



Joel Barlow High School

2025-2026



PROGRAM OF STUDIES

Joel Barlow High School

We Value...

We, the community of Joel Barlow High School, believe in a rigorous, dynamic education that respects the diversity of student aspirations. Through an open and active exchange of ideas, we seek to promote values, knowledge, and skills that foster meaningful inquiry, personal integrity, individual well-being, global citizenship, and continuous independent learning.

We Believe ...

"Education is not the filling of a pail, but the lighting of a fire."

– William Butler Yeats

The measure of an education, that which will sustain learners beyond Joel Barlow High School, is the vital exchange between educators and students. We hold to the tenets of that exchange: the stimulation of the intellect, the cultivation of independent inquiry, the fostering of thoughtful behavior, a sense of wonder, the quest for truth. By using their minds well, all students will have opportunities to appreciate the triumphs, frustrations, and incongruities of the human spirit.

We Expect...

Complexity	Community	Communication
Students, as creative problem solvers, will sustain active inquiry, apply prior knowledge, and take risks as critical thinkers.	Students will live as active and informed citizens, collaborate effectively toward common goals, treat others with respect, and assume responsibility for their own lives.	Students will demonstrate proficiency and fluency in their ability to meet the literacy demands of an interconnected world.

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Engineering, Math and Business

Meg Murphy- Science, Technology,
Engineering, Math and Business

Lori Estes- Science, Technology, Engineering,
Math and Business

Kristen Fallo- Wellness, Health, and Physical
Education

Ralph Giordano- Humanities

Carolyn Huminski- Humanities

Christopher Poulos- Humanities



Welcome from the Head of School

Mario Almeida, Ed.D., Assistant Superintendent, Head of School



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Graduation Requirements– **Classes of 2027, 2028, and 2029**

Students must acquire 50-semester credits to graduate. Credits are to be distributed as shown below:

	Humanities – 18 credits	
	English	8 credits
	Social Studies Includes: Our Western Tradition– 2 credits American Gov't – 1 credit Non-Western Elective– 1 credit US History– 2 credits	6 credits
	Fine Arts 	1 credit
	Humanities Electives	3 credits
	World Language– 2 Credits	2 credits
	STEM – 18 credits	
	Math	6 credits
	Science Includes: Life Science– 2 credits Physical Science– 2 credits Science Elective– 2 credits	6 credits
	Applied Art 	1 credit
	STEM Electives	5 credits
	Wellness – 4 credits	
	Wellness 9 or I	2 credits
	Wellness 10 or II	1 credit
	Wellness III	1 credit
	Financial Literacy – 1 credit Fulfilled through: Personal Finance, Economy in a Global Age, or Intro. to Business Introduction to Business fulfills this requirement starting with the 24-25 school year.	1 credit
	General Electives (any additional courses) – 7 Credits	7 credits
Total		50 Credits

Graduation Requirements- **Class of 2026**

Students must acquire 50-semester credits to graduate. Credits are to be distributed as shown below:

	Humanities - 18 credits	
	English	8 credits
	Social Studies Includes: Our Western Tradition- 2 credits American Gov't - 1 credit Non-Western Elective- 1 credit US History- 2 credits	6 credits
	Fine Arts 	1 credit
	Humanities Electives	3 credits
	World Language- 2 Credits	2 credits
	STEM - 18 credits	
	Math	6 credits
	Science Includes: Life Science- 2 credits Physical Science- 2 credits Science Elective- 2 credits	6 credits
	Applied Art 	1 credit
	STEM Electives	5 credits
	Health/PE Wellness - 5 credits	
	Wellness 9	2 credits
	Wellness 10	1 credit
	Wellness 11	1 credit
	Wellness 12	1 credit
	General Electives (any additional courses) - 5 Credits	5 credits
	Mastery-Based Diploma Assessment- 2 Credits	2 credits
Total		50 Credits

Mastery-Based Credit Requirements- Class of 2026

The Mastery-Based Learning credit is described by the CT State Department of Education as one credit "toward meeting the high school graduation requirements upon the successful demonstration of mastery of the subject matter content described in this section achieved through educational experiences and opportunities that provide flexible and multiple pathways to learning, including cross-curricular graduation requirements, career, and technical education, virtual learning, work-based learning, service learning, dual enrollment, and early college, courses taken in middle school, internships and student-designed independent studies, provided such demonstration of mastery is in accordance with such state-wide subject matter content standards."

ACADEMIC

Complexity/Communication/Critical Thinking

(1 Credit)

Students must demonstrate mastery in the four-starred competencies.

*Writing: Earn a score of 4 or above on Barlow's Junior Writing Portfolio. Students are allowed to rebuild and resubmit to demonstrate growth toward mastery.

*Mathematics/Numeracy: Meet one of the options below:

A. Standardized test performance:

- a. Achieve a score of 480 or better on the 10th grade PSAT, or
- b. Achieve a score of 510 or better on the 11th grade PSAT, or
- c. Achieve a score of 530 or better on the Mathematics SAT, or
- d. Achieve a score of 22 or better on the Math ACT, or

B. Achieve a grade of 70% or higher on the June final examination for a Grade 11 Mathematics course.

C. Achieve successful completion on a department-developed assessment in math.

*Evidence-Based Reading: Meet one of the options below:

A. Standardized test performance:

- a. Achieve a score of 430 on the 10th grade PSAT, or
- b. Achieve a score of 460 or better on the 11th grade PSAT, or
- c. Achieve a score of 480 or better on the SAT, or
- d. Achieve a score of 18 or better on the ACT, or
- e. Earn a grade of 70% or higher in English IV.
- f. Achieve successful completion of a department-developed reading assessment.

* Science: Meet one of the options below:

- A. Meet the CT standard on the NGSS exam (Level 3). Students performing at this standard are demonstrating progress toward mastery of science knowledge and skills.
- B. Other standardized test performance:
 - a. Achieve a score of 24 or better on the SAT Analysis in Science Cross-Test score, or
 - b. Achieve a score of 23 or better on the Science ACT
- C. Demonstrate satisfactory performance on three curriculum-based lab experiences during a Grade 11 or Grade 12 science course which includes NGSS Science and Engineering Practices.
- D. Achieve successful completion of a department-developed assessment in science.

BEYOND BARLOW

Community

(1 Credit)

Students must demonstrate mastery through one of the options listed below.

Community Engagement: Through the completion of one of the options below a student demonstrates how they have used their skills and learning to enrich the communities of Easton and Redding.

Advocacy: Earn a score of 3 or higher on the Junior Wellness Project Rubric

Science Research: Successfully complete and present a science research project.

Passages: Earn a score of 4 or higher when assessed using the Senior Passages rubric.

Internship/Work Study: Successfully complete a Barlow-sponsored internship.

Early Graduation

A student who has completed all the requirements for a diploma from Joel Barlow High School may be allowed to complete his/her program at the end of 7 semesters, subject to the following conditions:

1. The termination at the end of 7 semesters is to be part of a planned program for the 8th semester.
2. The planned program will be submitted to the Head of School by September of the Junior Year.
3. The planned program must be approved by the parent or guardian of a student if the student is not yet 18 years of age.
4. A diploma will be issued at the end of the academic year.
5. Students may participate in graduation exercises and all other class activities associated with the graduating class.
6. Students may use the program and facilities of the high school as part of a planned program for the 8th semester.

Promotion Policy

Since 50 credits are required for graduation, students should plan to acquire approximately 12-14 credits per year in order to remain on track. A student will be promoted from one grade to another as long as he/she has accumulated the following number of credits:

- Beginning of Grade 10 10 credits
- Beginning of Grade 11 22 credits
- Beginning of Grade 12 36 credits

When students have been retained or are at risk of retention, a semester review will be held to determine if the current status should be continued.

Participation in Graduation

Students must complete all requirements for graduation prior to the graduation ceremony in order to participate in the event.

Candidates for graduation must pass a minimum of four subjects per semester in Grade 12 in order to participate in the graduation ceremony even if they meet all other requirements for graduation.

Advanced Placement and Accelerated Programs

Joel Barlow's Advanced Placement Program is designed to provide college-level course mastery and learning experiences to highly disciplined students who have a steadfast commitment to academic rigor. Advanced Placement courses are offered in a multitude of subject areas.

All Advanced Placement students sign a contract attesting to their intention to fulfill the demanding requirements of each course and to contribute to the dynamic learning environment of the classroom. Students who withdraw from an AP course after the deadline without teacher and department approval will receive a Withdrawn-Failure for the remainder of the course. If a student completes the first semester and then withdraws, he/she will receive the earned grade for the first semester minus the AP designation.

Art and Music	English	Social Studies
AP Music Theory AP Art 2D, 3D, and Drawing	AP Language and Composition AP Literature and Composition AP Seminar (Humanities Credit)	AP US History AP Psychology AP Comparative Government AP US Government & Politics AP Seminar (Humanities credit)

Math	Science	World Language
AP Calculus AB AP Calculus BC AP Statistics AP Computer Science Principles (STEM credit) AP Computer Science A (STEM credit)	AP Biology AP Chemistry AP Environmental Science AP Physics 1	AP French AP Spanish

Course Selection

The course selection process begins in December, with classroom teachers in each subject area submitting recommendations for the succeeding year. In late January- February, counselors meet with all students to review these recommendations and plan the next year's program, with attentiveness to a four-year plan based on personal goals. Parents are welcome to attend the planning conference by appointment.

While students and families make the final decisions as to an appropriate academic program, it is extremely important that the recommendations of teachers and counselors are seriously considered. These professional recommendations are based on several factors, the goal being each individual student's academic success. Changes can be made to the proposed schedule according to published guidelines.

Course Changes and Drop Guidelines

It is essential that all course selections are made carefully as there are established deadlines beyond which changes cannot be made. After the January course selection period and until the August 20/January 15 deadlines, students may request a change of schedule. Requests will be maintained on a waitlist and granted on a space-available basis, taking into account class size and balance.

Guidelines for Course Changes after the August 20th/January 15th deadlines:

1. If a student is experiencing significant difficulty in a course before the first or third mid-quarter date, substantiated by a teacher recommendation, a change in level or placement may be made with parental consent and department chairperson notification.
2. If a level change or course substitution becomes necessary between the mid-quarter date and the end of the first or third quarter, a recommendation verified by signatures of the counselor, the parent, the teacher, and the department chairperson is required.
3. When changes are requested between the end of the first or third quarter and the end of the semester, an administrative review is required, including the director of school counseling, the department chairperson, the counselor, an administrator, and a teacher report.
4. After the first quarter ends, first semester and full-year courses (identified in course descriptions) that are dropped without a teacher recommendation will be listed as Withdrawn-Failure. After the third quarter ends, second-semester courses that are dropped without a teacher recommendation will be listed as Withdrawn-Failure. All Advanced Placement courses are considered to be full-year courses.
5. All students must carry at least six courses for credit at all times.

Calendar for Course Scheduling for the 2025–2026 School Year

January, 2025	Program of Studies available to parents of students in grades 8–11 via Joel Barlow website	Administration
December–January	Teacher recommendations completed for placement of students in leveled courses	Department Chairs
January 6, 2025	Program of Studies orientation meeting for parents	Department Chairs
January–February	Course selection completed by student, parent, and school counselor. Please note: After March 7 and until August 20 students may modify their course of study if openings exist in newly selected courses. After August 20, the only changes made will be for the 2nd semester for those that meet the guidelines on Page 17.	School Counselors
March	Final course selections shared with parents	Administration
March 7	Deadline for parents to request changes to course requests	Parents
May	Master student schedule completed	Administration
May – June	School counselors resolve schedule conflicts with students	School Counselors
July – August	New students registered; classes balanced	School Counselors
August	Final schedules released via PowerSchool prior to the start of school	School Counselors

Academic Performance

Grades and Grade Reporting

In general, grades are assigned according to a standard of achievement that may be realistically expected at a particular stage of a student's academic life. In certain subjects, mastery of content is the standard, regardless of a student's grade level.

Report cards are issued four times a year. Quarterly grades, mid-term and final exam grades, and cumulative semester/year long grades are included on report cards. Ongoing progress information can be accessed through Powerschool.

Credit

- Credit is received for the following marks: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, P
- No credit is received for the following marks: E, F, I, W, WF, O
- (AP) designates Advanced Placement courses
- (H) designates Honors courses
- The following marks are used to indicate student progress:
 - A = Work of superior quality
 - B = Very good work
 - C = Satisfactory
 - D = Below satisfactory
 - F = No credit awarded
 - I = Incomplete
 - W = Withdrawn
 - WF = Withdrawn (Failure)
 - O = Audit

Weighted Grading

Higher quality points are assigned to students who take Honors and Advanced Placement courses. This additional credit applies to the calculation of grade point average.

Grade	Credit Value	Honors/AP (Weighted) Value
A	4	5
A-	3.7	4.7
B+	3.3	4.3
B	3	4
B-	2.7	3.7
C+	2.3	3.3*
C	2	3*
C-	1.7	2.7*
D+	1.3	2.3*
D	1	2*
D-	0.7	1.7*
F	0	0
P	0	0
*GPA weight for grades below B- in Honors/AP courses became effective in the 24-25 school year		

Class Rank

In June 2000, the Board of Education approved a proposal to eliminate the reporting of class rank. Currently, each student earns a computed grade point average (GPA), with Honors and Advanced Placement courses weighted.

