**

**Prerequisite:** Teacher Recommendation or Honors English I

Sophomores who select Honors English 2 accept the challenge of an intense, fast-paced course that meets the expectations of English 2 and moves beyond them. They will focus on more difficult literature and on critical analysis and argumentation. They will also investigate sophisticated rhetorical strategies and the language of the English AP curriculum, preparing them for more rigorous classes and pathways in the 11th and 12th grade year. Students in this rigorous course will also supplement their learning with independent reading and writing assignments.

## **AP English Language and Composition – Course 130**

**The AP English teachers will review the student qualifications in the spring.**

**Grade 11-12**

**Full Year, 1 Credit**

**Prerequisite:** Teacher Recommendation or Honors English II

An Advanced Placement course for juniors or seniors in English Language and Composition trains students to become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts (non-fiction texts). The course also gives students the practice and helpful criticism necessary to make them flexible writers who can compose in a variety of modes and for a variety of purposes, with an emphasis on expository, analytical, argumentative, and synthesis writing. Assuming that its participants have already mastered standard English grammar, the course seeks to develop stylistic maturity through students' mastery of their own writing processes, particularly their ability to reconsider and revise their work. The springboard for students' writing efforts is primarily investigation of expository essays and American literature. Other requirements of the course include journal work, cooperative presentations, and summer reading and writing. Success on the national AP exam in May potentially earns students college credit.

## **AP English Literature and Composition – Course 140**

**The AP English teachers will review the student qualifications in the spring.**

**Grade 11-12**

**Full Year 1 Credit**

**Prerequisite:** Teacher Recommendation or Honors English II

AP English Literature and Composition is designed to be a college level survey course with the intellectual challenges and workload consistent with an undergraduate literature and writing course. Most of the literature in this class is arranged chronologically with British literature as its focus; however, works from other cultures are studied as well to broaden the students' knowledge of literature and culture of other countries. Students in this class will be required to write a formal essay at the end of each unit and either a timed writing or an essay test as well. Shorter, on-demand writing will be assigned daily. Students will be required to understand the function of works within respective literary time periods while gaining a greater understanding of how canonical texts preserve cultural, societal, and political ideology. A summer reading and accompanying essay is a prerequisite for the course.

## **American Literature – Course 132**

**Grade 11-12**

**Semester .5 Credit**

**Prerequisite:** English II or Honors English II

This semester course will focus on American literary works. Emphasis is placed on historical background, cultural context, and literary analysis of selected fiction, non-fiction, poetry, and drama. Upon completion, students should be able to interpret, analyze, and become proficient in responding to selected works using a variety of discussion, reading, writing, and grammatical skills.

## **Sports Literature – Course 147**

**Grade 11-12**

**Semester .5 Credit**

**Prerequisite:** English II or Honors English II

This semester course will focus on the use of sports in literature. It is perfect for the sports enthusiast who understands and appreciates the connection between sports themes and society. Students will analyze sports' function in society through evaluating nonfiction, media, and personal observation. Readings and viewings selected are high-interest and thought-provoking. Writing in this course will include argument and informative pieces. Themes studied will include leadership and character, sports and culture, health, definitions of success and failure, coaching ethics, etc.

## **Speech and Communication – Course 141**

**Grades 11-12**

**Semester .5 Credit**

**Prerequisite:** English II or Honors English II

Students will study and practice the fundamentals of interpersonal communication, discussion speaking, and public speaking. By the end of this course, students will be more equipped to communicate their ideas with others in the classroom, in the workplace, and in more formal speaking settings. Students will be expected to analyze the speeches of others; research, organize, and write their own presentations; and give presentations in a variety of settings. They will explore several digital media to employ in their own presentations. Students in this course will help present the Morning Announcements to the high school. If funding is available, students will participate in the Building Community Through the Arts program, a project in which they collaborate with their peers to create a dramatic piece that is shared with regional schools.

## **World Literature – Course 134**

**Grades 11-12**

**Semester - .5 credit**

**Prerequisite:** English II or Honors English II

This one semester course engages students in a variety of literary works from around the world. Emphasis is placed on historical background, cultural context, and literary analysis of selected fiction, non-fiction, poetry, and drama. Upon completion, students should be able to interpret, analyze, and become proficient in responding to selected works using a variety of discussion, reading, writing, and grammatical skills.

## **Business and Technical Writing – Course 136**

**Grades 11-12**

**Semester - .5 credit**

**Prerequisite:** English II or Honors English II

In this semester course, students will learn to analyze and interpret technical information and to communicate effectively and efficiently in writing using the vocabulary of the business and technical worlds. Various types of documents typical of technical writing will be introduced, and the student will practice each one. Upon completion, students should be able to apply the principles of successful professional communication ranging in complexity, length, formatting demands, and the manipulating of genre.

## **Dramatic Literature and Arts – Course 133**

**Grades 11-12**

**Semester - .5**

**Prerequisite:** English II or Honors English II

This one semester course engages students in a variety of dramatic literature. Students will be able to articulate the meaning of plot, character, theme, spectacle, diction and music—the essential components of a play. Students will respond to these elements of dramatic literature through daily writing, discussion, and presentation exercises. Upon completion, students should *be able to interpret, analyze, and* become proficient in responding to selected works using a variety of discussion, presentation, reading, writing, and grammatical skills.

## **British Literature – Course 142**

**Grades 11-12**

**Semester - .5 credit**

**Prerequisite:** English II or Honors English II

This one semester course engages students in a variety of literary works from United Kingdom, Isle of Man and Channel Islands. Emphasis is placed on historical background, cultural context, and literary analysis of selected fiction, non-fiction, poetry, and drama. Upon completion, students should be able to interpret, analyze, and become proficient in responding to selected works using a variety of discussion, reading, writing, and grammatical skills.

## **Creative Writing – Course 160**

**Grades 11-12**

**Semester - .5 credit**

**Prerequisite:** English II or Honors English II

Creative Writing offers students a chance to explore the writing process in both teacher-directed and self-directed settings. The class will focus on the elements of fiction, memoir, writing for children, and digital writing. In addition to whole-class assignments, students will be given ample workshop time to develop their own writing with the help and feedback of peers and the teacher. Self-direction and participation in class discussion are essential.



## **Concurrent English I: English Composition – Course 148**

**Grade 11/12**

**Full Year 1 Credit**

**Prerequisite:** Recommendation from a previous English teacher or acceptance into the Bridge Year program. The English teachers will review the student qualifications in the spring.

Concurrent English I is a yearlong, dual enrollment course that will offer students the opportunity to receive both high school and college credit. Upon completion of the course, students who earn a grade of C or higher will receive 3 college credits for English Composition through the University of Maine. Students choosing to take this course will need to be prepared for a rigorous workload that will require them to engage in college level writing and reading. Upon completion of this course, students will have completed a portfolio that includes argumentative, analytical, synthesis, digital, and research writing. This course will encourage students to engage in the writing workshop model which is designed to help students improve writing skills that they will need for a variety of academic courses and purposes.

## **Concurrent English II: Speech and Communication – Course 144**

**Grade 11/12**

**Full Year 1 Credit**

**Prerequisite:** Recommendation from a previous English teacher or acceptance into the Bridge Year program. The English teachers will review the student qualifications in the spring.

Concurrent English II is a yearlong, dual enrollment course that will offer students the opportunity to receive both high school and college credit. Upon completion of the course, students who earn a grade of C or higher will receive 3 college credits for Speech and Communication through the University of Maine. Students choosing to take this course will need to be prepared for a rigorous workload. The course emphasizes experiential learning. Topics include audience identification, topic development, purpose recognition, organization and delivery, use of props/visuals/technology, overcoming public speaking fears, and the importance of non-verbal communication and signals.

## **Yearbook Publication – Course 152**

**Grades 11 & 12**

**1 Credit**

**Fine Arts Credit**

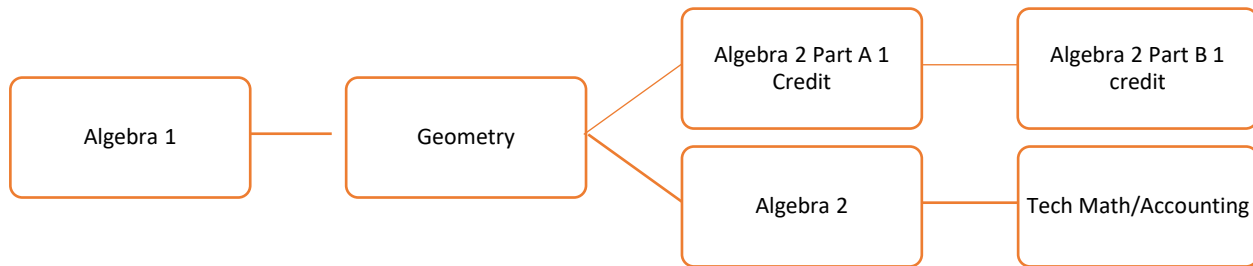
**Prerequisite:** Instructor's permission

This class is charged with the entire creative responsibility of publishing the Trident, Brewer High School's yearbook. These responsibilities include photography, interviewing, writing, marketing, computer layout, multimedia design, and professional presentation. Because the class functions as a publishing firm, teamwork and meeting deadlines are essential. Students who are interested in taking this class must complete an online application form and ask their current English teacher as well as 1 other teacher to submit an online recommendation form. Ten students will be chosen through this application process.

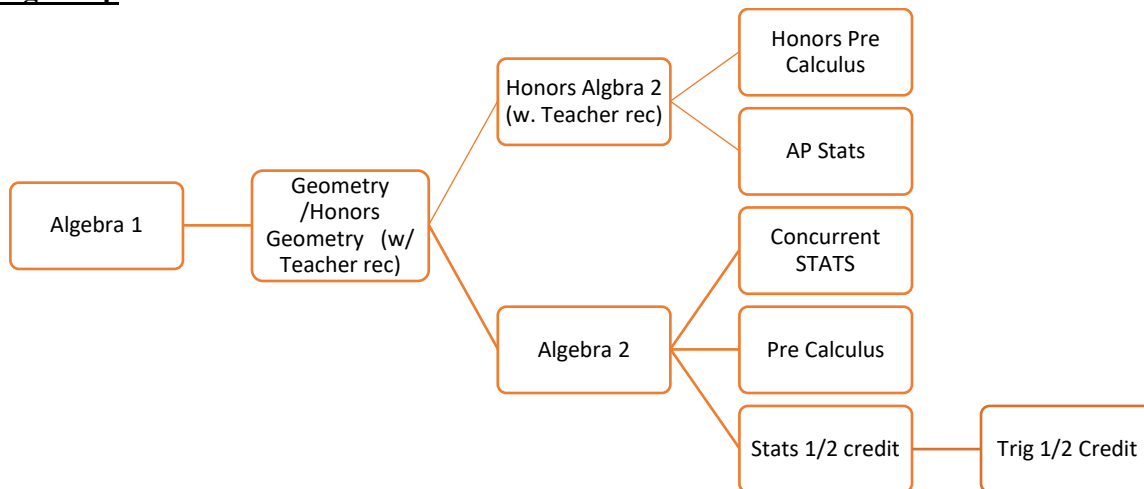
# Mathematics Courses

Due to the fact that math skills build on previous learning, appropriate placement is vital to success. Students will be required to meet all prerequisites and should select math courses that are challenging and will prepare them for their future education and careers. It is important to check math prerequisites for post-secondary programs. Here is a flow chart of suggested courses to take that best fits your pathway for success after graduating from Brewer High School.

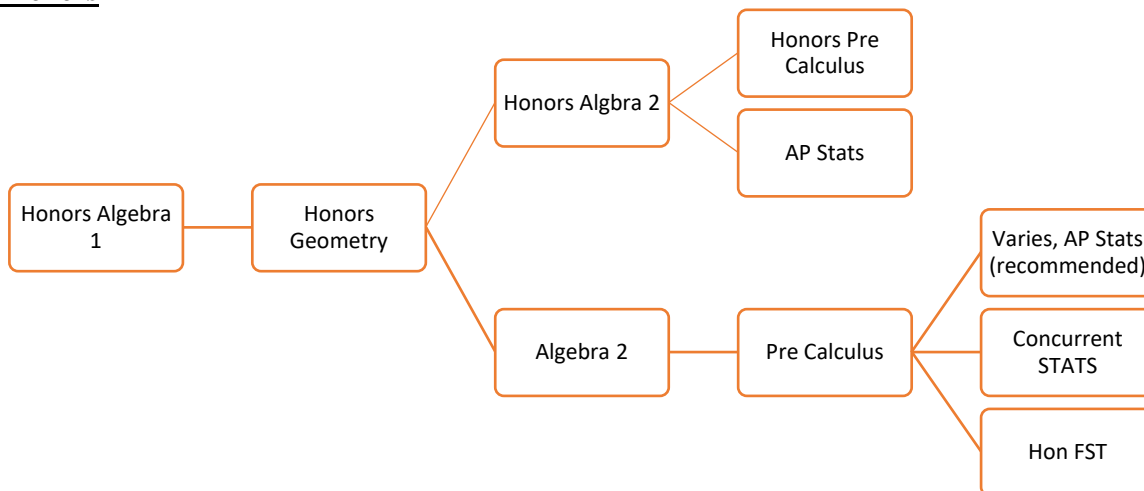
## College & Career Readiness



## College Prep



## AP/Honors



## **Strategic Algebra 1 - Course 401**

**Grade 9**

**Full Year**

**1 Math Credit, 1 Elective Credit**

**Prerequisite:** 8th Grade Math

In addition to Algebra 1 skills and concepts, this course provides the development of prerequisite skills, concepts, and problem solving processes needed to help students be successful. These skills shall include proficiency in the rules for adding, subtracting, multiplying and dividing signed numbers. This is the first in a series of math courses in a college and career readiness program. This course develops the basic concepts and establishes the mathematical symbolism of algebra that is needed as a foundation for later courses. The topics of number relations, formulas, positive and negative numbers and the fundamental arithmetic operations make it an extension of earlier mathematical learnings. Open sentences and their symbols, variables, and functions begin the fundamental theory and structure of algebra. This class may not be taken concurrently with Geometry.