Colleges and post-secondary programs receive an official transcript with GPA provided, as well as a copy of the Joel Barlow High School Profile, which includes a GPA distribution chart for the current senior class. This chart indicates the number of students in that class whose GPA falls within segmented ranges. Copies of the school profile are available on the Joel Barlow website.

Honor Roll

Students with outstanding records are recognized four times a year. Requirements are:

- High Honors – 3.7 quality point average or higher
- Honors – 3.3 to 3.69 quality point average

The honor roll is determined on the basis of the quarterly grade. Grades are not weighted in determining the honor roll placement. The honor roll will be calculated 10 days after the marking period ends. Students with incomplete grades are not eligible for the honor roll.

Diploma with Distinction

The Diploma with Distinction is awarded to graduating seniors who have achieved, with conscientious work and personal integrity, four of the following five criteria listed below:

- Attained either a 31 Composite Score on the ACT or a 1380 Combined Critical Reading/Math Score on the SAT. Beginning with the Class of 2023, students must also have attained the advanced level on the Next Generation Science Standards assessment.
- Earned during the first six semesters of high school an overall weighted grade point average of 3.3 or better.
- Qualified for the marking period Honor Roll six times during the first six semesters (i.e., the first 12 marking periods) of high school.
- Received a score of five (i.e., commendable level) or higher on the Junior Writing Portfolio.
- Received a cumulative score of four (i.e., outstanding level) or higher in the Summer Reading Record Program. (This criterion requires participation in the Summer Reading Record program as a rising senior. For juniors and seniors enrolled in Advanced Placement English, the Summer Reading Record Program is replaced by the required AP English summer assignments.)

The Diploma with Distinction is presented to qualified, graduating seniors at the annual Commencement Exercises of Joel Barlow High School. The diploma not only recognizes the exceptional academic achievements of the recipients but also commends the recipients for their personal integrity in all aspects of scholarship. Any acts of cheating, plagiarism, and other commissions of unethical acts by students to present or to falsely promote their academic work, including co-curricular performance, disqualify the students from such distinction.

Students who have met the criteria for Diploma with Distinction by October 1st of senior year will receive official notification that they have qualified for this distinction. This notification will be mailed to all post-secondary institutions to which the students have applied. However, the notification will be revoked and post-secondary institutions will be notified of this revocation if disqualification for the diploma occurs anytime during the remainder of the senior year.

National Honor Society

The Barlow Chapter of the National Honor Society is part of a national organization sponsored by the National Association of Secondary School Principals and exists for the purpose of recognizing students who fulfill the four pillars of the organization: Scholarship, Leadership, Service, and Character.

Membership Criteria:

- Students must be in grade 11 or grade 12.
- Students should excel academically, lead among peers, serve their community, and exhibit integrity and good character.

At the beginning of the fall semester, those who are eligible to apply based on meeting the scholarship criterion will be notified by letter and invited to a mandatory informational meeting held during school.

Application Requirements:

- Scholarship – Per local chapter guidelines, a candidate must have a minimum weighted cumulative GPA of 3.7 to be eligible to apply for membership.
- Leadership – Student leaders are those who are resourceful, strong problem-solvers, and idea contributors. Leadership experiences can be drawn from school or community, with an emphasis placed on leading peers.

Clarifying Statements:

A student exercises leadership when he or she:

- Is resourceful in proposing new problems, applying principles, and making suggestions.
- Demonstrates initiative in promoting school activities.
- Exercises positive influence on peers in upholding school ideals and spirit.
- Contributes ideas that improve the civic life of the school.
- Is able to delegate responsibilities to peers.
- Inspires positive behaviors in peers.
- Demonstrates academic initiative.
- Successfully holds school offices or positions of responsibility, conducts business effectively and efficiently, demonstrates reliability and dependability (assessed through recommendation/verification letters).
- Is a leader in the classroom, at work, or in other school or community activities involving peers.

- Is dependable in any responsibility accepted (assessed through recommendation/ verification letters.
- Service – Candidates are involved in voluntary activities that are done with or on behalf of others without any direct financial or material compensation to the individual performing the service.
- Character – A student of good character is cooperative; shows courtesy, concern, and respect for others; demonstrates high standards of honesty and reliability, and generally maintains a clean disciplinary record.

Tri-M Honor Society

The Tri-M Music Honor Society is a program sponsored by the National Association for Music Education (NAfME). Students are recognized for contributions that go “above and beyond” both academically and musically. Students are provided leadership opportunities by enacting music-based service projects that make a difference in their communities.

Membership Criteria:

- Students must be in grade 11 or grade 12 and have participated in a Barlow performing ensemble for at least three semesters prior to consideration.
- Students are required to participate in the CMEA Western Region Audition Festival.

Membership Requirements:

- Music Participation – Candidates must be enrolled in a Barlow curricular performing ensemble for at least one semester of the current school year and demonstrate outstanding musicianship within that ensemble.
- Academic Achievement – Candidates must maintain an A average in music ensembles with at least a 3.0-grade point average in all other academic subjects.
- Leadership – Student leaders are those who are resourceful, strong problem-solvers, and idea contributors. Leadership experiences can be drawn from school or community.
- Service – Candidates are involved in activities that are done with or on behalf of others without any direct financial or material compensation to the individual performing the service.
- Character – Judgment of character will be free of speculation and rumor. Candidates consistently demonstrate respect, trustworthiness, responsibility, fairness, caring, and citizenship.

French Honor Society

Membership Criteria:

- Students must be currently enrolled in the second semester of French 4 or 4 H / 5 / 5H / 6 / AP French.

Membership Requirements:

- Academic Achievement – Cumulative average of A- in French as of the third quarter of the academic year. Cumulative average of B in all other subjects, excluding French.
- Character – The student demonstrates the attributes of “Community” as defined by the Joel Barlow High School Learning Expectations.

Spanish Honor Society

The Sociedad Honoraria Hispánica is an honor society for high school students enrolled in Spanish and/or Portuguese, sponsored by the American Association of Teachers of Spanish and Portuguese (AATSP). The mission of the Sociedad Honoraria Hispánica is to recognize high school achievement in Spanish and Portuguese and to promote interest in Hispanic and Luso-Brazilian studies.

Membership Criteria:

- Students must be currently enrolled in the second semester of Spanish 4 or 4H / 5 / 5H / 6 / AP Spanish.

Membership Requirements:

- Academic Achievement – Cumulative average of A- in Spanish as of the third quarter of the academic year. Cumulative average of B in all other subjects, excluding Spanish.
- Character – The student demonstrates the attributes of “Community” as defined by the Joel Barlow High School Learning Expectations.

The Seal of Biliteracy

The Seal of Biliteracy (SoBL) is an award made by a state department of education or local district to recognize a student who has attained proficiency in English and one or more other world languages by high school graduation. The SoBL serves to certify attainment of biliteracy for students, employers, and universities. It is a statement of accomplishment that helps to signal evidence of a student's readiness for career and college, and for engagement as a global citizen. To be eligible to receive the SoBL, two academic requirements below must be met: (1) Student must complete all English language arts requirements for graduation; (2) Student must demonstrate proficiency in a language other than English in grades 10, 11, or 12 at a level comparable to "Intermediate Mid" on the ACTFL Proficiency Guidelines as demonstrated through an approved assessment.



Make-Up Failed Courses

A student may make up a failed course if an equivalent course is offered at a state-approved secondary school and is given for credit by that institution. Online opportunities for credit recovery will be considered on a case-by-case basis.

An in-depth study of a subject, which is necessary for the awarding of credit by Joel Barlow High School, cannot be accomplished in an abbreviated time period. For this reason, enrichment or review courses and courses taken with a private tutor will not be given credit. However, a student's program will be adjusted where warranted and a note made on the transcript if requested.

Summer School

A student is eligible for summer school if he or she failed a course during the previous school year with an average of 50 to 59. Students should attend summer school during the summer immediately following the failure. The make-up of a failed course is acceptable if the course is offered at any state-approved secondary school. Options for after-school recovery may be provided on a limited basis.

Academic Support and Enrichment

Library Learning Commons

The Library Learning Commons is intended to be used for productive work and study. Students will find a rich variety of materials in our Library Learning Commons. The Library Learning Commons staff are available to assist students with their research needs. Information on practically any topic is available in some form, including print and electronic opportunities for access. Academic assistance is available during all periods of the day. Teachers are assigned to the Library Learning Commons to provide support in a variety of subject areas. Students wishing to work in the Library Learning Commons should sign in at the start of their study period. It is open during all lunch shifts.

Academic Center

The paraeducator assigned to the Academic Center works with students to target academic skills in different disciplines. Support might include additional skill and strategy reinforcement with help to generalize particular assignments. Students may wish to deepen or expand their understanding in order to improve, maintain, or stretch their performance. Students will benefit from improving overall organization, timely work completion, task initiation, limiting distractions, flexible thinking, and persistence with follow through.

Writing Center

Students are welcome in the Writing Center during their study periods, before, and after school. Equipped with computers, the Writing Center is designed to support all individual student needs. Writing consultants are available during the day, and students are encouraged to seek help with general and specific writing needs such as college and class assignments.

Students wishing to work in the Writing Center during their study periods should report directly to the Writing Center at the beginning of the period and sign in. The Writing Center is open during all lunch shifts.

College and Career Center

The Career Center, located in the Student Services suite, maintains a library of information on occupations, schools, colleges, gap years, and military life. Much of this information is also available online and through the Career Center's computer programs. A paraeducator is in the Career Center daily to meet with college representatives and to aid students in their research. The assistant works closely with school counselors in the facilitation of the school counseling curriculum, maintains individual portfolios for all students, and assists in the

development of each student's post-high school action plan. Students wishing to work in the Career Center during their study periods should report directly to the Career Center at the beginning of the period and sign in.

Math Center

The Math Center is a comfortable and dynamic place where students can focus on strengthening their math skills. On a walk in basis, students can come in for a variety of reasons. These include homework help, studying for a test or review of a general math topic. Some students simply choose the math center for a quiet place to work during their study hall.

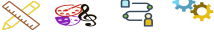
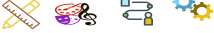
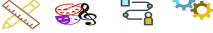
The Math Center is staffed by experienced members of the Joel Barlow math faculty. Currently the Math Center is open everyday periods two through eight and afterschool on Tuesdays, Wednesdays and Thursdays.



Art

The art curriculum involves a sequence through which the student develops a sense of excellence in art, has the opportunity to concentrate on a commitment to a particular artistic concern, and is involved in a variety of formal, technical, and expressive experiences. The preparation of a portfolio and the display of work are vital components of all art courses. Art students participate in the evaluation process. This is done in the form of formal critiques which are included as part of the portfolio requirements. Problem-solving in art classes requires a different way of thinking. All students are required to gather information and ideas for projects in order to be original and creative. At times this may require a student to pay a visit to a library, museum, gallery, or log onto the Internet. Other times a student may spend time gathering information from everyday situations. Students are also required to keep a journal/sketchbook that includes evidence of planning, experimentation, and final evaluations of solutions to project problems.

Visual Arts

Grade 9	Grade 10	Grade 11	Grade 12
Art Experience	Art Experience	Art Experience	Art Experience
Ceramics I	Ceramics I	Ceramics I	Ceramics I
Drawing I	Ceramics II	Ceramics II	Ceramics II
Painting I	Sculpture		Sculpture
Imaging 	Jewelry and Metalsmithing I	Jewelry and Metalsmithing I	Jewelry and Metalsmithing I
Digital Photography 	Jewelry and Metalsmithing II	Jewelry and Metalsmithing II	Jewelry and Metalsmithing II
Printmaking I	Drawing I	Drawing I	Drawing I
Sculpture	Painting I	Painting I	Painting I
	Imaging 	Drawing and Painting II	Drawing and Painting II
	Advanced Imaging 	Imaging 	Imaging 
	Digital Photography 	Advanced Imaging 	Advanced Imaging 
	Printmaking I	Digital Photography 	Digital Photography 
	Printmaking II	Printmaking I	Printmaking I
		Printmaking II	Printmaking II
		AP Art 2-D Design, 3-D Design or Drawing*	AP Art 2-D Design, 3-D Design or Drawing*

*Indicates full-year course

- All courses meet the Humanities elective credit requirement.
- All students in Advanced Placement Studio Art must complete summer requirements in order to be eligible for the course.

Art Experience

Art 1A - (3001) - One-semester - 1 credit - Fall or Spring

Grades 9-12

Prerequisite: None

Art Experience provides students with an introduction to a wide variety of art-making approaches, media, and skill-building exercises and projects. Students will have opportunities to create both two-dimensional and three-dimensional work, including units exploring drawing, painting, printmaking, sculpture, and mixed media. An emphasis is placed on understanding how the art elements and design principles can be incorporated successfully into works of art. Self-reflection and art history are integrated throughout the semester.

Ceramics I

Ceramics - (3041)- One-semester - 1 credit - Fall or Spring

Grades 9-12

Prerequisite: None

Ceramics I, a semester course, is an introduction to clay and a variety of hand-building techniques, including pinch, coil, soft and hard slab, and building in press molds. In addition to hand building, time will be devoted to working on the potter's wheel, initially developing techniques with centering, throwing cylinders, and then proceeding into more advanced varieties of bowls and vases. In addition to the potter's wheel, slab rollers, clay extruders, molds, and a variety of hand modeling tools will be used. Several glazing and surface decorating techniques will be explored and executed. The students will gain a solid understanding of the kiln firing process for bisque and glaze firings. Students will maintain journals documenting their preliminary planning and progress throughout the class. Emphasis will be placed on craftsmanship and individual development of aesthetic sensibility. Several contemporary and historical ceramicists will be researched and used as inspiration throughout the semester.

Ceramics II

Ceramics 2 (3051) – One semester – 1 credit – Fall or Spring

Grades 10–12

Prerequisite: Ceramics I

Ceramics II, a one semester course, is designed to offer students who have learned the basic techniques of working with clay, including pinch, coil, soft and hard slab, building in press molds, and the potter's wheel, the opportunity to apply and develop those skills to more advanced ceramic work. Projects will demand more sophisticated design, glazing techniques, and creativity. Students will maintain journals documenting their preliminary planning and progress throughout the class. Emphasis will be placed on refined craftsmanship and individual development of aesthetics. Works of contemporary and historical ceramicists will offer inspiration throughout the semester.

Drawing I

Drawing – (3011) – One semester – 1 credit – Fall or Spring

Grades 9–12

Prerequisite:

Students develop a portfolio of work in the process of further developing and refining observation and technical drawing skills. Working from life is practiced and emphasized. In addition, developing individual style and expanding one's visual creativity is exercised throughout the semester. A sketchbook of homework drawing assignments and written reflections are maintained. The classroom setting functions as a working studio where the students gain confidence with technical skills using various media including charcoal, pen and ink, pastel, and pencil. The use of projectors, videos, and manipulation of artificial light helps to enhance the students' learning experience.

Drawing and Painting II

Paint/Draw 2 – (3092)– One-semester course – 1 credit

Grades 11–12

Prerequisite: Drawing I, Painting I

Students expand the development of a portfolio of work in the process of advancing and refining their technical and creative drawing and painting skills. Working from life is emphasized along with more imaginative conceptions. Developing an individual style and expanding one's visual expression is encouraged throughout the semester.

Jewelry and Metalsmithing I

Jewelry - (3071) - One-semester - 1 credit - Fall or Spring

Grades 10-12

Prerequisite: None

Jewelry and Metalsmithing is an introduction to the art and craft of working three-dimensionally with metal. An emphasis is placed on design, craftsmanship, and the relationship between form and function. Students design and create jewelry using a variety of materials, tools, and techniques. The aim of the course is to provide students with a working knowledge of jewelry and metal making processes, including piercing, scrolling, fabrication, resin, and bezel stone setting.

Jewelry and Metalsmithing II

Jewelry 2 - (3081) - One-semester - 1 credit - Fall or Spring

Grades 11-12

One semester course

Prerequisite: Jewelry, and Metalsmithing I

Jewelry and Metalsmithing II is designed to offer students who have learned the basics of the art and craft of working three-dimensionally with metal, the opportunity to apply and develop the skills for more advanced metalwork. Projects will demand increasingly sophisticated design, craftsmanship, and understanding of the relationship between form and design. Students will explore advanced jewelry techniques. Possibilities may include but are not limited to crushed stone inlay, chains, married metals, enameling, and hollow construction with an emphasis on original design ideas and complex construction.

Painting I

Painting - (3022) - One semester - 1 credit - Fall or spring

Grades 9-12

Prerequisite: None

Students further develop their ability to express meaning in form and color. Work from life is emphasized with a focus on interesting composition, painting style, color schemes, and imagination. A sketchbook of homework painting assignments and written reflections are maintained. Various painting styles, periods, and artists are discussed and used as sources of inspiration in the class. Technical skills include the successful manipulation of acrylic, oil, and watercolor paints. In addition, the students' learning experiences include various slide and video presentations.

Sculpture

Sculpture – (3031)– One semester – 1 credit – Fall or Spring

Grades 9–12

Prerequisite: None

The focus of this course is to explore working three-dimensionally in a variety of sculpting materials including clay, stone, wood, wire, paper, plaster, Paris-craft, and found materials. While working with both representational and abstract themes, students will explore techniques, including additive, deductive, assemblage, casting, modeling, and relief sculpture. Opportunities will be provided for students to work both on a large and small scale, independently and cooperatively. Equipment and tools used will include files, rasps, chisels, saws, modeling tools, and armature. The work of both historical and contemporary sculptors will be researched and used as a reference for inspiration throughout the semester. Students will maintain journals documenting their preliminary planning throughout the semester. Emphasis will be placed on craftsmanship and individual development of aesthetic sensibility.

Imaging

Imaging – (1631) – One Semester – 1 credit in Applied Art, Fine Art, Humanities, or STEM – Fall or Spring

Grades: 9–12

Prerequisite: None

This course introduces Adobe Photoshop, an industry-standard application where you can design, edit, combine, and retouch images, shapes, and text. Students will learn how to use Photoshop's powerful tools to create digital artwork for print and digital media. Emphasis will be on design, shapes, colors, typography, effects, and preparing artwork to export. Simple assignments and complex projects will focus not only on the tools and techniques but also on creativity and effective visual communication based on graphic design principles. By the end of the course, students will have a custom portfolio of their work. This course is an excellent foundation for digital photography and a must for those interested in graphic design careers.

Advanced Imaging

Imaging 2 - (1641) - One Semester - 1 credit in Applied Art, Fine Art, Humanities or STEM - Fall or Spring
Grades: 9-12

Prerequisite: Imaging

Students will elevate their Photoshop skills in this advanced course designed for seasoned users ready to dive deeper into the software's capabilities. Explore sophisticated techniques in advanced compositing, precision selection, and expert-level retouching while mastering creative workflows that enhance larger projects. Students will learn to seamlessly blend images, apply professional-grade edits, and integrate typography and graphics into their designs. With a focus on efficiency, discover how to utilize actions and batch processing to streamline the creative process. This course combines hands-on projects and personalized feedback, empowering students to push their creativity and produce a stunning portfolio.

Digital Photography

Dgtl Photo - (3151)- One Semester - 1 credit in Applied Art, Fine Art, Humanities or STEM - Fall or Spring
Grades: 9 - 12

Prerequisites: None

This interdisciplinary course builds the foundation for visual literacy regarding both the form and content of photographic images. The elements and principles of design as they relate to photographic composition are emphasized. Students also learn to examine images critically through class critiques. Digital processing and enhancing techniques using technology are introduced using Adobe Lightroom. Those with Photoshop experience will be challenged to push their skills to the next level. The student will explore the possibilities of studio lighting in our professional-level equipped photo studio. Students develop a portfolio of various digital assignments, studies, photographic essays, and independent research.

Printmaking I

Printmaking - (3061) - One-semester - 1 credit - Fall or Spring
Grades 9-12

Prerequisite: None

This course is an introduction to printmaking. Emphasis is placed on the exploration of different types of printmaking, both traditional and contemporary. Students are encouraged to explore individual personal styles through relief, intaglio, and planar types of printmaking. Various printers, periods, and relevant artists are discussed as sources of inspiration for the class. Technical skills include the successful use of printmaking such as linocut, drypoint, intaglio, aquatint, eraser stamp, found object, mixed media prints, monotype, monoprint, and collagraph and silkscreening. Students learn the principles of creating an edition, image

creation, and transfer of plate images by printing by hand and using the printing press. Although not a prerequisite, drawing skills are recommended for this course.

Printmaking II

Printmaking 2 - (3101) - One-semester - 1 credit - Fall or Spring

Grades 10-12

Prerequisite: Printmaking I

This course builds on the basics learned in Printmaking I. Emphasis is placed on an independent exploration of different types of printmaking, both traditional and contemporary. These advanced students will apply skills such as linocut, drypoint, eraser stamp, mixed media print, monotype, monoprint, and collagraph.

Advanced Placement Art: 3-D Design; 2-D Design or Drawing

Advanced Placement Art A (3291) and Advanced Placement Art B (3292)

Full-year course - 1 credit per semester

Grades 11-12

Prerequisites: See below for each portfolio program

May be taken both as a Junior and as a Senior, with a different concentration for each year required. Summer work required.

The AP Studio Art course is designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written examination; instead, students will prepare and submit portfolios of artwork for evaluation at the end of the school year. These portfolios will be evaluated based on a set of national performance standards in the visual arts. The AP Studio Art program is intended for highly motivated students to accomplish original works that demonstrate higher-level skills and problem-solving ability.

The AP Program offers three portfolios: Drawing, 2-D Design, and 3-D Design. The portfolios share a basic, three-section structure, which requires the student to show a fundamental competence and range of understanding in visual concerns (and methods). Each of the portfolios asks the student to demonstrate a depth of investigation and process of discovery through the Concentration section (Section II). In the Breadth section (Section III), the student is asked to demonstrate a serious grounding in visual principles and material techniques. The Quality section (Section I) permits the student to select the works that best exhibit a synthesis of form, technique, and content. See prerequisites below for each portfolio program.

2-D Design Portfolio

Prerequisite: At least 3 art courses, 1 of which should be Drawing (Art Experience, Painting, Printmaking, Imaging, and Digital Photography are highly recommended)

This portfolio is intended to address two-dimensional (2-D) design issues. Design involves purposeful decision-making about how to use the elements and principles of art in an integrative way. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, figure/ground relationships) can be articulated through the visual elements (line, shape, color, value, texture, space). They help guide artists in making decisions about how to organize an image on a picture plane in order to communicate content. Effective design is possible whether one uses representational or abstract approaches to art. For this portfolio, students are asked to demonstrate mastery of 2-D design through any two-dimensional medium or process, including, but not limited to, graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, fashion illustration, painting, and printmaking. Video clips through any medium and three-dimensional works may not be submitted.

3-D Design Portfolio

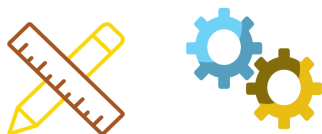
Prerequisite: At least 3 art courses, 1 of which must be Sculpture (Art Experience, Ceramics and Jewelry are highly recommended)

This portfolio is intended to address sculptural issues. Design involves purposeful decision-making about using the elements and principles of art in an integrative way. In the 3-D Design Portfolio, students are asked to demonstrate their understanding of design principles as they relate to the integration of depth and space, volume and surface. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, and occupied/unoccupied space) can be articulated through the visual elements (mass, volume, color/light, form, plane, line, texture). For this portfolio, students are asked to demonstrate mastery of 3-D design through any three-dimensional approach, including but not limited to figurative or non-figurative sculpture, architectural models, metalwork, ceramics, glasswork, installation, assemblage, and 3-D fabric/fiber arts. There is no preferred (or unacceptable) style or content.

Drawing Portfolio

Prerequisite: At least 3 art courses, 1 of which must be Drawing (Art Experience, Printmaking, and Imaging are highly recommended)

This portfolio is intended to address a very broad interpretation of drawing issues and media. Line quality, light, and shade, rendering of form, composition, surface manipulation, the illusion of depth, and mark-making are drawing issues that can be addressed through a variety of means, which could include painting, printmaking, mixed media, etc. Abstract and observational works may demonstrate drawing competence. The range of marks used to make drawings, the arrangement of those marks, and the materials used to make the marks are endless. There is no preferred (or unacceptable) style or content. Any work submitted in the Drawing Portfolio that incorporates digital or photographic processes must address issues such as those listed above. Using computer programs merely to manipulate photographs through filters, adjustment or special effects is not appropriate for the Drawing Portfolio.



Business



The Business program fosters business acumen, ensuring students become knowledgeable, adaptable participants in the business world. The curriculum includes diverse courses like Intro to Business, which lays the foundation of business principles; Accounting, which delves into the intricacies of financial management; Marketing, which focuses on customer engagement and value creation; and Entrepreneurship, which encourages innovative business idea development. Each course intertwines theoretical knowledge with practical applications, preparing students for higher education and the dynamic business environment. All business courses fulfill the applied art graduation requirement. Once the applied art requirement is fulfilled, they fulfill the STEM elective and then general elective requirements. **All courses are one semester.**

Grade 9	Grades 10, 11, and 12
Computer Applications   Entrepreneurship   Introduction to Business    Marketing  	Accounting   Computer Applications   Entrepreneurship   Introduction to Business    Marketing  

 = STEM Elective Credit

 = Applied Art Credit

 = Financial Literacy Credit

Accounting

Accounting (1051)

One semester – 1 Credit in Applied Art or STEM

Grades: 10–12

Prerequisite: None

Accounting introduces students to the dynamic world of financial accounting, where they'll learn to speak the language of business. This course walks students through the accounting cycle, learning about concepts such as income statements, balance sheets, and cash flow statements. By exploring real-world financial scenarios, students gain the skills to assess and manage financial health crucial for both personal and business success. Whether you're planning to dive deeper into the financial world or simply want to sharpen your money skills, this course builds a strong foundation in accounting principles, opening doors to future opportunities in finance.

Computer Applications I

Cmpt App 1 (1001)

One semester – 1 Credit in Applied Art or STEM

Grades: 9–12

Prerequisite: None

This course is designed to teach software skills that will enable all students to use computers to organize and communicate their thoughts in an educational, professional, or personal setting. Students will gain an understanding of word processing concepts as they learn how to format documents, reports, tables, and pictures. They will learn to create spreadsheets in order to collect, manipulate, summarize, and present data. Students will also work to create concise, attractive, and well-organized slide deck presentations. Students will gain experience with a variety of software programs including Microsoft Office Suite and Google Workspace. The focus of the course is to explore real-world applications of these software packages. All assignments are completed on the computer. This course is suitable for all students.