## **Algebra 1 - Course 412**

**Grade 9**

**Full Year**

**1 Credit**

**Prerequisite:** 8th grade math. Incoming 9th graders who demonstrate a lack of readiness for Algebra 1 will be scheduled an additional period of algebra support.

Algebra 1 is the first in a series of math courses in the college and a career readiness program. This course develops the basic concepts and establishes the mathematical symbolism of algebra that is needed as a foundation for later courses.

The topics of number relations, formulas, positive and negative numbers and the fundamental arithmetic operations make it an extension of earlier mathematical learnings. Open sentences and their symbols, variables, and functions begin the fundamental theory and structure of algebra. This class may not be taken concurrently with Geometry.

## **Honors Algebra 1 - Course 411**

**Grade 9**

**Full Year**

**1 credit**

**Prerequisite:** Meets the requirements in the Honors Pathway Rubric.

Honors Algebra includes all topics mentioned in Algebra 1 with many topics covered in more depth. It may include several more advanced strategies in the topics including systems of equations, factoring trinomials with leading coefficients not equal to one, solving quadratic equations by factoring and the quadratic formula, radical expressions and solving radical equations. This class cannot be taken concurrently with Geometry.

## **Geometry - Course 422**

**Grade 10**

**Full Year**

**1 Credit**

**Prerequisite: Algebra 1**

Geometry is the second in a series of math courses in the college and a career readiness program. This course provides students with experiences that deepen the understanding of two and three-dimensional objects and their properties. Topics include: points, lines, angles and planes, polygons, (with a special focus on quadrilaterals, triangles, right triangles) circles, and polyhedral and other solids. An understanding of proof and logic is developed. This class cannot be taken concurrently with Algebra 1.

## **Honors Geometry - Course 420F**

**Grade 9**

**Full Year**

**1 Credit**

**Prerequisite:** Algebra 1 plus meets the requirements in the Honors Pathway Rubric.

This course is for freshman seeking to take the Honors Pathway. Please see course description for Honors Geometry below.

## **Honors Geometry - Course 420**

**Grade 10**

**Full Year**

**1 Credit**

**Prerequisite:** 93 or better in Algebra I, with teacher recommendation

Honors Geometry is the most demanding geometry course for the college preparatory student. This course requires a high degree of understanding of algebraic theory in addition to superior computational skills; and therefore, should be undertaken only after successful completion of a rigorous course in Algebra 1. Students will work on the development of deductive theory and the application of theory to problem solving. They will prove theorems essential to the study of plane geometry and selected topics in coordinate geometry. This course is designed to be highly conceptual in nature with a maximum emphasis on geometry proof. This course is recommended for the student who plans on a 4 year college education with emphasis in the math and science area. This class cannot be taken concurrently with Algebra 1.

## **Algebra 2 - Course 432**

**Grades 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Algebra I (77 or better) and Geometry

Algebra 2 is the third course in a series of math courses in the college and a career readiness program. Algebra 2 reviews and extends understanding and use of the number system of elementary algebra, formulas, equations, and graphs. Other topics include exponents, quadratics, polynomials, radicals, complex numbers, probability, and logarithms. The Algebra 2 course offers a solid foundation for those students planning to take a fourth year math course or for those who will study math further in post-secondary education.

## **Honors Algebra 2 - Course 431**

**Grade 10, 11**

**Full Year**

**1 Credit**

**Prerequisite:** 85 or better in Honors Geometry OR 93 or better in Geometry, with teacher recommendation

Algebra 2 is the third course in a series of math courses for the college preparatory program. Algebra 2 reviews and extends understanding and use of the number system of elementary algebra, formulas, equations, and graphs. Other topics include exponents, radicals, quadratics, complex numbers, probability, and equations of higher degree. Honors Algebra 2 requires a substantial commitment in and outside of class. It is designed to prepare students for Honors Pre-Calculus and AP Statistics.

## **Algebra 2 Part A - Course 433**

**Grade 11**

**Full Year**

**1 Credit**

**Prerequisites:** Credit earned in Algebra 1 and Geometry, with teacher recommendation.

Building on their work with linear functions, students extend their repertoire of functions to include quadratics and polynomials. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic and polynomials equations over the set of complex numbers. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **Algebra 2 Part B - Course 433B**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisites:** Algebra 2 Part 1

Building on their work with quadratic and polynomial functions, students extend their repertoire of functions to include radical functions (limited to square roots or cube roots of at most quadratic polynomials), and logarithmic functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including radical equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **College Accounting - Course 634**

**Grades 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** None

If you are interested in running your own business someday or thinking of going to college for business this is a course for you. This course covers the fundamental principles and procedures of accounting, including journalizing, posting, adjusting entries, closing procedures, and preparing financial statements. This course will prepare a student for an entry-level job as an accounting clerk or help to explore accounting as a possible career. It is also used to attain a sound knowledge of keeping books for personal use. The student will not only develop a working knowledge of manual accounting, but will also develop a working knowledge of computerized accounting if time permits.

## **Accounting 2 - Course 640**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisite:** College Accounting

The accounting principles taught in Accounting 1 are used as the basis for advanced stages of accounting principles in this course. It includes a study of accounting methods in Partnerships and Corporations and particularly how the accounting systems are devised for departmental accounting. The use of the computer will be incorporated into the teaching of this course using an automated accounting program.

\*TECH-PREP – Successful completion of these two courses can result in 3 college credits at Eastern Maine Community College. (See Instructor)

## **Honors Functions, Statistics, and Trigonometry (Honors FST) - Course 455**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** 85 or better in Honors Algebra 2 or 93 or better in Algebra 2, with teacher recommendation

Honors FST is recommended for the student who plans on a 4-year college education with an emphasis in the areas of math and science. This rigorous course integrates statistical, trigonometric and algebraic concepts. Students will display, describe, transform, and interpret numerical information represented as data, graphs, or equations. The use of polynomial, exponential, and trigonometric functions to model real-world situations is the major theme. It also includes several more advanced topics including parametric equations, binomial distributions, normal distributions, and an introduction to statistical inference.

## **Honors Pre-Calculus - Course 430**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** 85 or better in Honors Algebra 2

This rigorous course precedes Calculus. Throughout the year, tasks require students to be independent thinkers and to have good study skills. Students will model functions graphically, numerically, and algebraically. Types of functions include polynomial, power, rational, exponential, logistic, logarithmic, and trigonometric. The course develops problem solving skills and conceptual understanding through class discussions and practice work involving mental math, pencil and paper work, and judicious use of programmable calculators. This course is specifically designed as a prerequisite for AP Calculus. Graphing calculators are needed. Recommendation: any version of the TI-83 or TI-84.

**\*This course requires a substantial commitment in and outside of class.**

## **Pre-Calculus - Course 429**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** 85 or better in Algebra 2

Pre-Calculus is a College Preparatory course for students who have successfully completed Algebra 2. This course is recommended for students who expect to take calculus or similar advanced math classes at the college or university level. Students will study the theory of functions and graphs, including polynomial, rational, exponential, logarithmic, and trigonometric functions. Students will also study applications of trigonometry, trigonometric identities and equations.

## **Statistics - Course 441**

**Grade 11-12**

**Semester**

**0.5 Credit**

**Prerequisite:** Algebra 2

Statistics is a College Preparatory course for students who have successfully completed Algebra 2. It prepares students for success in a college level statistics class. Students will study the basics of probability, including independent and dependent events, conditional probability, discrete random variables, probability distributions, measures of central tendency, normal distribution curves, and data organization and display.

## **Trigonometry - Course 442**

**Grade 11-12**

**Semester**

**0.5 Credit**

**Prerequisite:** Algebra 2

Trigonometry is a College Preparatory course for students who have successfully completed Algebra 2. This course is recommended for students who expect to enter a post-secondary course of study that requires the study of trigonometry, especially in the fields of engineering and science. Students will study right triangle trigonometry, graphs of trigonometric functions, trigonometric equations and identities, inverse trigonometric functions, triangles and vectors.

## **AP Calculus BC - Course 440**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisite:** 88 or better in Honors Pre-Calculus

Students in this class must have completed a rigorous course of studies in math. AP Calculus is directly preceded by a Pre-calculus class in which the judicious use of programmable calculators is emphasized.

Advanced Placement Calculus consists of a full academic year of study that is comparable to calculus courses in colleges and universities. Calculus is explored through the interpretation of graphs and tables as well as analytic methods such as multiple representatives of functions. To succeed in this class, students must be motivated learners with good study skills. It is expected that students who take this course will seek credit and/or college placement from institutes of higher learning (will take the AP Calculus exam).

**\*This course requires a substantial commitment in and outside of class. Summer work is required**

## **AP Statistics - Course 452**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisite:** 85 or better in Honors Algebra II or a successful completion of FST, Honors FST or Honors Pre-Calculus

In this course, students will study the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics in AP Statistics are divided into four broad conceptual themes: 1) Exploring Data – Describing patterns and departures from patterns; 2) Sampling and Experimentation – Planning and conducting a study; 3) Patterns – Exploring random phenomena using probability and simulation; and 4) Statistical Inference – Estimating population parameters and testing hypotheses. This course makes extensive use of technology, and it is strongly recommended that students have their own graphing calculator in the TI-84 family.

Upon successful completion of the course and AP exam, students may receive college credit for a one-semester introductory college statistics course.



## **Technical Math - Course 444**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisite:** Credit earned in Algebra 2, with scores not higher than a 76.

This course emphasizes arithmetic review, ratios, proportion, variation, power of roots, percent, metric system, unit conversions, signed numbers, basic algebraic expressions, algebraic operations, simple equations, inequalities, applied plane and solid geometry review (perimeter, area, and volume), graphing, and right triangle trigonometry.

## **Concurrent Statistics - Course 462**

**Grade 11 & 12**

**Full Year**

**1 Credit**

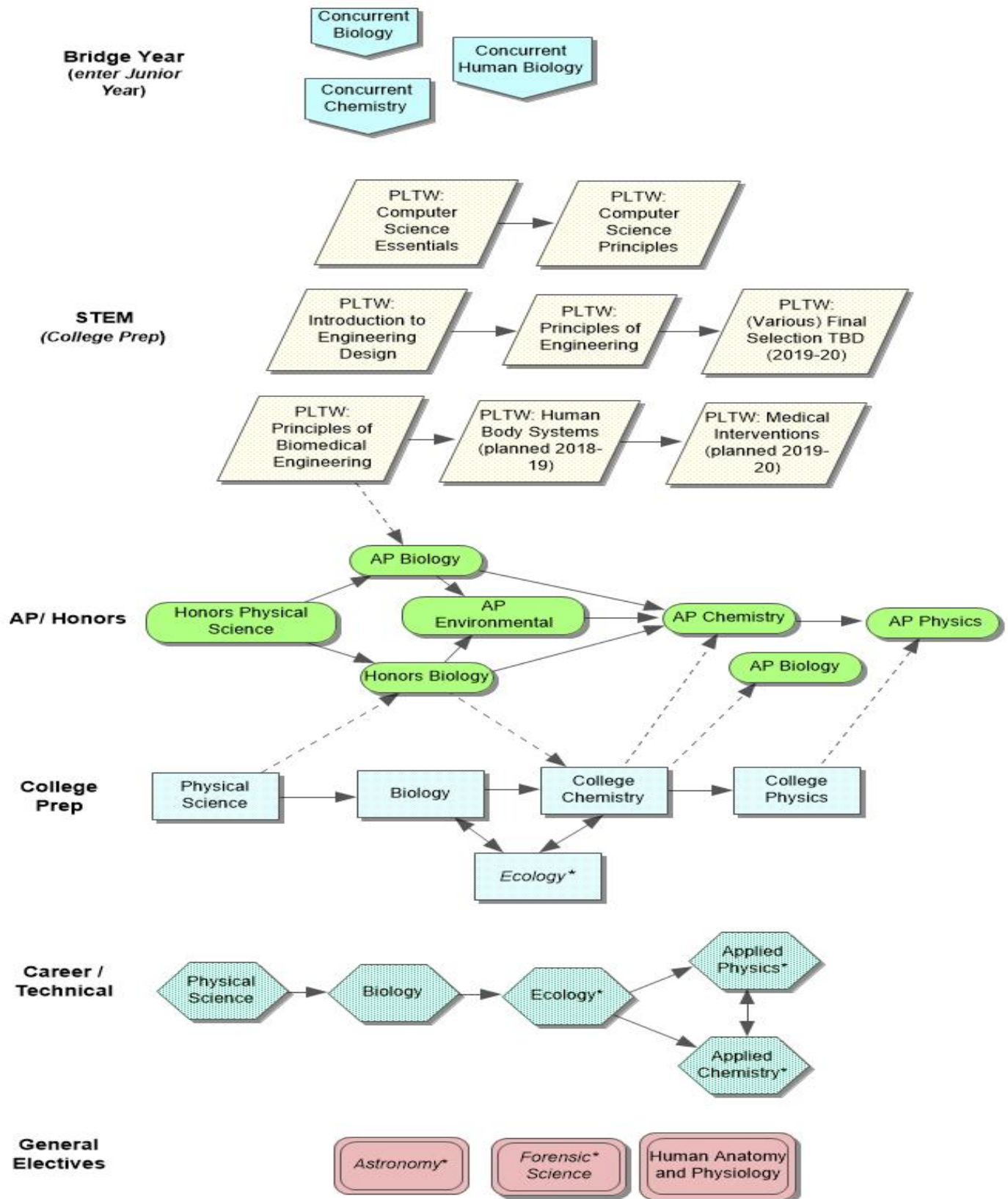
**Prerequisites:** Minimum Algebra Proficiency: Grade of C or better in Algebra 2 and teacher recommendation.