Entrepreneurship

Entrepreneur (1061)

One semester – 1 Credit in Applied Art or STEM

Grades: 9–12

Prerequisite: None

Entrepreneurship invites students into the exciting world of business ownership by exploring what it means to be an entrepreneur. Through the course, students will dive into key topics such as identifying entrepreneurial opportunities, solving business problems, and understanding the financial side of startups. From the early stages of developing a business idea to crafting a business model and launching for growth, students will gain hands-on experience by creating mock businesses. Research and real-world problem-solving are central to the course, and students will typically present their business ideas and strategies to the class, sharpening their entrepreneurial skills and confidence along the way.

Introduction to Business

Intro Business (1071)

One semester – 1 Credit in Applied Art, STEM, or Financial Literacy

Grades: 9–12

Prerequisite: None

Introduction to Business provides students with a solid foundation in key business principles while emphasizing financial literacy and real-world applications. The course covers essential topics such as investing, global business, economics, management, and leadership. Students will delve into organizational structures, employee motivation, and critical life skills, including budgeting, understanding gross and net income, and navigating the cost of living. A career-focused project encourages students to explore potential career paths, research salaries, and develop workplace skills. Active participation, group projects, and presentations are central to the course, fostering collaboration and empowering students to apply their knowledge and share insights with peers. ***This class is one of three options to fulfill the financial literacy graduation requirement. Introduction to Business fulfills the requirement beginning with the 2024 – 2025 school year.**

Marketing

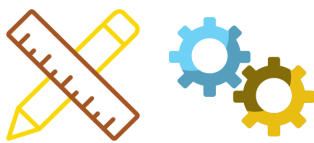
Marketing (1073)

One semester – 1 Credit in Applied Art or STEM

Grades: 9-12

Prerequisite: None

Marketing provides students with an understanding of how to create and communicate value to consumers. Students will learn how to build customer value, identify target markets, develop marketing plans, and use data to make informed marketing decisions. Students will be expected to create digital marketing posters, mockups of social media advertisements, and other related projects throughout the class. This knowledge is valuable for students interested in pursuing a career in marketing or anyone who wants to understand how marketers influence their spending.



Computer Science



The Computer Science curriculum engages students in practical coding exercises, collaborative projects, and real-world applications. Emphasis is placed on problem-solving, quality code writing, and critical thinking. The program aims to instill a deep understanding of core concepts while promoting innovation and adaptability. Students start with introductory coding skills in Java, then extend these skills in Python. AP Computer Science Principles introduces students to the breadth of the computer science field as they create Apps. AP Computer Science A is the culminating course of the program, where students take a deep dive into coding in Java learning advanced coding techniques and algorithms. All computer science courses fulfill the applied art graduation requirement. Once the applied art requirement is fulfilled, they fulfill the STEM elective and then general elective requirements. ***Indicates full-year course. All other courses are one semester.**

Grade 9	Grade 10	Grade 11	Grades 12
Introduction to Computer Programming 	Introduction to Computer Programming 	Introduction to Computer Programming 	Introduction to Computer Programming 
Intermediate Computer Programming 	Intermediate Computer Programming  *AP Computer Science Principles 	Intermediate Computer Programming  *AP Computer Science Principles  *AP Computer Science A 	Intermediate Computer Programming  *AP Computer Science Principles  *AP Computer Science A 

* denotes a full-year course



= STEM Elective Credit



= Applied Art Credit

Introduction to Computer Programming

Cmptr Prog. (6822)

One semester – 1 Credit in Applied Art or STEM

Grades: 9-12

Prerequisite: Algebra I

Recommendations: Strong Math Fluency and Math Skills Required

This one-semester course introduces the most fundamental computer programming topics and how to use them. Students will code in Java using the Eclipse IDE. Course topics will include variable types, boolean logic, conditionals, loops, control flow, methods, arrays, and user interaction. A strong emphasis will be placed on good coding design in a project-based learning environment. The course will end with a unit on graphics and animation using a Java-based programming language called Processing.

Intermediate Computer Programming

Intermediate Computer Prog. (6825)

One semester – 1 Credit in Applied Art or STEM

Grades: 9-12

Prerequisite: Introduction to Computer Programming or successful achievement on JBHS Basic Coding Aptitude assessment

This one-semester course is designed to adapt basic computer programming topics to Python and apply them in a hands-on environment. Students will spend the first quarter learning coding basics in Python and the second quarter learning about physical computing with Arduino. Arduino boards are microprocessors able to take inputs, such as light from a sensor, or a finger on a button, and turn them into outputs, such as activating a motor or turning on an LED. Course topics will include variable types, boolean logic, conditionals, loops, control flow, and methods in Python; and programming applications with Arduino. A strong emphasis will be placed on good coding design in a project-based learning environment. The course will end with a student-designed project using Arduino.

Advanced Placement Computer Science A

AP Computer Sci A and AP Computer Sci A. (6831 and 6832)

Two semesters – 2 Credits in Applied Art or STEM

Grades: 11-12

Prerequisite: Introduction to Computer Programming

Recommendations: Strong math fluency and math skills.

AP Computer Science A (AP CSA) covers the same material as a first-year college computer science course. The course emphasizes object-oriented programming and design using Java. Students will cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. The course curriculum will focus on the development of algorithms, the analysis of data structures such as lists, and the use of abstraction techniques such as encapsulation and inheritance. The course will include a minimum of 20 hours of hands-on, structured lab experiences to engage students in individual or group problem-solving. Students are required to take the AP CSA exam in May. Students complete an independent project after the AP exam.

Advanced Placement Computer Science Principles

Advanced Placement Computer Science Principles A and Advanced Placement Computer Science Principles A. (6851 and 6852)

Two semesters – 2 Credits in Applied Art or STEM

Grades: 10-12

Prerequisite: Algebra II or must be taking Algebra II concurrently

AP Computer Science Principles (AP CSP) is intended to introduce the breadth of the field of computer science. Students learn to apply computer science to solve problems through the development of abstract algorithms and programs. Students will learn to code in the MIT App Inventor programming language. Other topics covered include sequencing, selection, and iteration of algorithms, estimating algorithmic efficiency, data structures and working with large data files, digital information, Internet architecture and protocols, cybersecurity, computer simulations, and the ethical use of computers. The AP score will be based on the May exam and an in-class project called the Create Performance Task.



Theater

The theater curriculum at Joel Barlow is structured to encourage students of varying ability levels and experience to develop their performance skills, improve confidence in presenting, and enjoy the process of bringing characters to life. Students work collaboratively in class, supporting and building upon each other's artistic choices as they analyze, act, direct, and critique. The Joel Barlow theater program is designed to meet the needs of students who are passionate about theatre and aim to continue their dramatic studies at a post-secondary level, as well as students who are beginning to explore the performing arts or simply wish to increase their comfort in front of an audience.

By its nature, acting (both scene work and improvisation) requires students to "put themselves on the line" with each presentation. In order to foster an environment conducive to this kind of risk-taking, students work together to create a supportive classroom environment in which to present their scenes. Critique and self-reflection are embraced as integral to the process of artistic growth.

Students who wish to participate in one or more of the many aspects of public performance have numerous opportunities throughout the year to do so through Barlow's extra-curricular activities, such as coffeehouses, the fall musical, and during activity period.

Theater I

Theater - (3711) - One semester - 1 credit - Fall or Spring

Grades 9-12

Prerequisite: None

This course introduces the fundamentals of improvisation and scene study. It requires cooperation, support, and trust among the players. Students develop their inner resources and learn how to express themselves orally and visually. They develop the discipline and control necessary to communicate to an audience. Self-evaluation and critiques of others' performances are an essential part of the course. Students write scripts, improvise scenarios, and perform from published scripts. Basic terminology of the theater is studied along with activities on a monologue, dialogue, and scene preparation.

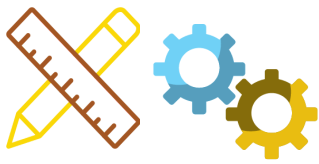
Introduction to Stagecraft & Theater Technology–Earns Humanities or STEM credit

Stagecraft and Theater Design - (3731) - One semester - 1- credit - Fall or Spring 

Grades 9–12

Prerequisite: None

This one-semester course is designed to provide students with the hands-on experience and knowledge to understand the many responsibilities associated with a theatrical production team. The skills developed through the study of stagecraft and theatrical production are varied and serve as preparation for a large number of careers. In the course, students will hone their research skills, improve organizational skills and time management, and gain an understanding of how their individual contributions impact the success of a group effort. By the end of the course, students will know the performance procedure for each of the major elements of production: actors, lighting, sound, stage crew, wardrobe/make-up, set design, props, and house. This course counts as an applied art or a fine art.



Engineering



The Engineering courses are tailored to cultivate analytical and creative skills, equipping students with modern engineering challenges. It begins with Principles of Engineering, introducing foundational concepts, which extends to Principles of Electronics, where students explore the fundamentals of electricity, components, and circuit design. Advanced Engineering and Robotics immerses students in cutting-edge robotics and engineering techniques. The Computer-Aided Design/Manufacturing course focuses on 3-D printing and design, offering hands-on experience with contemporary manufacturing technologies. Lastly, Flight Technology delves into the principles and mechanics of flight, providing a unique perspective on aeronautical engineering. This comprehensive curriculum is designed to provide a robust understanding of various engineering disciplines, preparing students for further education and careers in the ever-evolving engineering world. All engineering courses fulfill the applied art graduation requirement. Once the applied art requirement is fulfilled, they fulfill the STEM elective and then general elective requirements. **All courses are one semester.**

Grades 9, 10, 11, and 12	Grades 10, 11, and 12
Principles of Engineering  Principles of Electronics  Flight Technology 	Principles of Engineering  Principles of Electronics  Flight Technology  Advanced Engineering and Robotics  Computer Aided Design/Computer Aided Manufacturing (3-D Printing and Design) 



= STEM Elective Credit



= Applied Art Credit

Principles of Engineering

Prin Engineer (1501)

One semester – 1 credit in Applied Art or STEM

Grades: 9–12

Prerequisite: None

This course explores the broad field of engineering and focuses on the process of engineering rather than just the product. Fundamental elements, such as basic tools, measurement, and precision will be applied to hands-on engineering projects that incorporate structural engineering and design. Exposure to the AutoDesk Fusion 360 computer-aided design software will be utilized in the engineering solutions to 3D print and laser cut projects.

Principles of Electronics

Prin Electronics (1503)

One semester – 1 credit in Applied Art or STEM

Grades: 9–12

Prerequisite: None

This course is an entry-level course introducing the fundamental elements of electronics and electricity. Students will learn about the basic components of electronics and how to make them work. Students will also learn how to both read and write basic schematics and build their own circuits. The class will also explore different techniques for troubleshooting and repairing electronic devices. All these skills will be used to create custom Arduino based projects.

Advanced Engineering and Robotics

Advanced Engineering and Robotics (1761)

One semester – 1 Credit in Applied Art or STEM

Grades: 10–12

Prerequisites: Principles of Engineering

Advanced Engineering and Robotics expands upon the foundations of its prerequisite classes as students further develop core engineering principles through project-based activities. The course does not emphasize the product, but rather the process of engineering through hands-on experience solving real-world scenarios using the VEX Robotics platform and supporting students' design work with the use of Fusion 360. Students are evaluated on their implementation, analysis and reflection of the engineering process.

Computer-Aided Design and Machining (3D Printing and Design)



CAD/CAM (1561)

One semester – 1 Credit in Applied Art or STEM

Grades: 10-12

Prerequisites: None

3D Printing and Design is a class that will help unleash students' creativity using Fusion 360, a cutting edge CAD (computer-aided design) program, as you design intricate 3D models. Dive into the world of digital prototyping, where art meets technology, and witness your ideas come to life. Explore the realm of Computer-Aided Design (CAD) and Computer-Aided Manufacturing (CAM) gaining practical insights into their applications in everyday products. Navigate through hands-on experiences with 3D printers, laser cutters, CNC routers, and CNC mills, mastering the art of fabrication and manufacturing. This course is your gateway to understanding the dynamic intersection of engineering design, machining, and creative production.

Technology of Flight



Flight Tech (1751)

One semester – 1 Credit in Applied Art or STEM – Fall or Spring

Grades: 9-12

Prerequisite: None

This course covers the theoretical and practical aspects of flight. Students investigate flight through its historical development. Technologies of flight will include the study of balloons, parachutes, gliders, and aircraft. Modeling, simulation, and reporting will be used to help students understand more about aviation operations and careers, as well as the first steps in learning to fly.



English

The English program is organized so that for the first year all students will meet in heterogeneous classes. In the sophomore year, students may elect an advanced course with or without teacher recommendation. Junior and Senior years, students who have shown outstanding ability and achievement will be recommended for participation in advanced placement courses. Students in the last two years may also select from a list of elective courses which are based upon a theme, specific literary genres, specialized communication skills, or interdisciplinary approaches.

At the end of each school year, all students will receive a summer reading list in preparation for the next year's work. All students in Advanced English II, Advanced Placement Language & Composition and Advanced Placement English Literature and Composition must meet additional summer reading requirements in order to be eligible for these courses. Failure to complete these summer requirements will result in automatic withdrawal from the course.

English

Grade 9	Grade 10	Grade 11	Grade 12
English I*	English II Honors English II	English III 🍂 Modern Multicultural Literature 🌱 Psychological Dimensions in Literature 🌱 Journaling 🌱 AP Language and Composition*	English IV 🍂 Children's Literature 🌱 Modern Multicultural Literature 🌱 Psychological Dimensions in Literature 🌱 Writing to Speak 🌱 Journaling 🌱 AP Literature and Composition*

🍂 Available in the Fall Semester 🌱 Available in the Spring Semester

*Full-year courses

Note: All students must earn 8 credits in English to graduate. To qualify for English II, III, IV students must pass the preceding years.

English I

English I – (2005) – Full-year course –2 credits

Grade 9

Prerequisite: None

The Grade 9 English course develops the students' abilities to analyze literature, comprehend and utilize writing as a process, and sustain an active, confident role in the classroom. All students study key texts, including *Animal Farm*, *Antigone*, and *Romeo and Juliet*, and strengthen their vocabulary through literature and a formal vocabulary program. This course includes the following goals:

- To enrich students' appreciation for literature by introducing them to a wide range of classical and contemporary authors such as Coehlo, Cisneros, Wiesel, Shakespeare, Orwell, and Zusak.
- To provide students with terminology and the techniques for the analysis and appreciation of short stories, poetry, novels, nonfiction, and drama.
- To teach students to identify and utilize the steps involved in the writing process, with practice in writing description, exposition, narration, and persuasion.
- To foster students' confidence in their ability to discuss and analyze literature while collaborating actively with other students.
- To promote necessary work habits such as organization, note-taking, attention to detail, and daily homework.
- To develop language skills through a systematic vocabulary program.
- To prepare students for PSAT.

Writing: During each semester, students study the process of writing as they compose several expository and analytical pieces based on the literature and write at least one creative piece. Besides longer formal writings, students write paragraphs, answers to essay questions, and journals. They also learn to revise and edit their writing.

English II

English 2A and 2B - (2021 and 2022) - 1 credit per semester - Full-year course

Grade 10

Prerequisite: 2 credits in English I

English II students focus on the analysis of literature, with emphasis on establishing relationships among diverse works and making connections among the literature studied, contemporary issues, and their own life experiences. The course emphasizes expository writing and revision. Students review and expand their mastery of literary terms while learning the necessary skills for understanding and unpacking a text. The vocabulary program begun in English I is completed and the study of words in context is continued. Students will also explore a topic of interest in order to compose and deliver a persuasive speech that employs rhetorical devices and strategies. A step-by-step research process is taught, assuring a sound foundation for this persuasive speech and future academic courses.

Students read required key texts with a particular emphasis on longer and more demanding works. Key texts may include *A Midsummer Night's Dream* or *Frankenstein*; poetry, short stories, essays, and plays are woven throughout the major units, offering juxtaposed and parallel ideas that illuminate and enrich student understanding.

English II students will:

- Develop ideas about literature and human nature.
- Extend, probe, and analyze those ideas.
- Examine the motivation, change, and growth of characters and generalize to life and other texts.
- Analyze conflicts and explore the ways in which each text relates to what they know about the world and other texts.
- Reinforce the basic research process.
- Participate in the Sophomore Speech Contest.
- Continue to prepare for the building of their Junior Writing Portfolios

Honors English II

H English 2A and H English 2B – (2031 and 2032)– 1 credit per semester – Full-year course

Grade 10

Prerequisite: 2 credits in English I

Summer work required.

An important focus of Honors English II is to provide students with pre-AP practice in preparation for the AP Language and Composition and AP Literature and Composition courses. Honors students are expected to work more independently and with increasing levels of skill and sophistication compared to English II students. They will demonstrate an ability to analyze and synthesize complex texts and concepts. They will encounter a range of genres and media, from different times and places, and produce new texts of their own in response to what they have read. This course is about developing an appreciation for and an ability to evaluate the artist's craft. In doing so, students will consider a variety of voices and perspectives through the study of authors such as Hurston, Austen, Shelley, Bradbury and Shakespeare, while honing their own. The course emphasizes the full writing process, strategies for unpacking a challenging text, vocabulary development, grammar improvement, and literature-based research skills. In addition, students will collaborate with others to design, develop, and perform both individual and group presentations. The overarching objective of Honors English II is to offer students a rigorous and engaging curriculum that empowers them to pursue original ideas and communicate sophisticated literary insights through thinking, reading, writing, speaking, listening, and re-thinking. Students must complete summer work.

English III

English 3 (2051)– One semester – 1 credit – Fall

Grade 11

Prerequisites: 2 credits in both English I and English II

The focus of English III is making connections through parallel and dissimilar works of literature and exploring them through oral and written discourse. Students continue to grow as independent learners, creative thinkers, and class participants. They use writing as a tool for analyzing texts with an emphasis on establishing relationships among diverse works of literature, as well as making meaningful connections to their personal lives. Students study fiction, nonfiction, poetry, and drama, such as *Macbeth* and August Wilson's *Fences*. The course requires students to elevate the sophistication of their writing in preparation for the Junior Writing Portfolio. They work to personalize their written voice, improve the clarity of expression, and hone skills to make their analytical, narrative, creative, and expository writing more effective. Students are encouraged to develop an appreciation for the power of words, as well as reading and writing for pleasure.

Students will:

- Refine critical thinking skills by analyzing juxtaposed texts, making connections between and among them.
- Push their own thinking to extend and probe beyond the texts to their own lives.
- Become more relaxed and conversant with literary language.
- Increase tolerance of ambiguity by discussing multifaceted issues introduced through the texts.
- Write to explore ideas and to discover their own thoughts.
- Prepare formal analysis papers, personal essays, and creative pieces for the Joel Barlow Writing Portfolio.

Advanced Placement Language and Composition

AP Eng L&C A and AP Eng L&C B – (2041 and 2042) – Full year course – 1 credit per semester

Grade 11

Prerequisites: 2 credits in English I 2 credits in English II

Summer work required.

The Advanced Placement English Language and Composition course is designed for those students who have acquired the necessary skills and academic discipline to meet the challenges of college-level work. It is important that students understand that this is not a literature course; rather, the purpose of the course is to train students to be skilled readers and writers of the expository essay. Students will explore the relationship of style to authorial intent. The subject matter is rigorous and intense with the emphasis placed on the understanding of Aristotelian discourse, recognition of common fallacies, and the recognition and use of effective rhetorical strategies.

Determining appropriate placement for students may include recommendations from the English Department. The course begins in the summer between sophomore and junior year with a summer reading requirement which serves as the foundation for the texts which will be studied during the school year.

No student will be allowed to participate in AP Language and Composition without completing the summer reading requirement. All students will be required to complete the National Advanced Placement Test, administered in May of each year.

Although AP Language and Composition is not a literature course, students are required to read and familiarize themselves with major works of fiction Dante's *Inferno*, *The Stranger*, *Macbeth*, *Death of a Salesman*, *The Great Gatsby*. After the completion of the AP Exam in May, students will have the opportunity to engage in an intense exploration of one major work of literature.

Research, while not a significant component of the course, is required for several short assignments. As this is a composition course, students can expect the writing to be extensive and rigorous with much of the writing completed in class under the pressure of time restraints. A sampling of texts used includes Classical Rhetoric for the Modern Student, The Art of the Personal Essay, and The Norton Reader. No student will be allowed to take Advanced Placement Language and Composition unless all summer requirements are met.

Journaling: The Art of Memoir

Journaling – (2232) – One semester – 1 credit – Spring

Grades 11–12

Prerequisites: Two credits English I, Two credits English II, One credit English III

Journaling: The Art of Memoir is designed to enhance student recognition, understanding, appreciation, and application of original thought. Believe that good thinking is the basis of good writing, and that good writing depends upon an understanding of language in a variety of traditional and non-traditional academic arenas. Philosophical, psychological, and scientific texts will be used in conjunction with graphic novels and other literary texts.

The readings will be diverse and the writings intense, but the rewards will be many. Students will keep both observational and analytical journals, write both analytical and narrative essays, write and illustrate the first chapters of their own graphic novels, and make written and visual connections between the scientific world and the world of literature. As a final project, students will write and film original episodes of NPR's This American Life.

Texts may include Zen and the Art of Motorcycle Maintenance, 100 Essential Thinkers, and Persepolis. NPR's This American Life (videos) and the "Science" section of The New York Times may also be used.

Modern Multicultural Literature

Modern Lit – (2222) – One-semester – 1 credit – Spring

Grades 11–12

Prerequisites: Two credits English I, Two credits English II, One credit English III

Modern Multicultural Literature is designed to improve students' abilities to engage in the conversation of our world today by examining current literature across cultures. Using a range of genres and media—novels, essays, poetry, art, and film—students will examine the relationship and significance between texts and the author's cultural experience. Students will develop an appreciation for varying viewpoints, while also considering how the exploration of multicultural literature exposes universal ideas shared by all of humanity.

Key texts may include *The Kite Runner* by Khaled Hosseini and *Smoke Signals*, a film adaptation of Sherman Alexie's text. Supplementary pieces may include works by the following authors: Alice Walker, T.S. Eliot, Jhumpa Lahiri, Laura Esquivel, Mark Mathabane, Lisa See, and Amy Tan. Critical reading, active participation, and writing are integral components of this course. Evaluation is based on daily engagement and performance on formal analyses and synthesis essays, personalized reader response journals, and completion of a research-based project.

Literature: Psychological Dimensions

Psych/Lit - (2242) - One semester - 1 credit - Spring

Grades 11-12

Prerequisites: Two credits English I, Two credits English II, One credit English III

Literature: Psychological Dimensions is not a psychology course, but rather a literature course that focuses on components of human psychology that can be important in the analysis and explication of some texts. Varied class activities include analysis of literature, discussion of texts, lecture materials, writing, research, and independent reading. Collateral material is used to supplement the basic texts. Writing experiences include literary interpretation and analysis, subjective responses to literature and psychological concepts, research-based assignments, and engagement with key ideas. Texts such as or similar to *The Bell Jar*, *Ordinary People*, and *The God of Small Things* are studied, as well as selected stories, essays, and poetry.

English IV

English 4 - (2081) - One-semester - 1 credit - Fall

Grade 12

Prerequisites: English I & English II, one credit in English III

English IV has as its focus the study of sophisticated literature and an examination of the nature of language as it relates to that literature. The course emphasizes the integration of skills from the preceding language arts program. Students are expected to engage in clear oral and written analysis of selected essays and classic and modern literature. The overall goal is for students to acquire a habitually critical attitude toward language, a recognition of the power of its use, and an appreciation for universal themes revealed through literature.

Writing is an integral component of the course. Constant emphasis is placed on the sophisticated and articulate use of language to support ideas. Students will complete a major culminating synthesis paper project.

The purposes of this course are:

- To improve students' abilities to evaluate critically a diversified collection of literary works representing the basic genres of poetry, short story, drama, and essay. In addition, major texts include *Grendel*, *Hamlet*, and *The Things They Carried*.

- To improve students' abilities to apply an increasingly sophisticated understanding of the skills of analysis.
- To improve students' abilities to demonstrate a concise explication of texts, a clear comprehension of literary conventions, precise thinking and organizational skills, and an appreciation of universal themes.
- To improve students' abilities to utilize a variety of writing strategies, with particular emphasis on the expository essay.
- To improve students' abilities to access information and to synthesize that information by completing a synthesis project.

Advanced Placement Literature and Composition

AP Eng A and AP Eng B – (2091 and 2092) – Full-year – 1 credit per semester

Grade 12

Prerequisites: Six credits in English, Summer work required.

The Advanced Placement Literature and Composition course is designed to train students who are ready for college-level work in the critical reading and analysis of literature: fiction, drama and poetry. The purpose of the course is to further develop in students the skills of a mature reader, the ability to write well about literature, and the ability to reason logically and critically. The subject matter is concentrated and demanding. While the pace of the class is fast, the work focuses on in-depth analysis and synthesis of materials. Strong reading and analytical skills are required for success in the course. No student will be allowed to take Advanced Placement English without completing this summer work requirement. Students will be required to complete the National Advanced Placement Test, which is administered in May of each year. Reading is rich and writing is extensive, with emphasis on clear, complex, written analysis. On demand writing done in class weighs as equally as process writing. Multiple choice and discussion based discourse are also critical types of assessments. A sampling of texts studied includes texts similar in caliber to Shakespeare's *Hamlet*, Toni Morrison's *Beloved*, Charlotte Bronte's *Jane Eyre*, Chinua Achebe's *Things Fall Apart*, and Oscar Wilde's *The Importance of Being Earnest*. No student will be allowed to take Advanced Placement Literature unless all summer requirements are met.

Children's Literature

Child Lit – (2212) – One semester – 1 credit – Spring

Grade 12

Prerequisites: Two credits English I, Two credits English II, One credit English III

In Children's Literature, students study the structure of various forms of children's literature, its popularity, its changes over the years, and its recurring themes. Students examine issues in child development from an educational, psychological, and social perspective in order to evaluate the quality, suitability, and influence of children's books. Fables, folktales, and Joseph Campbell's Monomyth from the background for analyzing the material of the course.