This course is designed to provide students majoring in a wide variety of disciplines with an understanding of the applications of statistics and the ability to communicate its use.

Students will develop statistical literacy in the two major applications of statistics, namely descriptive and inferential statistics.

Students will learn tools of collection, analysis, and interpretation of data. As much as possible, real data will be analyzed and technology will be utilized.

# Science



\* = Semester length course

## **Physical Science - Course 511**

**Grade 9**

**Full Year**

**1 Credit**

**Prerequisite:** None

Physical Science focuses on two major areas of science: chemistry and physics. Students are exposed to hands-on activities, labs, and the process of science. A variety of learning targets under measurement topics Physical Science: Heat Energy, Physical Science: Forces & Motion, Physical Science: Matter, and Earth and Space Science will be achieved in this class. This class is open to freshman only and has no prerequisites.

## **Honors Physical Science - Course 510**

**Grade 9**

**Full Year**

**1 Credit**

**Prerequisite:** Minimum NWEA spring scores of 246 in math and 232 in language usage.

Honors Physical Science will explore the same concepts in more depth and at a more accelerated pace than physical science course 511. This allows students of this course to hit more learning targets. This is a math intensive and technical writing intensive course.

## **Biology - Course 522**

**Grade 10**

**Full Year**

**1 Credit**

**Prerequisite:** None

**Subsequent Course:** Students who require a proficiency based diploma will need to take Ecology Course 536 concurrently or as the next course in sequence. The primary goal of Biology 522 is to develop a solid understanding of the processes of life allows students to make scientifically informed decisions related to their health and to the health of the planet. Students in biology will study life through such topics as homeostasis, cell biology, genetics, and evolution.

## **Honors Biology - Course 521**

**Grade 10**

**Full Year**

**1 Credit**

**Prerequisite:** Recommendation from freshman science teacher

The primary goal of Honors Biology 521 is to help students develop the kinds of thinking and problem solving skills that will enable them to understand the biological challenges of today and of the future. To understand topics such as extinction, gene therapy, antibiotic resistance to bacteria, cancer, and genetically modified organisms you must have a strong background in molecular biology and a genuine understanding of the practices of science. This course will provide you with this background and understanding. It will allow students to demonstrate proficiency in all of the life science learning targets through study of the following major content strands: Biochemistry, Cell Biology, the Molecular Basis of Heredity, Evolution and Biodiversity, and the Interdependence of Organisms. Honors Biology 521 has a heavier emphasis on molecular biology and covers material at a faster pace and in greater depth than Biology 522. There will be a focus on using case studies, data sets, and journal articles to explore biological phenomena as well as the comprehensive development of essay writing and lab reports. This course will be excellent preparation for Advanced Placement and College Prep/Honors Courses as well as science courses taken in college.

## **Advanced Placement Biology - Course 550**

**Grade 10, 11, 12**

**Full Year**

**2 Credits**

**Prerequisite:** 10th - B or higher in Physical Science 510 or 511 and recommendation from current science teacher. 11th & 12th - B or higher in Biology and Chemistry (chemistry may be taken concurrently) or teacher recommendation.

This course is intended to be equivalent to an introductory biology course found at the freshman university level. Students will cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes—energy and communication, genetics, information transfer, ecology, and interactions. The purpose and goals of this course are to present an in depth, college level study of the biological sciences, help learners develop college level critical thinking skills and study habits, and prepare for the comprehensive AP Biology examination. Up to eight hours of college credit can be earned.

## **Concurrent Human Biology (Anatomy) - Course 533**

**Grade 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Requires acceptance into Bridge Year Program

Students accepted into the Bridge Year cohort may be enrolled in Human Biology 100 through UMA. This biology course for non-biology majors explores fundamental biological concepts in science research, health and bioethics. Topics in human biology include organization and maintenance of the human body, overview of cardiovascular, lymphatic, digestive, respiratory, urinary, skeletal, muscular, nervous (with senses) endocrine and reproductive systems as well as genetics and biotechnology, cancer, human disease and evolution.

### **Concurrent Biology - Course 538**

**Grade 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Requires acceptance into Bridge Year Program

Students accepted into the Bridge Year cohort may be enrolled in Human Biology 110 through UMA. This course offers an introduction to the chemical and physical nature of biological processes intended for students who do not plan to major in biological science. Cell structure, metabolism, reproduction, inheritance, and evolution are examined in lecture and laboratory using a wide variety of plants and animals as examples and experimental models.

### **Applied Chemistry - Course 534**

**Grade 11, 12**

**1 Semester**

**1/2 Credit**

**Prerequisite:** None

In Applied Chemistry, students will learn how everything around them can be traced to incredibly small particles called atoms. Chemistry is the study of how atoms combine to form materials. By learning chemistry you gain a unique perspective on what things are made of and why they behave as they do. The major strands of Structure and Properties of Matter and Chemical Reactions will be presented in a way where students will demonstrate an understanding of concepts and then apply those concepts to real-life phenomena with little emphasis on calculations. This course is for students who want to be prepared for community college programs or who want to know more about the world around them.

### **College Preparatory Chemistry - Course 532**

**Grade 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Concurrent enrollment in Algebra 2 or higher.

Chemistry is the science that investigates the structure and properties of matter and its transformations. Topics covered create a foundation upon which students can build in future science courses. Laboratory investigations introduce fundamental topics and techniques designed to foster reasoning skills, creativity, and cooperative learning.

## **Advanced Placement Chemistry - Course 530**

**Grade 11, 12**

**Full Year**

**2 Credits**

**Prerequisite:** Recommendation of current science teacher, passing two years of science courses with grades of B or higher, and concurrent enrollment in Algebra 2 or higher.

AP Chemistry 530 is designed to be the equivalent of the general chemistry course usually taken during the first college year. Emphasis is placed on the theoretical aspects of chemistry and the curriculum closely follows the list of topics in the AP Chemistry course description. The course will prepare students for the AP Chemistry exam administered in May by the College Board. Participating colleges will grant credit and/or advanced placement to students who have done well on the exam. Up to eight hours of college credit can be earned.

## **Concurrent Chemistry - Course 532**

**Grade 11**

**Full Year**

**1 Credit**

**Prerequisite:** Requires acceptance into Bridge Year Program

Students accepted into the Bridge Year cohort will be enrolled in Chemistry 103. Chemistry of Everyday Living is a non-mathematical introduction to the basic principles of chemistry with an emphasis on chemistry relevant to everyday life. Topics will include nuclear, food, agricultural, drug, and cosmetic and polymer chemistry. This is a lab-based course that will form an important background for all students to be further developed at the college level. Emphasis is placed on classroom participation, laboratory techniques, technical writing and problem solving. Students in the Bridge Year Program maintain dual enrollment at Brewer High School and the cooperating university resulting in transcripts at both institutions. This allows students to earn college credit by taking college level courses at Brewer High School. Applications for the program are available in the spring of the sophomore year.

## **Applied Physics - Course 542**

**Grade 11, 12**

**1 Semester**

**1/2 Credit**

**Prerequisite:** None

Course 542 places primary emphasis on understanding and investigating concepts in physics through lab investigations and projects. Topics include: motion, gravitation, conservation of energy, the nature of matter, work, rotation, electricity and magnetism, and radiation. Laboratory investigations introduce fundamental topics and techniques designed to foster deductive reasoning, creativity and cooperative learning.

## **College Preparatory Physics - Course 541**

**Grade 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Passing two years of science courses and concurrent enrollment in Algebra 2 or higher

The topics covered by this course are: Newtonian Laws, motion, conservation of energy, work, gravitation, electricity and magnetism, and radioactivity. All of the topics mentioned above are treated in the laboratory as well as in class. Technical writing skills to communicate lab results and techniques in problem solving are emphasized in this course. Laboratory investigations introduce fundamental topics and techniques designed to foster deductive reasoning, creativity and cooperative learning.

## **Advanced Placement Physics I - Course 540**

**Grade 12**

**Full Year**

**2 Credits**

**Prerequisite:** Recommendation from current science teacher, passing two years of science courses and concurrent enrollment in calculus is preferred.

AP Physics 1 is designed to be the equivalent of the general physics course for science majors usually taken during the first semester of the first college year. Emphasis is placed on the theoretical aspects of physics and the curriculum closely follows the list of topics in the AP Physics 1 course description. This course focuses on algebra based physics problems. The course will prepare students for the AP Physics 1 exam administered in May by the College Board. Participating colleges will grant credit and/or advanced placement to students who have done well on the exam.

## **Ecology - Course 536**

**Grades 10, 11, 12**

**1 Semester**

**1/2 credit**

**Prerequisite:** Successful completion of biology

**Subsequent Courses:** Will help prepare student to take AP Environmental Science.

Ecology is the branch of science that deals primarily with how living things interact with both the biotic and abiotic parts of the environment. Students who take this class will study how ecosystems are organized and the roles that organisms have in those ecosystems. They will explore the delicate balances found within ecosystems regarding energy transfer and nutrient cycling. Students will compare the diversity of ecosystems on the planet and analyze how the abiotic factors of those ecosystems dictate the structure of biotic associations. Finally, students will study the dynamics of Earth's ecosystems and how disturbances can have both local and global implications.

## **Advanced Placement Environmental Science - Course 535**

**Grade 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Recommendation from current science teacher

AP Environmental Science is designed to be the equivalent of a one-semester, introductory college course in environmental science. The major topics of study include energy conversions that underlie all ecological processes, the Earth as an interconnected system and human impact on natural systems. The course will prepare students for the AP Environmental Exam administered in May by the College Board. Participating colleges will grant credit and/or advanced placement to students who have done well on the exam. Up to four hours of college credit can be earned.

## **Astronomy - Course 562**

**Grade 10, 11, 12**

**1 Semester**

**1/2 credit**

**Prerequisite:** None

Astronomy is a semester long course that will hit all learning targets under the Earth Science: Universe measurement topic. This project-based course meets every other day for a half a year.

## **Human Anatomy and Physiology - Course 560**

**Grades 11, 12**

**Full Year**

**1 Credit**

**Prerequisites:** Passing grade in Biology 522

Anatomy/Physiology is a study of the structure and function of the human body. The course is preparation for advanced biological studies, biomedical nursing, and other science based careers. Laboratory experiences and text based activities provide student learning in the following topics: the major body systems; how the body systems work together to provide homeostasis; body functions in the healthy and diseased states; blood typing; muscle action; cranial nerve functioning; and bioethics. Course Selection Survey & related information - please do not complete survey until you have instructions given during class.

## **Forensic Science - Course 561**

**Grades 11, 12**

**½ Credit**

**1 semester length**

**Prerequisite:** None

Forensic Science is a semester long elective science course to expose students to the science knowledge and methodology applied to law. Topics will focus around the types of evidence collected and used in forensic science.



### **STEM: Introduction to Engineering Design (IED) Course 645e**

**Grade 9, 10 and 11, 12 with IED instructor permission**

**1 credit**

**Full year**

**Prerequisite:** None

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software, and use an engineering notebook to document their work.

### **STEM: Principles of Engineering – Course 650e**

**Grade 10, 11, 12**

**1 credit**

**Full year**

**Prerequisite:** Passing score in IED or IED instructor permission

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation

### **STEM: Computer Science Essentials - Course 645c**

**Grade 9, 10, 11, 12**

**1 credit**

**Full year**

**Prerequisite:** None

With emphasis on computational thinking and collaboration, this year-long course provides an excellent entry point for students to begin or continue the PLTW Computer Science K-12 experience. Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence.

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

Computer Science Essentials helps students create a strong foundation to advance to Computer Science Principles, Computer Science A, and beyond.

## **STEM: Computer Science Principles - Course 650c**

**Grade 10, 11, 12**

**1 credit**

**Full year**

**Prerequisite:** Passing score in Computer Science Essentials AND teacher recommendation

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. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation. PLTW is recognized by the College Board as an endorsed provider of curriculum and professional development for AP® Computer Science Principles (AP CSP). This endorsement affirms that all components of PLTW CSP's offerings are aligned to the AP Curriculum Framework standards and the AP CSP assessment.

## **STEM: Principles of Biomedical Science (PBS) - Course 645b**

**Grade 9, 10 and 11, 12 with permission**

**1 credit**

**Full year**

**Prerequisite:** None

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.

This course meets the measure topics associated with our Biology 522 course: Life Science: Cellular Process Energy and Communication; Life Science: Cells and Organisms; Life Science: Heredity and Reproduction; Life Science: Human Body; Life Science: Biodiversity and Evolution

## **STEM: Human Body Systems - Course 650b**

**Grades 10 - 12**

**1 credit**

**Full year**

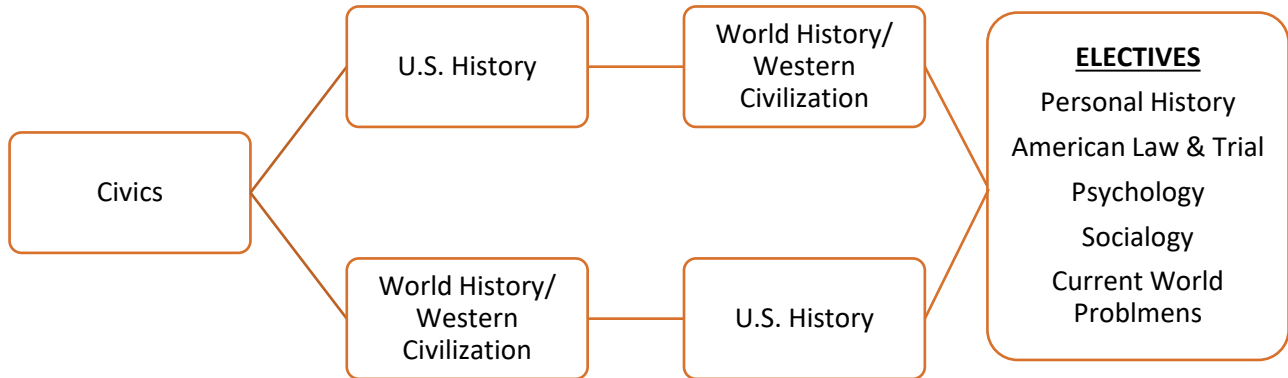
**Prerequisite:** Passing score in Principles of Biomedical Science or PBS instructor recommendation

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.

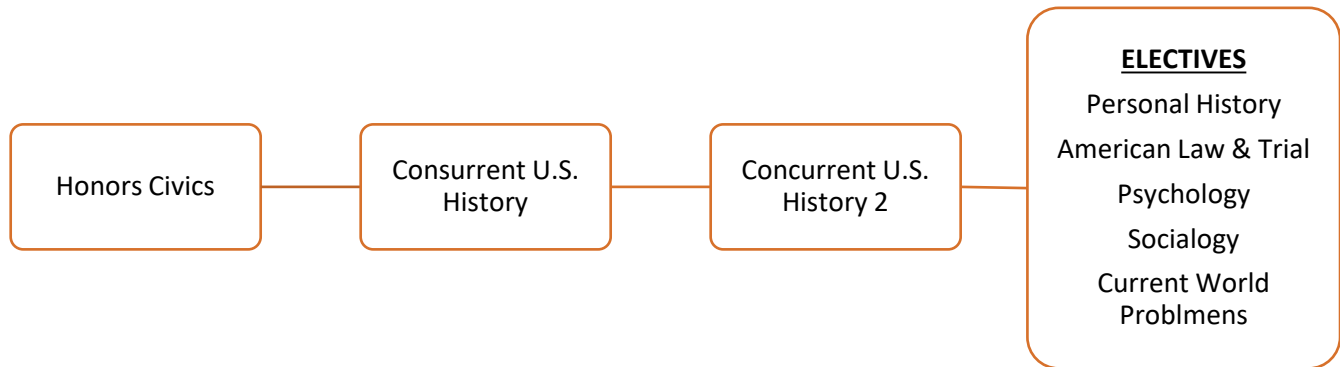
This course meets the measure topics: Life Science: Cellular Process Energy and Communication; Life Science: Heredity and Reproduction; Life Science: Cells and Organisms; Life Science: Human Body

# Social Studies

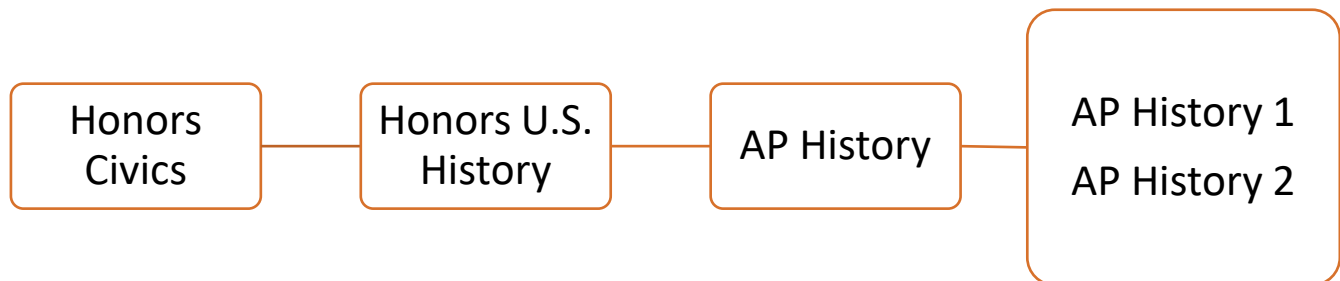
## College & Career Readiness



## Dual Enrollment



## Honors / AP Pathway



## **Civics – Course 211**

**Grade 9**

**Full Year**

**1 Credit, (Graduation Requirement)**

**Prerequisite:** None

This course is required in the freshman year. It is designed to develop civics skills, further develop reading skills and create a knowledge base that will enhance a student's ability to meet or exceed the Maine Learning Results Standards for government and basic economics.

The course content includes the types, purposes and functions of government and economic systems, basic principles and democratic foundations of our American government with an emphasis on the organization and functions of the three branches of the federal government. Individual rights and responsibilities provide a focus for this study.

## **Honors Civics - Course 210**

**Grade 9**

**Full Year**

**1 Credit Graduation Requirement (in place of regular civics)**

**Prerequisite:** Meets the requirements in the Honors Pathway Rubric

Honors Civics is designed specifically for those freshmen who truly excel in Social Studies and have demonstrated a keen understanding of and appreciation for government, politics and history. Excellent writing and reading comprehension skills are required for placement in this course. This course utilizes a senior-level American Government textbook and the class operates at a pace similar to the seniors' pace.

This course begins with an in-depth review of the formation of and underpinnings of American democracy, followed by an intensive study of the U.S. Constitution and Amendments. Major focus areas will include, but are not limited to, landmark U.S. Supreme Court decisions, civil rights, beliefs and behaviors of individuals and political parties, and the three branches of government at the federal level. Students will also be introduced to basic concepts in economics and business.

## **World History - Course 220**

**Grades 10-12**

**Semester Course**

**½ Credit**

**Prerequisite:** None

This course will survey world history, geography, economics, and government through the following time period investigations: The Beginnings of Civilization; The Growth of Civilization; The World in Transition; The Beginnings of the Modern World; The Expansion of the Modern World.

## **U.S. History - Course 232**

**Grade 10 and 11**

**Full Year**

**1 Credit, Graduation Requirement**

**Prerequisite:** None

The course is designed to examine major turning points in U.S. History and will include Westward Expansion, Native American Cultures, Age of Industry, World Wars, emergence of the U.S. as a superpower, the Great Depression, the New Deal Era, the Cold War and the impact of these events on the social, political and economic changes in the 1950's and the 1960's. Time permitting we will also examine the impact of situations including, but not limited to, the Counter Culture, Vietnam War, Watergate, and Reaganomics.

Research skills, group work, technology, oral presentations, critical thinking skills and the reading of text materials and other periodicals with homework assignments will be emphasized to optimize course learnings and learning styles. A textbook serves as the basic learning tool however, material will also be presented in a variety of other forms including technology and periodicals. At the conclusion of the course, students may participate in the Veterans' Interview Program that is held annually at the Cole Land Transportation Museum. Assessments may take a variety of forms including, but not limited to, essay writing, homework assignments, tests, presentations and projects.

## **Honors U.S. History - Course 230**

**Grades 10 and 11**

**Full Year**

**1 Credit, Graduation Requirement (in place of regular US History)**

**Prerequisite:** Honors Civics or current social studies teacher recommendation

This course will meet the Brewer High School United States History graduation requirement

Honors U.S. History is an advanced study of U.S. History. This course is for students who desire an in-depth study and quicker pace of U.S. History. This course makes more extensive use of supplemental readings and the interpretation of primary source documents than in the regular course; therefore, students will be asked to further develop their reading, thinking, and writing skills. The course is designed to offer students the opportunity to utilize analytical skills and factual knowledge to enhance their writing and rhetorical skills. Students who are considering AP U. S. History should take this course.

## **American Law and Trial - Course 208**

**Grades 10-12**

**Full Year**

**1 Credit**

**Prerequisite:** None

American Law and Trial is an introductory legal course which investigates many topics including criminal law, civil law, trial rules, court systems, juvenile law, discrimination, and search and seizure law. In addition to studying contemporary legal cases, students will be participating in such experiences as mock trials, visitation to area courts, and attending lectures with guest speakers. Students may also participate in the Officer Ride-Along Program that is offered in conjunction with this course.

## **Business Law - Course 648**

**Grades 11, 12**

**Semester**

**½ Credit**

**Prerequisite:** None (This course does not fulfill the technology credit required for graduation)

This course is designed for juniors and seniors wishing to further their knowledge on rights and responsibilities, planning a business career, or interested in a career in law enforcement. In addition, it provides all students with consumer information. We will also discuss, rights and responsibilities of minors, family law, employment discrimination, contracts, legal agreements, and liability of businesses and consumers. Guest speakers will be invited to share their expertise in various areas. Students also visit the Penobscot County Jail, Penobscot Regional Dispatch, and attend District Court for a day.

## **AP U.S. History - Course 231**

**Grades 11, 12**

**Full Year**

**1 Credit**

**Prerequisite:** Honors Pathway or recommendation of current social studies teacher

AP U.S. History is equivalent to two freshman college-level courses. A review of Pre-Columbian through Reconstruction is provided both at the beginning of the year and at the end of the year prior to the Advanced Placement exam. The intensive focuses are: post-Reconstruction, the Industrial Age, Populism, Progressivism and the Gilded Age, Nationalism, America's economic and military expansion in the 20<sup>th</sup> Century, the Great Depression, civil rights and rise of Conservatism. Students will take the AP U.S. History exam in May. AP U.S. History incorporates the tenets of the Common Core and Maine Learning initiatives.

## **Concurrent US History 1 - Course 246**

**Grade 11**

**Full Year**

**1 Credit Graduation Requirement (in place of regular U.S. History)**

**Prerequisite:** Teacher recommendation or acceptance into Bridge Year Program

There is a fee to take this course

Students may choose to participate in early college history courses beginning in the junior year. History 1 is the first in the series of two courses offered to students. Participation can occur through acceptance in the Bridge Year Program or through U.M.F.K's Rural U Program. The course begins with exploration of the New World in the 15th century and continues through to post Civil War Reconstruction. Particular emphasis is given to the Revolutionary War, development of a new nation and the development of the U.S. Constitution, westward expansion, and the Civil War. Students maintain dual-enrollment at Brewer High School and the cooperating university resulting in transcripts at both institutions. This allows students to earn college credit by taking college-level courses at Brewer High School. Applications for the Bridge Year Program are available in the spring of the sophomore year. Participation in the Rural U Program is based on recommendation of course teacher.

## **Concurrent US History 2 - Course 247**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisite:** Concurrent US History 1

History 2 is the second course in a series of two in United States History. As with History 1, participation in this course can occur through acceptance in the Bridge Year Program or through UMFK's Rural U Program. This course will begin with a study of the Second Industrial Revolution and continues through the 20th century. Emphasis will be given to World Wars I and II, the Great Depression, the Civil Rights Movement, and the United States economic growth throughout the 20th century. Students must have successfully completed History 1 in order to take this course. Credit is granted at Brewer High School and the cooperating university resulting in dual transcripts and grades. By participating in the Bridge Year Program or Rural U students are able to earn college credit while taking a college-level course at Brewer High School. **\*There is a fee to take this course**

## **Western Civilization - Course 222**

**Grades 10-12**

**Semester Course**

**½ Credit**

**Prerequisite:** None

Western Civilization is the study of developments which have shaped history and affected modern political, economic and social systems. The emphasis will be on the development of civilization and the evolution of modern nations from a Western perspective. The course will start with the "Beginnings of the Modern World" 1300 - 1560, covering the Renaissance and Reformation; European Expansion and the rise of the European State; Colonialism; World Wars I and II; the Cold War; and the New World Order in the present-day.

## **Personal History through Genealogy - Course 221**

**Grades 11 and 12**

**Semester Course**

**½ Credit**

**Prerequisite:** None

Personal History through Genealogy, is reading and writing intensive. Each student will be asked to develop a personal viewpoint, through research, on specific major historical events. After collecting facts from textbooks and periodicals and then interviewing two adults; (who have lived during those historical events or have knowledge of a family member's involvement,) they will have an opportunity to express their viewpoints in oral and / or written essay form. Students will also write an autobiography, a mini-biography and construct a family history book.

This, hands-on, classroom experience is intended to motivate students to learn as well as encourage the retention of the information studied. Each student will further develop their skills in writing, geography and history. Each activity will encourage written and oral communication, information-gathering, and evaluation skills. It is also intended to encourage an understanding of individual differences.

## **Psychology - Course 241**

**Grade 12**

**Semester Course**

**½ Credit**

**Prerequisite:** None

Psychology is a semester long course that introduces students to the vast and diverse science of psychology. Students will gain an understanding of why people think and act as they do as they explore the systematic and scientific study of the behavior and mental processes of human beings and other animals. Topics include; psychological methods, biology and behavior, learning, memory, intelligence, stress and health, psychological disorders, and theories of personality.