Evaluation is based primarily on student performance in the classroom, on essay tests, on completion of a research project, and on the composition of an original children's book.

The readings that frame the course-- Bettelheim, Gardner, Campbell-- are complex and challenging. There is much discussion and written analysis of literature for children examining such titles as The Grimm Folk Tales, Andersen's Fairy Tales, Aesop's Fables, Charlotte's Web, and Where the Wild Things Are. Writing is extensive with an emphasis on literary analysis.

The Fourth Estate: Journalism and Contemporary Issues Interdisciplinary

Fourth Est A and Fourth Est B - (2151 and 2152) - 1 credit per semester - Full year

Grades 11-12

Prerequisite: English I and English II

Concurrently with this course juniors must take English III and seniors must take English IV

What is the role of the press in a free and democratic society? This course combines the exploration of journalism and current events. It is taught by two teachers, one from the English Department and one from the Social Studies Department. The student will earn two credits, one in Social Studies and one in English. Students will focus on the broader range of media and contemporary issues. The objective will be to make connections between the students and the world in which they live. An emphasis will be on the increasing role of technology in the research and presentation of news media. Students will be expected to contribute to the electronic school newspaper, local papers, as well as produce, write, direct and edit podcast publications.

Materials will include national magazines, national and local newspapers, National Public Radio broadcasts, and the News Hour. Special emphasis will be placed on identifying bias in the media.

Words to be Heard: Writing to Speak

Writ/Speak - (2202) - One-semester - 1 credit - Spring

Grade 12

Prerequisites: Two credits English I, Two credits English II, One credit English III

Whether galvanizing speech or witty dialogue, the spoken word has the ability to captivate and move audiences. In this course, students focus on writing for listening, rather than reading, audience. The course covers both traditional oration and dramatic literature through an analysis of published works and the composition of original pieces. Emphasis is on using written structures to develop these oral formats. There are frequent writing assignments, both in and out of class, some of which require research. Peer revision is done in class and necessitates that students follow timelines in order to participate. Additionally, frequent class presentations afford students multiple opportunities to develop their performance/delivery skills. Critical listening and viewing are also important elements of the course and are developed through peer and self-evaluation in both speaking and writing.



Humanities Electives

Advanced Placement Seminar

AP Seminar A and AP Seminar B – (2093 and 2094) – Full year – One credit per semester – Fall and Spring
Grades 10-12

Prerequisite: None

Summer Work Required

Students in this course will learn research methods and master writing and presentation skills. The students themselves, with input from the instructor, will select topics of personal interest to explore (topics may be cross-curricular). Students will conduct research and consider an issue from multiple perspectives; evaluate the strength of an argument; and make logical, fact-based decisions. Students will develop skills associated with writing effective thesis papers, collaborating with peers, and delivering effective multimodal presentations. Students will also identify and contextualize an issue, seek out answers that reflect multiple perspectives, use technology to access and manage information, evaluate the validity of an argument and credibility of sources and evidence, and formulate a complex and well-reasoned argument that uses support from multiple sources.

Reading and Reasoning

Reading & Reasoning – (9501) – One-semester – 1 credit – Fall or Spring
Grades 9-10

Prerequisite: None

Reading and Reasoning is designed to help students acquire and practice strategies that will help them become independent learners. Special emphasis is placed on higher-level reading skills, study habits, vocabulary development, thinking skills, and problem-solving skills.

There is also a heavy concentration on organization skills such as note-taking, time-management, and test-taking skills. Writing is an integral part of this course; students utilize vocabulary, create journal entries for their study strategies' portfolio, and practice writing.

College Writing

Col Writing A (9541) - One-semester - 1 credit - Fall or Spring

Grades 10-12

Prerequisite: None

College Writing is designed for students interested in improving writing skills. All students, whether gifted, interested, or identified as needing further development of their writing skills, are candidates for this course. Within this writing community, students share writing, examine their own writing processes, and develop needed skills at their own pace.

Students have the opportunity to develop writing in a variety of forms and for a variety of purposes. They develop their ability to assess their own writing, a key to becoming an independent writer. In addition, they practice writing strategies that help them increase their learning in the classroom.

Student writers improve as they become comfortable with their voices and develop confidence in what they have to say. They develop positive attitudes toward writing and an appreciation for writing as an activity that will enrich their lives in and out of the classroom.

SAT Advanced Verbal and Reading Comprehension Skills

SAT Adv Verbal - (9511) - One-semester - 1 credit - Fall or Spring

Grades 9-12

Prerequisite: None

Advanced Verbal Skills is designed to help students develop upper-level reading and vocabulary skills necessary for SATs and college-level study. The program includes advanced reading comprehension, critical thinking, and intensive college vocabulary development. Writing is used mainly as a tool to reinforce the learning of vocabulary. Students focus on extensive preparation and practice for the PSAT and SAT tests.

SAT College Reading

Col Reading A - (9521) - One-semester - 1 credit - Fall or Spring

Grade 11-12

Prerequisite: None

Studies prove that reading is related to SAT and writing success. In College Reading, students improve comprehension, develop vocabulary, and foster the enjoyment of reading. Through carefully guided exposure to a broad range of literature, fiction, and nonfiction, with a gradual increase in difficulty and diversity of choices, each student reads and progresses through an individual program. A willingness and ability to work in an atmosphere of mutual trust and independence is a prerequisite for this course.

Introduction to Philosophy

Philosophy – (9562) – One-semester – 1 credit – Fall or Spring

Grades 11-12

Prerequisite: None

What is the truth? How should we govern? What can I know with absolute certainty? What is justice? Does God exist? What is good? What, if any, are the limits or reasons? It is likely you have already asked some or all of these questions at one time or another. This course is an introduction to western philosophy. We can carefully examine how different philosophers have answered these and other questions. In addition, we will formulate and present our own ideas and evaluate the merits of such ideas in a civil environment promoting intellectual risk-taking and generosity of spirit. This course requires careful reading and a strong willingness to join in conversations. There is an expectation to share ideas during class discussions. In addition, students will craft papers that present positions based upon deductive and inductive reasoning.



Mathematics

Grade 9	Grade 10	Grade 11	Grade 12
Algebra Foundations Algebra Advanced Algebra Advanced Geometry Honors Geometry	Quantity & Math Modeling Integrated Algebra & Geometry Geometry Advanced Geometry Honors Geometry Algebra II Advanced Algebra II Honors Algebra II Statistics (semester or full year)	<i>Any grade 9 or 10 courses and the following options:</i> Pre-Calculus Advanced Pre-Calculus Honors Pre-Calculus AP Statistics *Personal Finance  *Statistics and Probability *Intro to Data Science (STEM elective) *College Math (STEM elective)	<i>Any grade 9, 10, or 11 courses and the following options:</i> Calculus AP Calculus AB AP Calculus BC

* denotes semester course



= Financial Literacy credit

At Joel Barlow High School we desire that all students maximize their achievement to ensure a solid and successful four-year math program. Proper placement in a math sequence increases the likelihood of success and graduating with four years of math credit. Past performance in math is a strong predictor of success in future math courses.

Sequences of courses can be taken at varying levels and students may switch between levels based upon growth over time. Typical courses of studies include but are not limited to:

- I. Geometry, Algebra II, Pre-Calculus, and Calculus or Statistics
- II. Algebra I, Geometry, Algebra II, and Pre-Calculus or Statistics
- III. Algebra Foundations, Algebra I, Geometry, and Algebra II
- IV. Algebra Foundations, Quantity and Math Modeling, Integrated Algebra and Geometry, and College Math

Joel Barlow Mathematics: Typical Four-Year Sequences

8th Grade Algebra

9th Grade Honors Geometry	10th Grade Honors Algebra II	11th Grade Honors PreCalculus	12th Grade AP Calculus BC AP Calculus AB AP Statistics
9th Grade Advanced Geometry	10th Grade Advanced Algebra II	11th Grade Advanced PreCalculus	12th Grade AP Calculus AB AP Statistics
9th Grade Advanced Algebra I	10th Grade Advanced Geometry	11th Grade Advanced Algebra II Statistics (fall semester)	12th Grade Advanced PreCalculus AP Statistics Statistics
	Geometry	Algebra II	PreCalculus Statistics

Math 8

9th Grade Algebra	10th Grade Geometry	11th Grade Algebra II	12th Grade PreCalculus Statistics Statistics & Probability Personal Finance
9th Grade Algebra Foundations	10th Grade Algebra	11th Grade Geometry	12th Grade Algebra II Statistics & Probability Personal Finance

Mathematics Course Level Expectations

Proper placement in math increases the likelihood of students graduating with 4 years of math credit. The key to correct mathematics placement is to base it on demonstrated past performance. Please use the indicators below to assist you in selecting an appropriate mathematics course level to best match your skill level with a challenge level.

Indicator/Expectation	Foundations	Regular Level	Advanced Level	Honors Level
Problem Solving Ability	Student benefits from ongoing teacher modeling and prompting	Student proposes solutions to word problems with teacher prompting	Student proposes logical solutions to word problems that are adequately supported with limited teacher prompting	Student independently proposes solutions to word problems that are thoroughly supported and demonstrates sophisticated understanding
Mathematical Fluency (Fundamental Skills)	Student has limited understanding of fundamental skills and concepts	Student has adequate understanding of fundamental skills with limited higher-order concepts	Student has strong understanding of fundamental skills and higher-order concepts	Student has sophisticated understanding of fundamental skills and higher-order concepts
Transfer of Knowledge	Requires multiple examples to extend current knowledge	Builds on prior knowledge with teacher support (Needs two or three teacher examples)	Builds and extends on prior knowledge with minimum support (One or two teacher examples)	Independently builds and extends on prior knowledge
Demonstrated Competencies	Adequate performance with teacher prompting	Adequate independent performance	Accomplished performance Unit Tests January Mid-term June Final Summer Work	Exemplary performance Unit Tests January Mid-term June Final Summer Work
Course Pacing (on average)	Mastery of a new topic every 3 to 4 days	Mastery of a new topic every 2 to 3 days	Mastery of new topic every 1 to 1 ½ days	New topics presented daily.
In-class Practice/Teacher Support and Responsibility	Teacher frequently models examples with daily homework review – reduced appropriately in 3rd and 4th quarter	Teacher models 2 to 3 examples and reviews on an as-needed basis	Teacher models 1 to 2 homework examples to address student questions and reviews by extending homework to new situations	Teacher provides limited homework review – Teacher extends homework in-class to new situations

Student overall responsibilities - Use of supports that include: homework practice, class notes and examples, class webpage, textbook, academic center, National Honor Society tutor and class study groups	Student prepares for class, makes-up absent assignments, and uses provided supports in preparation for each class with ongoing teacher prompting	Student prepares for class, makes-up absent assignments, and uses provided supports in preparation for each class with teacher prompting	Student prepares for class, makes-up absent assignments, and uses provided supports in preparation for each class with limited teacher prompting	Student independently prepares for class, makes-up absent assignments and uses provided supports in preparation for each class
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Mathematics Course Registration

Student Mathematics course registration should be based on Teacher Recommendation and student demonstrated performance of concepts in current Math Class. Please use the Course/Level Selection Guidelines when reviewing placement recommendations with your Mathematics Teacher and School Counselor.

Algebra Foundations

Alg Found (6145)

Full year – 2 Credits in Math or STEM

Grades: 9–12

Prerequisite: 8th Grade Math, Pre-Algebra, or equivalent

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

The course content emphasizes the prerequisite Algebra skills of signed numbers, evaluating expressions using order of operations, simplifying algebraic expressions, solving equations, and applying formulae and fundamental arithmetic skills involving percents, fractions, and decimals to solve practical problems. Elementary Algebra concepts including variables, graphing, linear functions, and patterns are systematically developed and enhanced. Algebraic topics include multi-step equations, systems of linear equations, exponents, and polynomials. The course emphasizes the study skills necessary for success in subsequent mathematics courses. Note-taking skills, test-taking strategies, and study techniques are developed within the context of the course. Students improve their math communication skills by making their thinking visible by solving steps in an organized fashion.

Quantity and Math Modeling

Quantity and Math Modeling A and Quantity and Math Modeling B (6771 and 6772)

Two semesters – 2 credits in Math or STEM (1 credit per semester)

Prerequisite: Algebra Foundations

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course includes topics from the Common Core Strands: Quantity and Modeling. Quantity: In real-world problems, the answers are usually not numbers but quantities: numbers with units that involve measurement. Students will work with a variety of units in modeling, for example, acceleration, speed, currency conversions, and rates in everyday life such as points scored per game or batting averages. Students will reason quantitatively and use units to solve problems. Math Modeling: Students will use expressions, equations, functions and inequalities to model real-world and mathematical situations.

Algebra I

Algebra (6135)

Full year – 2 Credits in Math or STEM

Grades: 9-12

Prerequisite: Pre-Algebra or Algebra Foundations.

Recommendations: Achievement of a grade of B- or higher in Pre-Algebra or a C or higher in Algebra Foundations with a C- or above on the June Algebra Foundations final exam.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

The course highlights the mathematical concepts of pattern recognition, mathematical modeling, functional relationships, and manipulation of algebraic expressions and equations. Topics include: solving equations and inequalities, functions and linear equations, systems of equations, exponents and exponential functions, polynomials and factoring, solving quadratics, and simplifying radical expressions. Students completing this course will take either Geometry or Integrated Algebra and Geometry.