## **Sociology - Course 242**

**Grade 12**

**Semester Course**

**½ Credit**

**Prerequisite:** None

Sociology is a semester long course that introduces students to the disciplined scientific study of human society. Students will explore ways in which their individual lives are shaped by society. Some of the topics explored include: culture, socialization, groups and organizations, deviance, social class, social institutions, education, family and social changes.

## **Current World Problems - Course 243**

**Grade 11-12**

**Semester Course**

**1/2 Credit**

**Prerequisite:** None

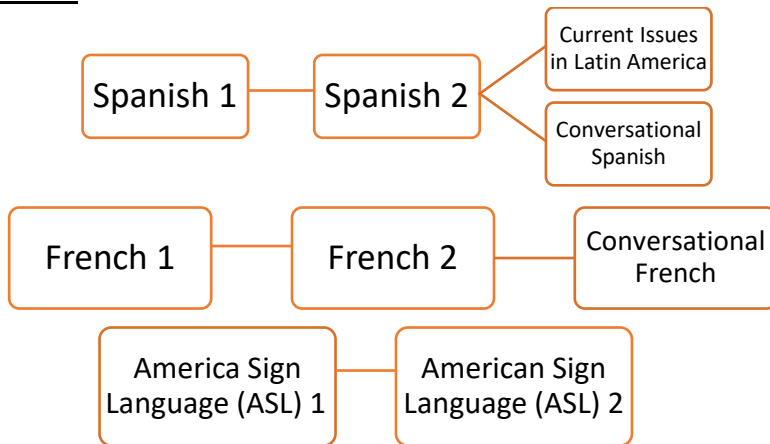
Current World Problems is a study of issues facing our nation and nations around the world. To achieve a greater understanding of the topics, the course will ask students to consider the history of these issues and how that history provides context for and continues to influence how nations manage these issues. Our focus will be determined by the major events as they are happening in the world. The course examines daily events as they unfold with a bi-weekly Current Event Conference.

The course employs The Choices Program, a curriculum developed by Brown University as the primary text with supplemental reading from a variety of sources including major newspapers, magazines and network programming. This program is designed to foster civic skills and participation with a focus on reading, writing, with a major emphasis on class discussions.

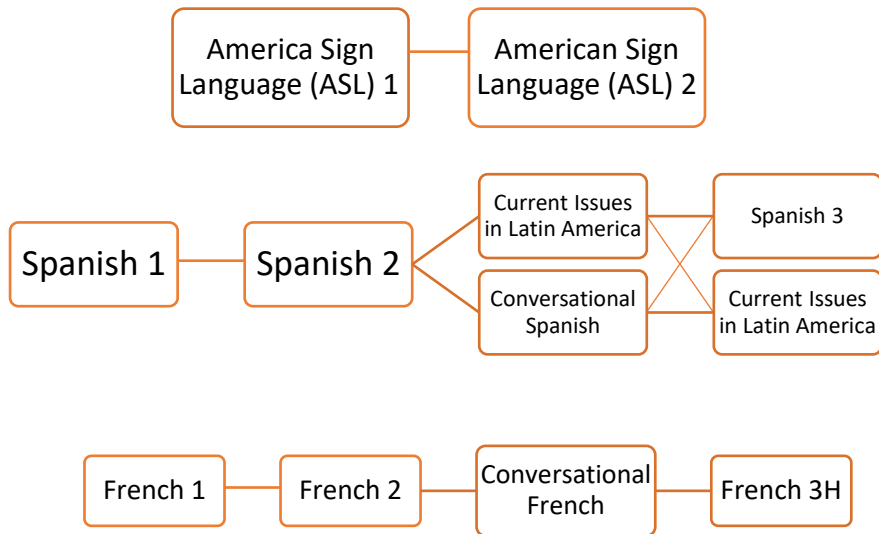


# World Languages

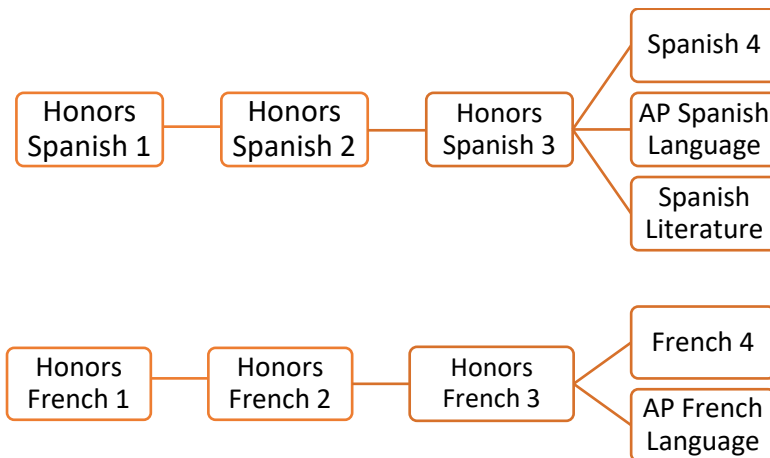
## College & Career Readiness



## College Prep



## Honors AP



## **French 1 - Course 310**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** None

Students in French 1 begin to speak, read and write through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use French as a means of communication within and beyond the classroom. Students will develop an understanding of the structure of the language and will have the skills and confidence necessary to converse and write about familiar topics and events, to ask and answer questions, and to compare people, things, or events using strings of sentences. They will investigate sports, school life, family life, recreation, hobbies, music and foods via in class readings and speaking activities. Cultural awareness will be enhanced by studying French speaking regions of the world. The course is conducted primarily in French.

## **Honors French 1 - Course 312**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** Meets the requirements of the Honors Pathway Rubric.

Students in French 1 Honors begin to speak, read and write through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use the language as a means of communication within and beyond the classroom. Students will develop an understanding of the structure of the language and will have the skills and confidence necessary to converse and write about familiar topics and events, to ask and answer questions, and to compare people, things, or events using strings of short sentences. They will be introduced to the people and culture of French speaking countries. They will investigate sports, school life, family life, recreation, hobbies, music and foods via in class reading and speaking activities. Cultural awareness will be enhanced by studying French speaking regions of the world. Students will cover more than the traditional French 1, at an accelerated rate with expanded vocabulary, grammar, and cultural experiences. Those completing Honors French 1 will, with teacher approval, be eligible for Honors French 2. The course is conducted primarily in French.

## **French 2 - Course 320**

**Grade 10-12**

**Full Year**

**1 Credit**

**Prerequisite:** French 1 or Honors French 1

French 2 students will continue to improve their abilities to use French through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use language as a means of communication within and beyond the classroom. Students will expand their knowledge of vocabulary, grammar and cultural aspects of the French speaking world, with a variety of performance based activities. The course is conducted primarily in French.

## **Honors French 2 - Course 322**

**Grade 10-12**

**Full Year**

**1 Credit**

**Prerequisite:** Honors French 1 or French 1 with instructor's permission

French 2 students will continue to improve their abilities to use French through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use French as a means of communication within and beyond the classroom. Students will expand their knowledge of vocabulary, grammar and cultural of the French speaking world, with a variety of performance based activities.

Students will be expected to cover more than traditional French 2 with the addition of more reading, listening and speaking activities, focusing on traditional ideals and current issues. The course is conducted primarily in French. Those successfully completing Honors French 2 will proceed to Honors French 3 or Conversational French

## **French 3 – Course 325**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** French 2 or Honors French 2

Students will continue to expand their proficiency in speaking, listening comprehension, written communication, reading through the three modes of communication; Interpretive, Interpersonal and Presentational. Students will also review and study advanced grammar topics. Students are expected to use language as a means of communication within and beyond the classroom. Cultural material will be presented and vocabulary expanded through selected readings in periodicals and online resources. The course is conducted in French. It is expected that students commit to the daily use of the language in class.

## **Honors French 3 - Course 330**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** French 2 or Honors French 2

Students will continue to develop their proficiency in speaking, listening comprehension, written communication and reading through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use French as a means of communication within and beyond the classroom. Cultural material will be presented and vocabulary expanded through selected readings in periodicals and online resources. The course is conducted primarily in French. It is expected that students commit to the daily use of the language in class.

After completion of Honors French 3, students may take Conversational French, French 4, or AP French Language with teacher approval.

## **French 4 - Course 342**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Honors French 3 or instructor's permission

French Four continues the development and use of conversational and grammatical skills through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use language as a means of communication within and beyond the classroom. Students will focus on building a more extensive and sophisticated vocabulary, with greater facility in the use of idiomatic expressions. Also emphasized is an ongoing awareness and understanding of issues affecting the Francophone world. This class is conducted in French.

## **AP French Language - Course 340**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Honors French 2, French 3 with instructor's permission

The AP French Language course syllabus has been approved by the College Board. AP French continues the development and use of conversational and grammatical skills through the three modes of communication; Interpretive, Interpersonal and Presentational. The course content is for students to continue to develop and master skills in oral and written communication, with emphasis on a high level of proficiency in understanding the spoken language and expressing ideas orally and in writing. Students are expected to prepare for the Advanced Placement exam in May.

## **Conversational French - Course 333**

**Grade 10-12**

**½ Credit or 1 Credit**

**Prerequisite:** 1 year of French or with instructor's permission

Conversational French offers novice and intermediate students of French useful practice in everyday communications. The conversations deal with everyday topics and situations in which students visiting a foreign country might find themselves. The culturally authentic conversations provide the student with invaluable preparation for a visit to a French speaking region of the world. The topics selected are based on student interests and current events. Students are expected to participate orally in group exercises, free conversations and directed dialogues. The assessments are mostly oral. The purpose of this course is to help students sharpen their communication skills, increase their vocabulary and give them the confidence and ability to converse in a foreign language.

NOTE: Ideally for a maximum achievement in a modern language, the department recommends this course along with second, third and/or fourth year level courses.

## **Spanish 1 - Course 311**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** None

Students in Spanish 1 begin to speak, read and write through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use Spanish as a means of communication within and beyond the classroom. Students will develop an understanding of the structure of the language and will have the skills and confidence necessary to converse and write about familiar topics and events, to ask and answer questions, and to compare people, things, or events using strings of sentences. They will investigate sports, school life, family life, recreation, hobbies, music and foods via in class reading and speaking activities. Cultural awareness will be enhanced by studying Spanish speaking regions of the world. The course is conducted primarily in Spanish

## **Honors Spanish 1 - Course 313**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** Meets the requirements of the Honors Pathway Rubric.

Students in Spanish 1 Honors begin to speak, read and write through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use the language as a means of communication within and beyond the classroom. Students will develop an understanding of the structure of the language and will have the skills and confidence necessary to converse and write about familiar topics and events, to ask and answer questions, and to compare people, things, or events using strings of short sentences. They will be introduced to the people and culture of Spanish speaking countries. They will investigate sports, school life, family life, recreation, hobbies, music and foods via in class reading and speaking activities. Cultural awareness will be enhanced by studying Spanish speaking regions of the world

Students will cover more than the traditional Spanish 1, at an accelerated rate with expanded vocabulary, grammar, and cultural experiences. Those completing Honors Spanish 1 will, with teacher approval, be eligible for Honors Spanish 2. The course is conducted primarily in Spanish

## **Spanish 2 - Course 321**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** Spanish 1 or Honors Spanish 1

Spanish 2 students will continue to improve their abilities to use Spanish through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use language as a means of communication within and beyond the classroom. Students will expand their knowledge of vocabulary, grammar and cultural aspects of the Spanish speaking world, with a variety of performance based activities. The course is conducted primarily in Spanish.

## **Honors Spanish 2 - Course 323**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** With instructor's permission

Spanish 2 Honors students will continue to improve their abilities to use Spanish through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use Spanish as a means of communication within and beyond the classroom. Students will expand their knowledge of vocabulary, grammar and cultural of the Spanish speaking world, with a variety of performance based activities.

Students will be expected to cover more than traditional Spanish 2 with the addition of more reading, listening and speaking activities, focusing on traditional ideals and current issues. The course is conducted primarily in Spanish. Those successfully completing Honors Spanish II will proceed to Spanish Three or Conversational Spanish

## **Spanish 3 Course 324**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Spanish 2 or Honors Spanish 2

Students will continue to expand their proficiency in speaking, listening comprehension, written communication, reading through the three modes of communication; Interpretive, Interpersonal and Presentational. Students will also review and study advanced grammar topics. Students are expected to use language as a means of communication within and beyond the classroom. Cultural material will be presented and vocabulary expanded through selected readings in periodicals and online resources. The course is conducted in Spanish. It is expected that students commit to the daily use of the language in class.

## **Honors Spanish 3 - Course 331**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Spanish 2 or Honors Spanish 2

Students will continue to develop their proficiency in speaking, listening comprehension, written communication, reading through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use language as a means of communication within and beyond the classroom. Cultural material will be presented and vocabulary expanded through selected readings in periodicals and online resources. The course is conducted primarily in Spanish. It is expected that students commit to the daily use of the language in class.

After completion of Spanish 3, students may take Conversational Spanish, Spanish 4, AP Spanish Language or AP Spanish Literature with teacher approval.

### **Spanish Literature - Course 351**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Spanish 3 or Spanish 4 with instructor's approval

Spanish Literature is a course designed to provide students with an intellectual challenge through the study of Spanish literature and language, and to provide them with an option to take an examination that measures achievement in the course.

### **Conversational Spanish - Course 334**

**Grade 10-12**

**½ Credit**

**Prerequisite:** 1 year of Spanish or with instructor's permission

Conversational Spanish offers novice and intermediate students of Spanish useful practice in everyday communications. The conversations deal with everyday topics and situations in which students visiting a foreign country might find themselves. The culturally authentic conversations provide the student with invaluable preparation for a visit to a Spanish speaking region of the world. The topics selected are based on student interests and current events. Students are expected to participate orally in group exercises, free conversations and directed dialogues. The assessments are mostly oral. The purpose of this course is to help students sharpen their communication skills, increase their vocabulary and give them the confidence and ability to converse in a foreign language.

NOTE: Ideally for a maximum achievement in a modern language, the department recommends this course along with second, third and/or fourth year level courses

### **Current Issues in Latin America - Course 337**

**Semester**

**½ Credit**

**Prerequisite:** Students must have completed Spanish I or Spanish II

This class will examine contemporary issues in the Spanish speaking world through music. The class will use music and music videos as a starting point for exploration of issues and problems confronting modern Latin America.

### **Spanish 4 - Course 343**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Spanish 3 or with instructor's permission

Spanish four continues the development and use of conversational and grammatical skills in all forms of communication, including speaking, listening, reading and writing. All grammar concepts from the previous years of study are reviewed and refined, with more attention on the exceptions to general rules than in previous study. Students will focus on building a more extensive and sophisticated vocabulary, with greater facility in the use of idiomatic expressions. Also emphasized is an ongoing awareness and understanding of issues affecting Spanish-speaking people throughout the world. This class is conducted primarily in Spanish.

## **AP Spanish Language - Course 341**

**Grade 11-12**

**Full Year**

**1 Credit**

**Prerequisite:** Spanish 3 with instructor's permission

Students will continue to develop their proficiency in speaking, listening comprehension, written communication, reading through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use language as a means of communication within and beyond the classroom. Cultural material will be presented and vocabulary expanded through selected readings in periodicals and online resources. The course is conducted primarily in Spanish. It is expected that students commit to the daily use of the language in class. After completion of Spanish 3, students may take Conversational Spanish, Spanish 4, AP Spanish Language or AP Spanish Literature with teacher approval.

## **American Sign Language 1 - Course 300**

**Grade 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** None

Students in American Sign Language 1 (ASL) begin to use sign language through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use ASL as a means of communication within and beyond the classroom. Students will develop an understanding of the structure of the language and will have the skills and confidence necessary to converse about familiar topics and events, to ask and answer questions, and to compare people, things, or events using strings of sentences. They will investigate sports, school life, family life, recreation, hobbies, music and foods via in class signing activities. Cultural awareness will be enhanced by studying Deaf Culture. The course is conducted in voiced English and ASL.

## **American Sign Language 2 - Course 301**

**Grade 10-12**

**Full Year**

**1 Credit**

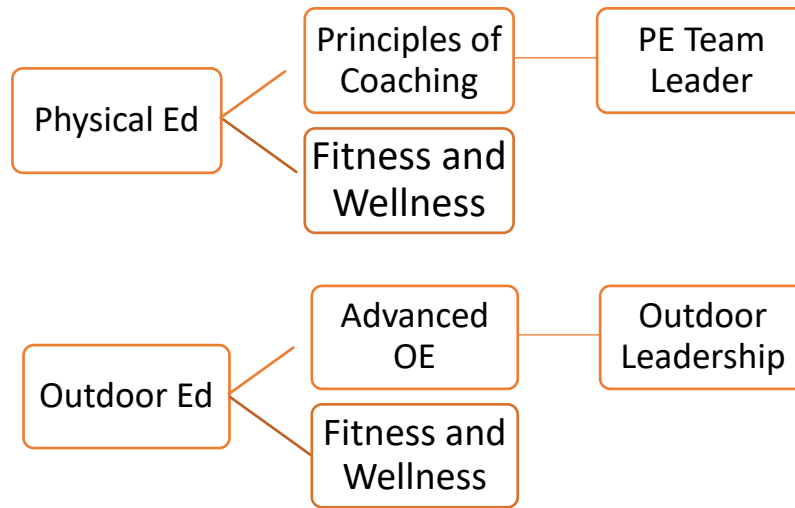
**Prerequisite:** ASL 1

American Sign Language 2 (ASL) students will continue to improve their abilities to use ASL through the three modes of communication; Interpretive, Interpersonal and Presentational. Students are expected to use ASL as a means of communication within and beyond the classroom. Students will expand their knowledge of vocabulary, grammar and cultural aspects of the ASL, with a variety of performance based activities. The course is conducted primarily in ASL.



# Wellness

All 9th grade students must choose which class they want to take (Outdoor Education or Physical Education)



All 10<sup>th</sup> grade students must choose which class they want to take



## **Physical Education - Course 001**

**Grades 9-12**

**Full Year/1 Credit**

**Prerequisite:** Students may not take both PE and OE in the same year for credit without permission from the department. Additionally, students who have already completed their PE requirement may not take this section again.

Physical Education consists of an introduction to personal lifelong fitness concepts, assessment of personal fitness levels, and development and implementation of a personal fitness plan based on each student's individual fitness level assessed by the Presidential Fitness Standards. Students will learn to navigate the Fitness Center with proper and effective use of the exercise equipment available at Brewer High School. Students will be introduced to and will participate in non-traditional individual, recreational and lifelong physical fitness activities. Upon completion of this course students will have a basic understanding of how to set up a fitness plan and the value of participation in lifelong physical activities. The course activities will include: Personal Fitness, Recreational Sports, Volleyball, Frisbee, Lifetime Activities and Team Sports

## **Fitness and Wellness - Course 014**

**Grades 10-12**

**Semester/1 credit**

**Prerequisite:** Successful completion of Phys Ed requirement through PE or OE.

Fitness and Wellness is a semester long course that will focus on students developing their own fitness plan and following it on a regular basis. This course offers an opportunity for students who are interested in training and physical fitness a chance to train under a structured and supervised program. Students will learn the physiological aspects of resistance training and then apply it to establish lifelong fitness habits. Students will learn to assess their fitness levels and change their programs as needed, as well as learn about the importance of nutrition, and how it affects their performance levels.

## **Principles of Coaching - Course 016**

**Grades 10-12**

**Semester/1 credit**

**Prerequisite:** Successful completion of Phys Ed requirement and teacher approval

Principles of Coaching is a semester long course that will be focused on students developing skills associated with becoming a team leader. Students will learn how to interact with their peers from a coaching standpoint, and will learn how to teach skills from a variety of activities. Students will learn different parts of what it takes to be a coach. This includes aspects of a practice, learning rules providing feedback on certain skills and developing a personal philosophy.

## **Physical Education Team Leaders - Course 004**

**Grades 11-12**

**Full Year/1 Credit**

**Prerequisite:** Physical Education requirement fulfilled and completed principles of coaching class; chosen by instructors.

Team Leaders will meet every other day for the year. This course is offered to students who show a strong interest in the physical education program and can offer leadership skills. Team Leaders will be selected on the basis of attitude, leadership skills, and knowledge of the information taught.

## **Health - Course 002**

**Grades 10-12**

**Every Day**

**Semester, ½ credit**

**Prerequisite:** None

Health must be successfully completed before graduation requirements can be fulfilled. Units are offered in these areas: personal health, nutrition, first aid, family life-relationships, communication, sexuality, mental health, preventing violence, chemical health and group problem solving. Many specialists, outside speakers,, and adventure based learning activities are used throughout the course. A brief overview of information covered in each unit is available in the curriculum manual in the high school Principal's Office for student and parent review.

## **Health Aide - Course 008**

**Grades 10-12**

**Semester, ½ credit**

**Prerequisite:** Successful completion of health class, interview with health teacher, and approval of health teacher/teachers if applicable and knowledge of the content and leadership qualities exemplified in health class

Health Aide is for students that express a desire to continue to further their knowledge and gain leadership skills. Students are expected to participate in activities, facilitate groups, and lead group discussions. Students are able to meet only every other day.

## **Outdoor Education - Course 005**

**Grades 9-12**

**Full Year**

**1 Credit**

**Prerequisite:** None

Outdoor Education provides an alternative to Physical Education for students interested in the outdoors and what it has to offer. Class is every other day and additional time outside of the school day. The high school's well known ropes course is used to develop team building, problem solving and decision making skills. Basic instruction is provided in the areas of orienteering, paddling, cross-country skiing, camping (fall, winter and spring), first aid and many other areas of interest involved with the outdoors. Responsible personal and social interaction skills are also stressed throughout the course.

## **Advanced O.E. - Course 007**

**Grade Level(s): 10-12**

**Full Year/1 Credit**

**Prerequisite:** Successful completion of Outdoor Education

The most important aspect of Advanced O.E. is involvement. Students must be willing to explore new activities and adventures. They need to participate on a daily basis. Students will learn to think outside of the box, problem solve, leadership, work to together, communicate, cooperate and much more. There will be a strong expectation to demonstrate and transfer the aforementioned skills. There is a great stress put on higher level thinking.

## **Outdoor Leadership - Course 006**

**Grade Level(s): 11-12**

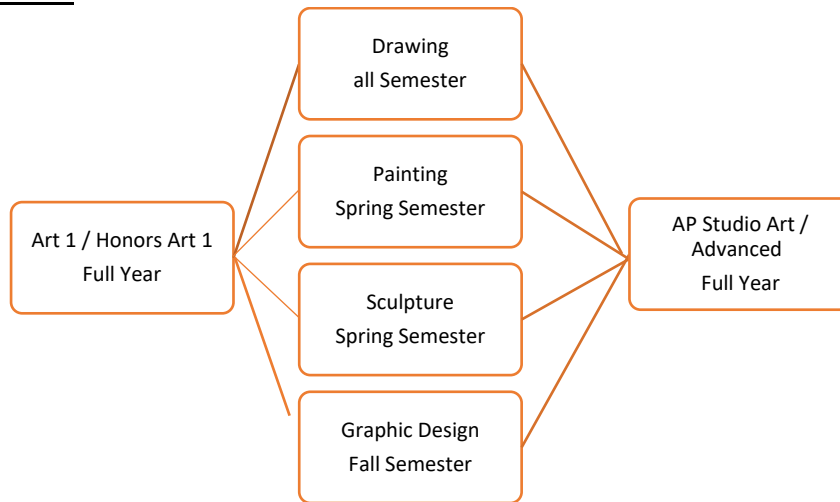
**Full Year/1 Credit**

**Prerequisite:** Chosen by instructors on the basis of attitude, leadership skills and recreational skills. OE Leadership does not fulfill the graduation requirement for PE.

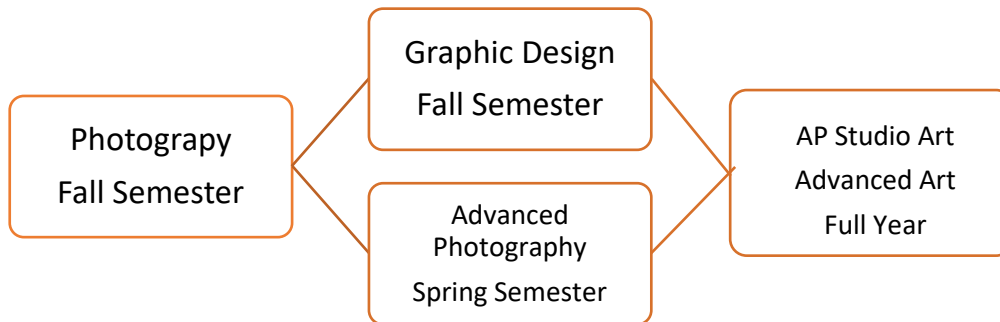
A full credit is offered to students who show a serious interest in the outdoor education program and can offer leadership skills in and outside of the classroom. Outdoor Leadership is a course offered every day and additional time outside of the school day! Leadership students are teaching assistants who also need to demonstrate knowledge of the information taught.

# Visual and Performing Arts

## Traditional Arts Path



## Digital/Media Arts Path



### Art 1 - Course 911

Grades 9- 12

Full Year

1 Fine Art Credit

**Prerequisite:** An interest in Art

Art 1 provides a broad introduction to studio art experiences which include drawing, painting, printmaking, sculpture & design. Students explore the purposes of art through experiential, and art historical learning experiences. Learners are introduced to group critiques, methods of selecting and preparing artwork for exhibition, and have opportunities to display their artworks in the classroom, school, and/or broader community. Evaluation is based on studio/ in-class artworks as well as sketchbook practices, artistic planning work, and written work such as self-reflections. Learners are expected to have a sketchbook and a pencil for their artistic process and planning work.

## **Honors Art 1 - Course 915**

**Grades 9-12**

**Full Year**

**1 Fine Art Credit**

**Prerequisite:** Meets the requirements in the Honors Pathway Rubric.

Honors Art 1 is for students who have shown both skill and a dedication to learning about art in middle school. The class includes: Drawing, Painting, Sculpture, Printmaking, Poster Design, and Contemporary Craft. This class encourages students to explore current art issues, and develop finished well framed art work. Class work covers the equivalent of 1 ½ years of art making. Students are encouraged to have good attendance and a willingness to work at an honors level. Honors Art allows students to explore several medias and subject matter in depth. Grades are based on class art making, regular homework, group discussions, readings, and a group service learning project. Students will build a portfolio of completed framed art pieces. Students will need to provide some art materials for home projects.

## **Drawing - Course 912**

**Grades 10-12**

**Semester**

**1/2 Fine Art Credit**

**Prerequisite Courses:** Honors Art 1 or Art 1

This semester-long, half-credit course is for students interested in developing a strong art portfolio. Students learn in a demonstration/studio based atmosphere. Second year fine art classes provide students with more opportunities to explore their personal interests. Students will explore elements of drawing through different drawing techniques, styles and material. This course emphasizes drawing not only as an art form and means of personal expression, but also as a way to increase visual literacy; understanding what and how we see. Along with art theory and art history, students will also learn ways to display art and will participate in school wide art exhibits. Student evaluation is based on in-class studio art, participation in class critiques, notes, portfolios and readings.