Advanced Algebra I

Adv Algebra (6125)

Full year – 2 Credits in Math or STEM

Grades: 9-12

Prerequisite: 8th-grade Algebra I or 8th-grade Math with JBHS department review and approval

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course is intended for students who did not master Algebra I in middle school as indicated by a B- or better on the final examination. The curriculum covers all topics of Algebra I plus additional advanced topics that include but are not limited to: completing the square and proving the quadratic formula. The TI-84 graphing calculator is used frequently to allow students to create and test mathematical models.

Integrated Algebra and Geometry

Integrated Algebra & Geometry A and Integrated Algebra & Geometry B (6761 and 6762)

Two semesters – 2 Credits in Math or STEM (1 credit per semester)

Grades: 10-12

Prerequisite: Quantity and Math Modeling or Algebra

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course includes topics from the Common Core Strands: Algebra, Geometry, Functions, and Math Modeling. Students will use expressions, functions, and inequalities to model real-world and mathematical situations using both an algebraic and a geometric perspective. The correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. This course will reinforce foundational topics from Algebra and incorporate these skills in geometric contexts such as interpreting schematic drawings or estimating the amount of wood needed to frame a sloping roof.

Geometry

Geometry A and Geometry B (6231 and 6232)

Two semesters – 2 Credits in Math or STEM (1 credit per semester)

Prerequisites: Algebra I, Advanced Algebra I or Integrated Algebra I and Geometry.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course presents the theorems, postulates, definitions, and assumptions of Euclidean plane geometry through algebraic reasoning, as well as, one formal unit of deductive geometric proofs based on Congruent Triangles. The skills of Algebra I are reinforced by their application to geometric problems. This course provides students with an understanding of the rules of plane geometry and an appreciation of the power of logical reasoning and justification. Units include the fundamental tools of geometry, the properties of Parallel and Perpendicular lines, Congruence and triangles, Coordinate Geometry, Similarity, Pythagorean Theorem and Right Triangle Trigonometry, Area of Polygons including Regular polygons, properties of circles that include the equation of the circle, arc lengths, and area of sectors, Surface Area, and Volume.

Advanced Geometry

Adv Geometry (6225)

Full year – 2 Credits in Math or STEM

Grades: 9–12

Prerequisite: 8th-grade Algebra I or 9th-grade Adv Algebra I

Recommended: 8th-grade or 9th-grade final exam score of B– or higher

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course is designed for students who have successfully mastered Algebra I, have demonstrated creative thinking, and have the ability to function at a high level of abstraction. The emphasis is on logical reasoning and deductive proofs. There is extensive writing involved as students learn to present their solutions in a logical manner. Topics include congruent and similar polygons, parallel lines, circles, trigonometric ratios, areas, volumes, and coordinate geometry.

Honors Geometry

H Geometry (6115)

Full year – 2 Credits in Math or STEM

Grades: 9–12

Prerequisite: Middle school Algebra I

Recommended: Final Examination Grade of A– or higher

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course is designed for independent and creative thinkers who enjoy the challenge of solving original problems. Students are encouraged to formulate conjectures and then prove these conjectures in a formal way. Topics are developed axiomatically, which enables students to synthesize ideas to create original proofs. This course includes the study of Euclidean plane geometry, as well as the main ideas of solid geometry. Students in this course are expected to communicate with confidence and clarity. It is required that students have demonstrated superior work in their study of Algebra I.

Algebra II

Algebra 2A and Algebra 2B (6331 and 6332)

Two semesters – 2 Credits in Math or STEM (1 credit per semester)

Grades: 10–12

Prerequisites: Algebra I and Geometry.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

The concept of a function portrayed algebraically and graphically is the unifying theme of the course, with various types of functions being studied. Topics include linear, quadratic, logarithmic, exponential, rational, and polynomial functions. Complex numbers, radical

equations, and SAT Practice exercises are also included. Real-world data is modeled mathematically. The graphing calculator is used extensively as a tool for generating and testing specific mathematical models.

Advanced Algebra II

Adv Alg 2A and Adv Alg 2B (6321 and 6322)

Two semesters – 2 Credits in Math or STEM (1 credit per semester)

Grades: 10–12

Prerequisite: Algebra and Geometry

Recommendations: Advanced level recommended, test achievement of B or high in Algebra I and Advanced Geometry recommended due to the fact that this course builds and extends upon the concepts and skills of 9th-grade Advanced Algebra I and/or 8th-grade Algebra I.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

The topics covered are generally the same as in Algebra II; however, the Advanced level differs in pacing, depth of coverage for selected topics, level of difficulty on assignments and assessments, and student independence.

Honors Algebra II

H Alg 2A and H Alg 2B (6211 and 6212)

Two semesters – Two Credits in Math or STEM (1 credit per semester)

Grades: 10–12

Prerequisite: Honors or Advanced Geometry

Recommendations: Teacher recommendation from Honors Geometry teacher. Overall high achievement in Hon Geometry with strong performance on algebra portions of assessments in geometry recommended.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This is an Algebra II course for honors students. Students should have significant mastery of Algebra I skills and content as a prerequisite and be fluent in arithmetic and number sense. The concept of a function is the unifying theme of the course. Higher levels of abstraction, rigorous algebraic thinking, and faster pacing are expectations and hallmarks of the course. Topics include linear, quadratic, polynomial, rational, variation, exponential and logarithmic functions. Other topics covered include sequences and series, statistics and probability, and matrix operation. The graphing calculator is used extensively in this course.

Pre-Calculus

Pre-Calculus A and Pre-Calculus B (6431 and 6432)

Two semesters – Two Credits in Math or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Algebra II

Recommendations: Achievement of a grade of B or higher in Algebra II.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course is designed to prepare students for college-level mathematics including Calculus and Statistics. Advanced concepts are presented in an intuitive way and then developed with appropriate rigor. Graphing calculators and computer technologies are employed to enhance visual understanding and computational abilities. Topics in the 1st semester include the unit circle, graphing and transformations of trigonometric functions, trig function modeling, and trig identities. Topics in the 2nd semester include descriptive statistics, limits of sequences and series, matrix operations, limits of functions, and introduction to the first and second derivatives.

Advanced Pre-Calculus

Adv Pre-Calc A and Adv Pre-Calc B (6421 and 6422)

Two semesters – 2 Credits in Math or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Advanced Algebra II.

Recommendations: Achievement of a grade of B or higher in Advanced Algebra II.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course is designed to prepare students for college-level mathematics including a study of Trigonometry, advanced Algebra topics, Calculus, and Statistics. Concepts are presented in an intuitive way and then developed with appropriate increased depth and rigor compared to Pre-Calculus. Topics in the fall semester include the unit circle, graphing and transformations of trigonometric functions, applications of Trigonometric Functions including solving equations and sinusoidal modeling, trig identities, and the algebra of conic sections. Topics in the spring semester include matrix operations before a study of topics serving as preparation for AP-level mathematics, including descriptive statistics, probability and counting methods, limits of sequences and series, limits of functions, and introduction to the first and second derivatives.

Honors Pre-Calculus

H Pre-Calc A and H Pre-Calc B (6311 and 6312)

Two semesters - 2 Credits in Math or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Honors Algebra II or Advanced Algebra II with teacher recommendation

Recommendations: High achievement at the honors level recommended

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This is the Pre-Calculus course for honors-level students. Topics include circular functions, and their graphs, inverses of circular functions, proving trigonometric identities, solving trigonometric equations, applications of trigonometry, polar coordinates in the real and complex planes, vectors, and conics. The study of the AP calculus curriculum begins the fourth quarter of the year with the following topics: limits of sequences, sum of an infinite series, limits of functions, continuity, the derivative and its applications. There is extensive use of the technology of the graphing TI-84 calculator.

Statistics

Statistics A and Statistics B (6731 and 6732)

One or two semesters - 1 or 2 Credits in Math or STEM (1 credit per semester)

Grades: 10-12

Prerequisite: Algebra I

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

The Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The course is organized around four broad conceptual themes: Exploring Data, Planning a Study, Anticipating Patterns, and Statistical Inference. The first semester of the course focuses on the first two themes, Exploring Data and Planning a Study. This semester is aligned with the Common Core Standards as they relate to Statistics and Probability. The second semester focuses on Anticipating Patterns and extends this knowledge to Statistical Inference. The Statistics curriculum is an activity-based approach that encourages the use of hands-on activities that students pursue individually or in small groups. Students are expected to communicate solutions to problems in full sentences using the appropriate statistical terminology. The course requires the daily use of the statistical functions of the TI-84 graphing calculator. The course can be taken alone as a full-year mathematics course or in conjunction with another mathematics course. In addition, students have the option to take the first semester only in conjunction with another mathematics course in preparation for the 11th-grade administration of the SAT.

Advanced Placement Statistics

AP Stat A and AP Stat B (6841 and 6842)

Two semesters - 2 Credits in Math or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Honors Algebra II or Advanced Pre-Calculus

Recommendation: Achievement of a B or higher in either of the prerequisite courses.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

The Advanced Placement Statistics course offers an examination of statistics equivalent to a one-semester, college-level, non-calculus-based statistics course. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The course is organized around four broad conceptual themes: Exploring Data, Planning a Study, Anticipating Patterns, and Statistical Inference. This AP Statistics curriculum is an activity-based approach that encourages the use of hands-on activities that students pursue individually or in small groups. This active orientation recognizes that statistics is and should be more than calculations. The development of formulas and proofs of formulae using Calculus will not be discussed. Students are expected to communicate solutions to open-ended problems in full sentences using the appropriate statistical terminology. In addition, the course requires the daily use of the statistical functions on the TI-84 plus graphing calculator. Students are also introduced to Internet sites for the collection of data and to computer software to analyze data both graphically and numerically using technology. Prerequisite knowledge required for AP Statistics is included in Honors Algebra II or Advanced Pre-Calculus. Therefore, either of these math courses fulfills the prerequisite needed for AP Statistics.

Calculus

Calculus A and Calculus B (6521 and 6522)

Two semesters - 2 Credits in Math or STEM (1 credit per semester)

Grade 12

Prerequisite: Pre-Calculus (any level)

Recommendations: Achievement of a grade of B or higher in Pre-Calculus (any level). Strong study skills and a high level of personal responsibility.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This is a full-year course in calculus. Topics of study include: limits, continuity, differentiation and its applications, and integration and its applications. The class will stress multiple representations of calculus concepts including graphical, numerical, and analytic representations. Students are required to justify the results of problem-solving activities with well-reasoned, written mathematical arguments.

Advanced Placement Calculus AB

AP Calc AB and AP Calc AB. (6441 and 6442)

Two semesters – 2 Credits in Math or STEM (1 credit per semester)

Grade 12

Prerequisite: Advanced Pre-Calculus

Recommendations: Achievement of a grade of B or higher in Advanced Pre-Calculus.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

Advanced Placement Calculus AB is a two-semester course designed to introduce students in a rigorous manner to the general concepts of the derivative and the integral. Students will be able to understand both the mathematical meaning and applications of both the derivative and the integral. The class will stress multiple representations of calculus concepts including graphical, numerical, analytic, and descriptive representations. Students will synthesize all of their previous math knowledge together with the concepts learned in this class to become more efficient problem solvers and generate an appreciation of how mathematics can be used in numerous ways outside of the classroom. Students are required to take the AP Calculus AB exam in May. Students who score well on the AP exam may receive college credit or advanced placement in their mathematics course in college. After the AP exam, students will continue with the study of more advanced Calculus concepts covered in AP Calculus BC or at the collegiate level.

Advanced Placement Calculus BC

AP Calc BC and AP Calc BC. (6411 and 6412)

Two semesters – Two Credits in Math or STEM (1 credit per semester)

Grade: 12

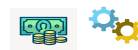
Prerequisite: Honors Pre-Calculus

Recommendations: Achievement of a grade of B or higher in Honors Pre-Calculus.

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This Advanced Placement course in calculus is considered equivalent to two semesters of college calculus. Topics in this course include limits, continuity of functions, differentiation and its applications, integration and its applications, differential equations, calculus of parametric, vector, and polar functions, and analysis of Taylor and Maclaurin series. The course emphasizes a multi-representational approach to calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. Students will make connections between these multiple representations. Students are required to present their solutions clearly and justify their answers. Students are required to take the AP Calculus BC exam in May. Students who score well on the AP exam may receive college credit or advanced placement in their mathematics course in college.