## **Sculpture - Course 913**

**Grades 10-12**

**Semester**

**1/2 Fine Art Credit**

**Prerequisites:** Art 1 or Honors Art 1

Sculpture is a semester-long, half-credit course where students explore the processes involved in creating three dimensional art. Art experiences will include clay as well as a variety of sculptural materials such as paper mache, plaster, cardboard, and wire. Students are expected to demonstrate technical skills and craftsmanship while using effective processes to understand, respond and reflect on artistic problems related to 3D media. Along with the art making, students will study 3D artists, cultures, and reasons why artists make art. Students are expected to display their work in the school and community.

## **Advanced Art - Course 916**

**Grades 11-12**

**Full Year**

**1 Fine Art Credit**

**Prerequisite:** Art 1/ Honors Art 1 and permission of Instructor - **Recommended:** Drawing and Painting

Advanced art is a yearlong course for junior and senior students interested in pursuing a career in the visual art field, who are highly motivated, or who would like to work toward preparing an AP portfolio. Students will have the opportunity to review and explore with a variety of media while working toward preparing an art portfolio. After a time of review and exploration, students will then develop a body of work that investigates an idea of personal interest to them. Motivation and maturity are important characteristics of Advanced Studio Art students. Students must be willing and able to work hard, both in and out of class.

## **AP Studio Art - Course 917/ 918**

**Grade 12**

**Full Year**

**1 AP Credit**

**Prerequisite:** Art 1/ Honors Art 1 and permission of Instructor, **Recommended:** Drawing and Painting

This class has considerable preparation over the previous summer.( Student complete three large artworks during the summer) interested students meet with the A.P. Art teacher prior to registration. Transfer students must show evidence that they are prepared for this class and be willing to do the summer assignments. This course is designed to encourage the development of creative and critical thinking skills in highly motivated and independent thinking art students. Students in this course have the opportunity to do college-level work and to possibly earn college credit while still in high school. Be successful students need to begin a strong understanding of art media, art skill and a good work ethic.

There is a considerable load of homework (3-4 hours each week). The exam contains three parts: Breadth, Concentration and Quality. The exams occurs daily during the class. There is not an end of the year written exam. Students work independently during 3 quarter on their concentration project. Students learn to develop appropriate goals, to be critical of their own and other people's work, to be willing to experiment and take risks, and to develop an increasingly complex art vocabulary. A.P. Art focuses on design concepts drawing, paint, and printmaking media. This class allows student to apply for the 2D design or Drawing portfolio.

## **Painting - Course 921**

**Grades 10-12**

**Semester**

**½ credit**

**Prerequisite:** Honors Art 1 or Art 1

This semester-long, half-credit course is for students interested in developing a strong art portfolio. Students learn in a demonstration/studio based atmosphere. Second year fine art classes provide students with greater opportunities to explore their personal interests. This course will have students explore many different types of painting and go in depth with control and skill building strategies with these materials. This course emphasizes painting not only as an art form and means of personal expression, but also as a way to increase visual literacy; understanding what and how we see. Along with art theory and art history, students will also learn ways to display art and will participate in school wide art exhibits. Student evaluation is based on in class studio art, participation in class critiques, notes, portfolios and readings.

## **Printmaking - Course 922**

**Grades 10-12**

**Semester**

**½ Fine Art Credit**

**Prerequisite:** Art 1, Honors Art 1

This semester-long, half-credit course introduces students to the many ways of creating groups or multiples of artworks. Students will be guided through a structural program which includes the historical, cultural and conceptual aspects of printmaking. Basic Elements of Art and Principles of Design will be stressed within print compositions. A variety of printmaking techniques will be utilized including digital prints, relief prints, mono prints, gelatin prints, simple etching, silkscreen, photocopy prints and stenciling. In order to succeed in this class, students must meet the required criteria for all assignments, question and critique their own work as well as the work of others, and approach each art process with a positive and open mind.

## **Graphic Design - Course 725**

**Grades 10-12**

**Semester**

**½ Fine Art Credit**

**Prerequisite:** Art 1, Honors Art 1

Graphic Design at BHS is a semester-long, half credit course. The course will focus on how we communicate through art and design. Students will expand upon their prior knowledge of the elements and principles of design, art media and techniques to generate unique solutions to two-dimensional and three-dimensional design problems. Students will utilize examples from the visual culture of marketing & advertising, multicultural art, textile, architecture, and functional objects.

## **Digital Photography - Course 728**

**Grades 11-12**

**½ Fine Art Credit**

**Semester**

Digital Photography is a semester long course offered at Brewer High School. This course will utilize photography as the primary media for student expression. Students will develop an understanding of the technical aspects of the camera, learn art concepts through the Elements of Art and Principles of Design, demonstrate basic knowledge of editing software, explore and discuss digital imagery in society, and create projects that yield individual creativity and personal expression in a final portfolio. Students will be given weekly shooting assignments within a variety of topics as well as be expected to take part in group and individual critiques of their work.

## **Advanced Digital Photography - Course 729**

**Grades 11-12**

**½ Fine Art Credit**

**Semester**

**Prerequisite and Subsequent Courses:** Digital Photography and permission of Instructor

Advanced Digital Photography is a semester-long, half-credit course designed for students who have a strong interest in photography and wish to improve their skills as well as study areas related to photography more extensively. Along with continued digital photography exploration, students will also be introduced to traditional darkroom photography. Students interested in this course should have successfully completed digital photography and should have a thorough understanding of the camera, photo editing programs and the Elements and Principles of Design as they relate to photography. Students taking this class will have the opportunity to build a quality digital portfolio and possibly submit for AP 2D Studio Art credit.



# Music

## **Concert Band - Course 930**

**Grades 9-12**

**Full Year**

**1 Fine Art Credit**

**Prerequisite:** Prior instrumental experience or permission from the instructor

The Concert Band provides an opportunity for students who play wind and percussion instruments to perform at many different school and community functions. The band rehearses and performs musical literature of varying styles and difficulty. The Concert Band may perform several concerts, festivals, parades, ceremonies and competitions throughout the year. The Concert Band rehearses on Orange days, block one only during the school year. The course continually builds on elements of music performance through challenging repertoire, rehearsal, and performance. Students will develop skills for self-improvement, teamwork, public presentation, and performance expectations throughout the year. Students are required to attend all scheduled performances during the year.

Students that have less than two years of playing experience need to take Instrumental Lab or private instruction for at least six months.

## **Concert Choir - Course 960**

**Grades 9-12**

**1 Fine Art Credit**

**Prerequisite:** Prior Choral Experience or Instructor Permission

Concert Choir is open to all students who have prior experience singing in a middle school or high school chorus. Participants in Concert Choir must be prepared to open themselves to a variety of music and to practice professional rehearsal and performance behaviors.

Participants who are new to Concert Choir will purchase performance attire through Southeastern Performance Apparel and will be required to wear this attire at public performances. Students will be required to participate in occasional fundraisers as organized by the Music Department and the Brewer Music Association. Over the course of the year, participating students learn/review basic mechanics of music ("music theory") through the use of printed music. Learning and performing choral literature in a variety of styles and languages and from various periods in history will enhance their knowledge of and appreciation for other cultures as well as for our own culture. Students are assessed through their punctual attendance at and appropriate behavior during any and all rehearsals/ meetings as a class and public performances, as well as through the use of occasional written quizzes and/or performance quizzes given during a scheduled rehearsal.

### **Jazz Ensemble - Course 937**

**Grades 9-12**

**Also functions as the primary band for Groove Factor**

**1 Fine Art Credit**

**Prerequisite:** Prior Jazz experience, audition; instructor's permission, must be enrolled in concert band or waiver

The Jazz Ensemble is a highly competitive class which meets on black days during block one. The course focuses on the history of music through listening, lecture, practice, and performance. Students are engaged in many different styles of jazz and will demonstrate their learning through public and adjudicated performances. Audition or instructor permission is required. Audition materials are available in the spring by contacting the music department. Auditions are held in the month of May and September. Students must also be enrolled in the concert band. This is a highly competitive course and students enrolled are required to participate in all performances. Performances include public concerts, district and state wide competitions, out-of-state competition, and performances at other schools. Students are encouraged to audition for Jazz All-State in the fall. Students are required to be enrolled in concert band or must apply for a waiver from the instructor.

### **Jazz Improvisation 101 - Course 935**

**Grades 10-12**

**2nd Semester**

**½ Fine Art Credit**

**Prerequisite:** Music Theory or instructor's permission

The jazz improvisation introduces the student to the art of soloing and music creativity. Students will learn how to improvise over every type of music and choral harmony. An in depth study of scale, chords, and extensions will be the focus of this class. This course is offered only for those students that have either taken music theory, or have written permission from the instructor, and play any of the following instruments: all wind, string, voice and mallet percussion. This course is ideal for the amateur and serious musician.

### **Jazz Improvisation 102 - Course 936**

**Grades 11, 12**

**1/2 Fine Art Credit**

**2nd Semester only**

**Prerequisite:** Jazz Improvisation 101 or instructor's permission

Designed to increase the skills of the student learned in Jazz Improvisation 101.

### **Music Theory - Course 950**

**Grades 10-12**

**Full Year**

**1 Fine Art Credit**

**Prerequisite:** Two years musical performance background or instructor's permission

This course covers all elements of music from basic note and rhythm reading to harmonic and melodic analysis of musical form.

## **American Music - Course 951**

**Grades 9-12**

**2nd Semester**

**1/2 Fine Art Credit**

**Prerequisite:** None

The American Music course is an appreciation of music in America. Topics include colonial music, music of the revolutionary war, music in war, and music through the 20<sup>th</sup> century. Other topics include, but are not limited to; music of the military and its history, John Phillips Sousa, and other march composers, ragtime and early jazz, the influence of African-American in blues and jazz. The class will also cover country, rhythm and blues, folk, rock, and other popular styles of music. Music in television, Broadway, and film, will be included as well.

In addition to the music, famous composers and significant events in history will be discussed. This course is open to any student and there are no prerequisites.

## **Introduction to Guitar - Course 952**

**Grades 9-12**

**Semester**

**½ Fine Art Credit**

**Prerequisite:** None

Introduction to guitar is a hands-on, student-centered, course focusing learning how to play and appreciate the guitar. Students will learn how to tune, play all open chords, barre chords, simply picking and rhythm patterns, and songs. Students will immediately be able to apply skills and concepts after each class.

### **Required Materials:**

Students will need an acoustic guitar. Students may use an electric guitar but will need to supply a small practice amp. An acoustic guitar is preferable due to the tonal quality and development of finger dexterity and sound. Other Materials: 3 ring binder, Pencils, Guitar picks, Guitar Strap

## **Digital Audio and Live Sound Reinforcement - Course 962**

**Grades 11-12**

**Full Year**

**1 Fine Art Credit**

**Prerequisite:** None

The Digital Audio course is a rigorous, in-depth, hands-on experience. Students will learn all aspects of basic and intermediate audio to include live sound and studio recording. Students will also work at the performing arts center at events throughout the school year in a variety of areas. Students **MUST** have the ability to get to and from events. This course requires students be able to attend functions and classes outside of the school day.

Students will have opportunities to act as both audio and lighting tech at many events, be involved in stage management, and act as producers, and other behind the scenes activities. Students will also record both audio and video for commercial use. Students will use state-of-the-art sound and lighting equipment and software. This course prepares students for post-secondary school in sound, mixed media, and communications.

## **Sports band (The Groove Factor) - Course 932**

**Grades 9-12**

**Pass/Fail**

**1/2 Fine Art Credit**

**Prerequisite:** Instructor's permission (can be a non-band member)

The Sports band performs at various athletic events throughout the school year. Students do not need to be in a performing group to participate. This group performs rock, blues, and other fan favorites. The group begins two weeks before the start of the school year and rehearses during the fall, usually one evening per week. Instrumentation is limited and students are encouraged to contact the music department for more information. Students can earn their varsity letter after two seasons of performance.

During the school year there are more opportunities for student performance. These include saxophone ensemble, brass quintet, flute trio, brass ensemble, percussion ensemble, ceremonial band, and many others. The music department is also proud to offer performance opportunities like Jazz Café, recital night, and other performance venues.

## **Instrumental Lab - Course 933**

**Grades 9-12**

**One Semester**

**1/2 Fine Art Credit**

**Prerequisite:** None

Instrumental lab is a music exploratory course where students will have a hands on approach and instruction in learning a new instrument, basic music theory, and music appreciation. This course is designed for students that do not currently play a woodwind or brass instrument, would like to learn a secondary instrument, and those students that may not have played an instrument for over a year, or less than two years.

Students will need to have one of the following instruments: Flute, Clarinet, Saxophone, Trumpet, Trombone

Students that do not have access may rent one from a local music vendor. Information on rental will be provided during the first week of class. The music department currently uses two vendors that rent instruments. The music department does have a limited supply of instruments that are available on a priority basis.

## **Honors Instrumental Music - Course 934**

**Grade 12**

**1 Fine Art Credit**

**Prerequisite:** 3 years of satisfactory performance in the music program (2 years instrumental)  
Enrolled in concert Band

This course is an extension of the instrumental program for the senior musician. This course is concurrent with both concert band and jazz ensemble. Students will be required to prepare and audition for All-State or Jazz All-State, organize and facilitate sectionals or other small group rehearsals, and complete a senior project consisting of either a research paper or recital. This course fulfills the Honors Diploma Senior Exhibition requirement for Honors Diploma Seniors.

# Technology

## **Integrative Technology - Course 632**

**Grade 9**  
**Full year**  
**½ Credit**  
**Required**

This course is designed for first year students to acquire a working knowledge of their school issued Chromebook and the Google Applications they will use throughout their high school career. Students will also be learning about becoming educated and responsible digital citizens.

**\*Fulfills Computer Literacy Requirement**

## **Computer Applications I - Course 633**

**Grades 10-12**  
**Full year**  
**1 Credit**  
**Prerequisite: None**

This course is designed to provide all students in grades 10 - 12 the opportunity to expand their knowledge and communication skills in creating, designing, editing, and formatting professional documents using Microsoft Office--Word, Access (database), Excel (spreadsheet), and PowerPoint. Assignments will include the production of intermediate word processed documents including reports/term papers, business and personal letters, career exploration, and resume writing. Also, file management and basic internet searching skills will be touched upon. A student's organizational skills will be enhanced by the development of a portfolio of student's work.

**\*Fulfills Computer Literacy Requirement**

## **Computer Applications II - Course 642**

**Grades 10-12**  
**Full Year**  
**1 Fine Arts credit**  
**Prerequisite:** Integrative Technology, Computer Apps 1, or Instructor's permission

The purpose of this course is to develop further the skills learned in Integrative Technology with emphasis on advanced Microsoft Office concepts. Microsoft Office is an integrated program which includes Word, Excel (spreadsheet), and PowerPoint. In addition to the above, computers will be used to teach graphics, troubleshooting, multimedia, and desktop publishing. Enhanced information seeking skills using the Internet will also be covered. Other software will be explored as time permits.

As a Community of Caring project, we will assist teachers and other staff members in completing projects. Students will be using skills already mastered to be of assistance to the school community. This class will pair up with an elementary class as pen pals to give support with technological needs throughout the year.

**\*Fulfills a Computer Literacy Requirement**

### **Web Page Design - Course 638**

**Grades 10-12**

**Full Year**

**1 Fine Arts credit**

**Prerequisite:** None

Students enrolled in Web Design will construct and maintain web pages using the scripting language of HTML. By incorporating sound, animation, text, and graphics, students will learn how to best design a website for visual attractiveness while maintaining ease of navigation. Projects will stress the importance of meeting deadlines and communicating with others to produce real-life web designs.

### **Advanced Web Page Design - Course 649**

**Grades 11-12**

**Full Year**

**1 Fine Arts Credit**

**Prerequisite:** Web Page Design

Advanced Web Page Design students will learn how to add solid design and interactivity to web sites using Dreamweaver software, which incorporates graphic features through Fireworks and Flash. Dreamweaver combines sophisticated design tools with an easy-to-use interface. They will supplement with CSS materials. Students will design websites for various community businesses.

### **Multimedia Design - Course 639**

**Grades 10-12**

**Full Year**

**1 Fine Arts Credit**

**Prerequisite:** None

This year-long course will cover many different aspects of computer generated multimedia productions. It will include sections on PowerPoint, Publisher, Fireworks, Flash, Adobe Premier, and Windows Movie Maker. This course allows students to design, create, and compose professional multimedia presentations. The material will be covered using interactive instruction along with single and group projects. Students will learn to incorporate sound, video, graphics, digital imagery, text, and animation into their multimedia presentations.

# Additional Options

## Internships

**Grades 11, 12**

**Semester or full year**

**½ or 1 Credit**

**Prerequisite:** A student contract must be developed and permission from parent and principal are required.

Internships are one of the best ways for a student to learn about the world of work. Juniors who have an interest in a particular area can meet with their guidance counselor to explore the value of an internship for their senior year. These internships are volunteer experiences in local businesses or schools. A minimum commitment of six hours per week is required for a full credit year-long internship. Supervisors at the “job” site complete an evaluation provided by the Guidance office on a quarterly basis. Grading will be done as Pass/Fail. It is not intended that an internship would replace an academic course needed for post-secondary education; rather it would supplement a student’s high school program and clarify career direction. Recent seniors have explored careers in education, emergency medicine, radiography and journalism/broadcasting.

## Introduction to Forestry Management - Course 089

**Grades 11-12**

**Semester**

**Credit .5**

**Prerequisite:** None

The fundamental purpose of this yearlong course is to provide students with an opportunity to learn about and experience the Forestry Industry and the opportunities it provides for employment in Maine. Students will explore Forest Management Standards in the areas of Silvics, Land Measurement and Mapping, Forests Measurement, Multiple Use Management, Harvests and Regeneration, Inquiry and Problem Solving, Scientific Reasoning, Communication and Implications for Forest Management. Beyond the classroom experiences students will be engaged with the natural setting of Forestry Management, They will be spending time applying skills learned in the Maine woods. In addition to the application of skills in the great outdoors students will meet with and learn from those who have chosen professions in the Forestry Industry. The exposure to multiple aspects of the industry will allow students to explore potential options for their own futures.

## Introduction to Forestry Management II - Course 096

**Grade 12**

**Semester**

**Credit .5**

**Prerequisite:** Introduction to Forestry Management and instructor permission

This course is a continuation of skills learned in Introduction to Forestry Management.

## **Senior Exhibition**

**Grade 12**

**Fine Arts**

**1 credit**

**Prerequisite:** Must be in Honors Diploma Program

The Senior Exhibition is one of two options fulfilling the senior requirements for the **Honors Diploma Program** (the other being the Senior Seminar). The Senior Exhibition allows students to pursue independently an area they find especially interesting. The Senior Exhibition consists of two parts: the research paper and the presentation. Research proposals are due in April of the junior year. Students will be assigned a community expert who will work closely with them, providing resources and guidance. The research paper will be due by December 1<sup>st</sup>. The research findings will be presented during the second semester. This course will count as a Fine Arts credit.

## **Senior Seminar**

**Grade 12**

**Fine Arts**

**1 credit**

**Prerequisite:** Grade 12 students only. Successful completion (grade B or higher) of an honors or AP English course.

This course is one of two options for fulfilling the senior requirement for the **Honors Diploma Program** (the other being a Senior Exhibition Project). The course will use an interdisciplinary approach to study eight individuals in history from the Italian renaissance to the United States civil rights movement. Units on each individual will last 3-4 weeks and students will read primary source documents, listen to lectures on audio podcasts, attend weekly Socratic seminars, and submit a written paper at the end of each unit. The course will be supported by a website as well as cultural experiences such as concerts, plays, lectures at colleges, and field trips. There will be a time commitment outside the school day for the cultural experience as well as the seminar which meets at 7:00-7:45 AM on Fridays. The course qualifies as a fine arts credit and will be graded passing with honors, pass, fail. The course will be limited to fifteen students, with honors diploma students receiving first consideration.



# Special Programs

## Air Force Junior Reserve Officer Training Corps Program (AFJROTC)

### Air Force JROTC Course 830-5

**Grade 9 -12**

**Full Year**

**1 Elective Credit**

**Prerequisite:** Voluntary enrollment. Willingness to maintain dress and appearance standards, and participate in cadet corps activities.

The mission of the AFJROTC program is to “Develop citizens of character dedicated to serving their nation and community.” The goals of the AFJROTC program are to instill: values of citizenship, service to the United States, personal responsibility, and a sense of accomplishment.

The objectives of AFJROTC are to educate and train students in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character and self-discipline through education and instruction in air and space fundamentals and the Air Force's core values of "Integrity First, Service Before Self and Excellence In All We Do."

The curriculum is divided into three parts:

- Aerospace Science (AS is 40% of the curriculum) study includes the history of aviation, cultural studies of major world regions, science of flight, space exploration, survival and corps management.
- Leadership Education (LE is 40% of the curriculum) offers students many opportunities to shape their character. Students will learn about character development while many character-building topics are discussed. Elements of good citizenship are instilled in students.
- Physical Training (PT) and Wellness (PT is 20% of the curriculum) is an official and integral part of the Air Force Junior ROTC program. The objective of the PT Program is to motivate cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives. The 40/40/20 curriculum is accomplished by blending classes with 9-12<sup>th</sup> graders so there is a good mix of experience levels. This provides more senior cadets with ample opportunity to teach, train, and mentor less experienced cadets.

The curriculum changes every year so there is no duplication (first-year cadets always receive the intro material which may be taught by senior cadets). Cadets are expected to take “ownership” of the Cadet Corps. This is demonstrated by planning, organizing, delegating, briefing, and executing a multitude of requirements. Brewer High School has the unique privilege of a certified pilot as one of their instructors with a full-immersion, Cessna 172, flight simulator in the basement. After school Aero Club meets once a week and there is an opportunity to take AS 500: Aviation Honors Ground School. Several opportunities exist for cadets of all experience levels to take part in. These include Color Guard, Saber Team, and Air Rifle Team. Community service is fun and rewarding, and cadets volunteer at Bangor Humane Society, parades, Wreaths Across America, Walks to End Alzheimer’s and Pancreatic Cancer, and the USMC Toys for Tots.

## **Alpha Program**

Students occasionally require a different learning environment than the traditional classroom. The ALPHA program is an alternative educational program for students who would otherwise attend Brewer High School. Students are provided with an alternative educational environment that includes individualized experiences, personalized learning and a flexible schedule. A sense of community is also fostered in the ALPHA program.

## **Special Education**

The Special Education program at Brewer High provides for the needs of students who have been identified with an education-related disability as defined by Maine and federal guidelines.

The goal is to help students overcome learning difficulties in order to achieve success both in high school and beyond. To do this, students are encouraged to work to their fullest capacity and develop the work habits that will be needed in their adult lives. Most academic courses taken through the Special Education Department are credited toward graduation requirements.

Specific courses offered to students in the Special Education Department will be decided through the Individualized Education Team process. In general, academic classes will focus on basic skills such as improving reading and writing skills and math skills. Other subject areas on various levels may be offered as needed.

## **Transitional Advantage Program (TAP)**

The Transitional Advantage Program is designed to assist students who are faced with significant challenges. There is extensive focus upon activities of daily living, and work experiences as they pertain to each individual. Our intent is to transition students from high school into meaningful and productive post-secondary situations. As they transition through their high school years, students will engage in skill development initiatives and improve their ability to self-advocate. This will enhance their chances of attaining residential, community, and/or vocational opportunities that best match their needs and desires. Accomplishing these goals typically involves the collaboration of a strong team – students, parents, teachers, support staff, friends, adult agency providers, and community organizations.

Courses offered through the Transitional Advantage Program will include, but are not limited to, Functional Academics (i. e. English, math, science and social studies), life skills, and work experience opportunities. The status of the transitional diploma vs. a certificate will be determined on an individual basis according to each student's Individual Education Plan (IEP).

## **Jobs for Maine’s Graduates (JMG)**

### **Jobs for Maine’s Graduates (JMG) - Course 090**

**Grade 9 -11**

**Full Year**

**1 Credit**

**Prerequisite:** Specific permission, interview, application and recommendation from guidance, JMG specialist, other teacher/staff member

Jobs for Maine’s Graduates (JMG) is a career development course with four main goals: leadership development, civic awareness, social awareness and career exploration. Students achieve these goals by participating in community service projects, fundraising, guest speakers, field trips, and in class projects. Students will also build after high school survival skills including job attainment, job survival, leadership training, financial literacy, self-development and personal skills.

### **Jobs for Maine’s Graduates (JMG) II - Course 094**

**Grade 12**

**Full Year**

**1 Credit**

**Prerequisite:** Specific permission, interview, application, and recommendation from guidance, JMG specialist, or other teacher/staff member

Jobs for Maine’s Graduates (JMG) is a career development course with four main goals: leadership development, civic awareness, social awareness and career exploration. Students achieve these goals by participating in community service projects, fundraising, guest speakers, field trips, and in class projects. Students will also build after high school survival skills including job attainment, job survival, leadership training, financial literacy, self-development and personal skills. JMG II focuses on life after high school, including graduation, post-secondary education options, work & military options. Seniors are required to participate in a 12 month follow up portion, maintaining communication with the JMG specialist after graduation.

### **College 101 – Course 093**

**Grade - seniors only**

**Semester 1 only**

**.5 credit**

**Prerequisite: None**

**Pass/Fail**

This course will give students applying to a two or four year college an opportunity to focus on the college application process during the fall semester. With a step-by-step, in-class approach, students will engage in in-depth research and learn what it takes to navigate the overwhelming application process; students will engage with guest speakers that are relevant to the topic; students will be guided through the financial aid process; and by the end of the course have a clear understanding of how to be successful in the college setting.

## United Technologies Center (UTC)

Brewer High School is one of seven public high schools participating in technical education programming offered at United Technologies Center, 200 Hogan Road in Bangor. Students attending UTC (Maine's premier technical high school) have an opportunity to increase academic achievement while learning industry standard technical skills. Through these career exploration experiences, students are better able to choose appropriate post-secondary school and career paths.

**College credits** through the Dual Enrollment program are offered at minimal cost along with Articulation Agreements with a large number of colleges and universities throughout Maine. Many students get a **“jump on college”** by earning anywhere from 6 to 12 transferable college credits over a 1 or 2 year period. (Transferability may depend upon the post-secondary school and/or major in some cases.)

Students attend UTC for a half day (morning or afternoon session) and complete other academic requirements, participate in extracurricular activities and school life the other half of the day. United Technologies Center is accredited by the New England Association of Schools and Colleges, Commission on Technical and Career Institutions.