Personal Finance - Earns Math, STEM elective, or Financial Literacy credit



Per Finance (6711)

One semester – 1 Credit in Math, STEM, or Financial Literacy

Grades: 11-12

Prerequisite: Algebra I or Integrated Algebra I and Geometry

Recommendation: Achievement of a C+ or higher in Algebra I or Integrated Algebra I and Geometry

This course is designed for students who want to understand and manage their personal finances. The course emphasizes how mathematics helps us to make wise financial decisions. The spreadsheet is used throughout the course, the commands and features of which are taught in the context of financial topics. Students design and create their own spreadsheets to investigate and evaluate the monetary impact of their financial decisions. This course incorporates a Financial Literacy Certification Program which culminates with the Financial Literacy Certification Test. The test evaluates students' knowledge of budgeting, money, interest, credit, banking, insurance, investing, regulatory agencies, housing, financial and retirement planning, and gauges their ability to manage their own finances. ***This class earns Financial Literacy credit starting with the 2025–2026 school year. It is one of three options to fulfill the financial literacy graduation requirement.** *This course cannot count as BOTH a math (or STEM elective) credit and a financial literacy credit.*

Statistics & Probability

Stat/Prob. (6742)

One semester – 1 Credit in Math or STEM

Grades: 11-12

Prerequisite: Algebra I or Integrated Algebra and Geometry

Recommendation: Achievement of a C+ or higher in Algebra I or Integrated Algebra I and Geometry

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This course includes how to properly collect, describe, graph, and analyze categorical and quantitative data using both calculators and computers. Inferential statistics are introduced through simulations. Probabilistic reasoning is introduced through games of chance and real-life experiences. Other topics include normal distribution and linear regression.

College Math

College Math (6811)

One semester – 1 Credit in STEM- Fall

Grades: 10-12

Prerequisites: None

Required: Texas Instruments Graphing Calculator: TI-84, TI-84 Plus, or TI-84 Plus CE

This is a one-semester course offered in the fall to help students prepare for the SAT. The SAT Math Test focuses on the topics you're most likely to encounter in college and career. Students

will take a practice diagnostic test at the beginning of the semester to identify their individual areas for growth. The topics and instruction will vary each year based on the individual needs of students to improve their foundational math skills while employing test-taking strategies for the SAT Math test.

Introduction to Data Science ★NEW★

Introduction to Data Science (6871)

One semester – 1 Credit in STEM

Grades: 10 – 12

Prerequisites: Successful completion or concurrent enrollment in any level of Algebra II

Introduction to Data Science is a one-semester STEM elective course that serves as an introduction to the principles associated with analyzing big data. Students will focus on learning basic data organization and manipulation as well as appropriate visualization techniques including charts, maps, and dashboards using technology tools such as Tableau and CODAP. The course will focus on hands-on practice as students develop the skills necessary to interact with large data sets effectively. This course strives to highlight the practical and applicable math skills used in a real-world context that students can use beyond their school years. It is appropriate for students curious about exploring the intersection of mathematics, statistics, computer science, and information technology. It applies to future careers in business, communication, finance, government & public administration, information technology, law, and STEM, among others. While a perception around data science is that the mathematics behind it is complex, mathematical ability should not be a barrier to taking the course; rather, student interest should be the main driver for enrollment.



Music

The music curriculum at Joel Barlow is structured to encourage students of all abilities to improve their musical skills and understanding, to develop a sense of excellence in music, and to learn how the arts can create meaning for everyone. Students are given opportunities to study music through the different roles of listener, performer, composer, and theorist. Whether students plan to pursue music as a career, as a life-long passion, or simply as a pastime, they will develop a deeper understanding of creative thinking as a result of having taken a music course.

[Click here for a Music Program Video](#)

- 9th-grade students electing to enroll in Chorus I, Concert Band, and/or String Orchestra are required to enroll for a full year.

- All students seeking enrollment in Advanced Placement Music Theory should be able to demonstrate literacy skills and must complete the required summer work.
- All music courses fulfill the graduation requirement in Fine/Performing Arts.
- The Connecticut Music Educators' Association sponsors the Western Regional Festival and All-State Music Festival in order to recognize highly accomplished student musicians. Those who qualify are invited to participate based on the audition process beginning in November. Students may elect to audition if they are enrolled in a JBHS performing ensemble. Each year a number of Barlow students are so honored.
- The Tri-M International Music Honor Society acknowledges the achievements of the most dedicated and accomplished Barlow musicians. Students may be invited to apply for membership as a junior or senior, based on the recommendation of their ensemble director and the Solo Ensemble recital.

Grade 9	Grade 10	Grade 11	Grade 12
Concert Choir I	Concert Choir I	Concert Choir I	Concert Choir I
Concert Band	Concert Choir II	Concert Choir II	Concert Choir II
Jazz Ensemble	Chamber Singers	Chamber Singers	Chamber Singers
String Orchestra	Concert Band	Concert Band	Concert Band
Guitar I	Jazz Ensemble	Jazz Ensemble	Jazz Ensemble
Guitar II	String Orchestra	String Orchestra	String Orchestra
Music Appreciation	Guitar I	Guitar I	Guitar I
	Guitar II	Guitar II	Guitar II
	Music Theory	AP Music Theory*	AP Music Theory*
	Music Appreciation	Music Theory	Music Theory
		Music Appreciation	Music Appreciation
		Music Appreciation II	Music Appreciation II

Concert Choir I

Concert Choir 1A – (3553), Concert Choir 1B – (3554), Gr 9 Concert Choir (3565)– 1 credit per semester – Fall and/or Spring Semester

Grades 9–12

Prerequisite: None

Concert Choir I is a performance-based music class, offering an introduction to choral singing at the high school level. Previous singing experience is neither required nor expected. The class provides an opportunity for students to develop healthy vocal and choral techniques, music literacy, aural skills, and overall musicianship. Choral repertoire is drawn from musical time periods spanning the history of music, from many cultural forms, and from various styles. Through this repertoire, students explore the impact of history and culture on the arts by participating in ensemble singing. Class activities include performance, discussion, reflection, and evaluation. This course allows students the opportunity to perform in and out of school at concerts, special events, and music competitions/festivals. Students should enroll in two semesters of Concert Choir in order to gain the full benefit of the class and be eligible for department field trips. Choir I, or its equivalent at the high school level, is a prerequisite for all other choral course offerings.

Concert Choir II

Concert Choir 2A - (3563) and Concert Choir 2B - (3564) - 1 credit per semester -Fall and/or spring semester

Grades 10-12

Prerequisite: Concert Choir I

Concert Choir II is an extension of Choir I and is offered for those students who seek to continue the study of choral music at a more advanced level, or for those who have had prior high school level music training. The class provides an opportunity for students to improve their vocal and choral technique, music literacy, aural skills, and overall musicianship. Choral repertoire from various time periods and musical styles is selected to provide the opportunity for more advanced skill development, such as singing in complex harmonies and in a variety of languages. Through participation in this class, students develop skills to become independent music learners. Students in this ensemble perform in and out of school, at concerts, special events, and at music competitions/festivals. Students should enroll in two semesters of Concert Choir in order to gain the full benefit of the class and be eligible for department field trips.

Chamber Singers

Chamber Singers 1A (3503), Chamber Singers 1B (3504), H Chamber Singers 2A (3513), H Chamber Singers 2B (3514) - Full year course - 2 credits

Grades 10-12

Membership by audition

Prerequisite: Concert Choir I

Chamber Singers is offered for the advanced choral musician. This ensemble performs challenging pieces requiring highly-developed musical understanding and ability. Membership is by audition only and is limited for purposes of balance. Auditions take place in late January for the following school year and require students to demonstrate solo, ensemble, and sight-singing skills. The class focuses heavily on performance, and the choir participates in several concerts and events each year, both in and around the Barlow community. Repertoire ranges from Renaissance to contemporary music in 4-8 part harmony and encompasses many different musical styles. The advanced level of the music requires students to work at a rigorous pace, both in class and out, preparing for performances to include school and community events, as well as an annual music competition/festival. Students in this ensemble perform both as members of Chamber Singers and Concert Choir, in and out of school, at concerts, special events, and at music competitions/festivals. After successful completion of the first year, students will receive honors credit for participation in this ensemble; sophomores will not be eligible for honors credit.

Concert Band

Band A (3521), Band B (3522) – Grades 10–12 – 1 credit per semester – Fall and/or Spring Semester

Gr 9 Band (3525) Grade 9– 2 credits – Full-year course – Fall and Spring Semester

This course is offered to students who play traditional woodwind, brass, or percussion instruments. The primary focus of the course is the preparation of band literature for public performance. Students of all levels are welcome, but high-performance standards are expected. Personal skill development, music literacy, and a better understanding of ensemble performance are expected outcomes for each student. Through in-class rehearsal and out-of-class practice sessions, students develop their own performing skills and contribute to creating the ultimate group project.

Jazz Ensemble

Jazz Ens A (3541) and Jazz Ens B (3542) – Full-year course – 2 credits – Fall and Spring

Grades 9–12

Membership by audition

This class meets outside of regular school hours

Auditions for this course occur within the first two weeks of the school year. Instrumentation reflects that of the traditional big-band (trumpets, trombones, saxophones, piano, guitar, bass, drums). Basic music literacy and advanced instrumental technique are required and performance standards for this class are appropriately high for an advanced course at JBHS. The emphasis of the class is to prepare music composed and arranged for a large jazz ensemble. Time is also spent working on improvisation, jazz theory, and history. A broad range of jazz styles is included in the repertoire, from the early 20th century through the present day. The group performs at numerous events in and out of school.

String Orchestra

Gr 9 String Ensemble (3535) – 2 credits – Full-year – Fall and Spring – Grade 9

String Ensemble A (3531) and String Ensemble B (3532) – 1 credit per semester – Fall and/or Spring – Grades 10–12

The orchestra is composed of those students who play the violin, viola, cello, or bass. The focus of the course is on the preparation of orchestral literature for public performance. Students of all levels are welcome but high-performance standards are upheld. This class presents an opportunity for students to develop their individual musicianship and to perform in a large ensemble. Class discussions, listening activities, and small ensemble performances provide students with additional learning opportunities.

Guitar I

Guitar - (3601) - 1 credit - One-semester - Fall or Spring

Grades 9-12

Prerequisite: None

Guitar I will provide students with an introduction to acoustic guitar techniques. Members of the class will learn basic guitar playing skills, including scales, chords, and picking while developing music literacy skills in both standard notation and tablature. With the use of a method book, as well as a repertoire drawn from folk and popular styles, students will acquire basic strumming and picking patterns and will experiment with introductory improvisation techniques. This course is intended for the beginning or amateur player with no formal training. The small group instruction setting will aim to serve players of various skill levels. Students must provide their own acoustic instrument; a limited number of school-owned instruments will be made available to students in need.

Guitar II

Guitar 2 (3611) - 1 credit - One-semester - Fall or spring semester

Grades 9-12

Prerequisite: Guitar I or approval from the instructor

Guitar II is offered for those students who seek to develop more advanced guitar techniques. Instruction will focus on practical playing skills, including finger-picking, barre chords, improvisation, and sight-reading from standard notation, lead sheets, and tablature. Ensemble-playing will be a major focus of this course. Students will continue working to advance their music literacy skills, engaging in arranging and songwriting. Students must provide their own acoustic instruments; a limited number of school-owned instruments will be made available to students in need.

Advanced Placement Music Theory

AP Music Theory (3671, 3672) – Full-year course – 2 credits – Fall and Spring

Grades 11–12

Prerequisite: None

This course is recommended for students who have had at least one year of experience in a high school level music ensemble and experience with reading music. The course is geared for those planning to pursue music after high school and for any student interested in studying the construction of music at an advanced level. The objective of this course is to develop analytical, written, compositional, aural, and sight-singing skills. These skills are exercised through listening, performing, writing, composing, and analyzing musical works. In addition to mastering the rudiments of music, students will compose harmonies, realize figured bass and Roman numeral progressions, analyze harmonic function in traditional four-voice texture, examine tonal relationships, and identify cadence types, modulation, texture, and phrase structure. The study will include music of various time periods, genres, instrumentation, and compositional techniques. This music will be used to observe theory in practice, broaden students' knowledge of musical possibilities, and introduce students to a curriculum comparable with that of a first-year theory course at the collegiate level. Students electing to take this course must satisfactorily complete the required summer work evidencing solid music literacy skills.

Music Theory I

Music Theory – (3571) – 1 credit – One-semester – Fall

Grades 10–12

Music Theory is open to students of all abilities who want to develop music literacy. In this class, students will learn the fundamentals of music theory, including the exploration of the elements of music and how they are used in musical composition. Topics include melody, harmony, rhythm, meter, texture, and form. Students will study music from various genres and time periods to explore and experiment with those structures. Students will listen to music, analyze, arrange, and compose.

Music Appreciation I

Music App (3581) – 1 credit – One semester – Fall or Spring

Grades 9–12

Prerequisite: None

Music Appreciation is an elective course offered to all students. The course focuses on developing listening skills and enhancing a student's understanding of music as an art form. A significant amount of class time is spent listening to a broad range of music: from Bach and Beethoven to the Beatles and Beyonce. The historical perspective of each piece of music or artist is considered, as is the broader context in which music is created. By contrasting new and old, students develop a basic understanding of how the music we hear today is related to that which has come before. Course content and concepts are built around a list of approximately 50 composers and artists. Students will learn about the role of the arts in contemporary society and how the arts can offer meaningful experiences for everyone.

Music Appreciation II

Music App 2 (3591) – One semester – 1 credit – Fall or Spring

Grades 11–12

Prerequisite: Music Appreciation I or 3 years of ensemble participation

This course is intended for students interested in learning more about great music, and about important composers and musicians. The course will explore ideas and concepts covered in Music Appreciation I in more depth. Critical and philosophical writings on music, video and audio recordings, musical scores, and class discussion will help students better understand their roles and opportunities as consumers of music. At least one live concert field trip will be planned.



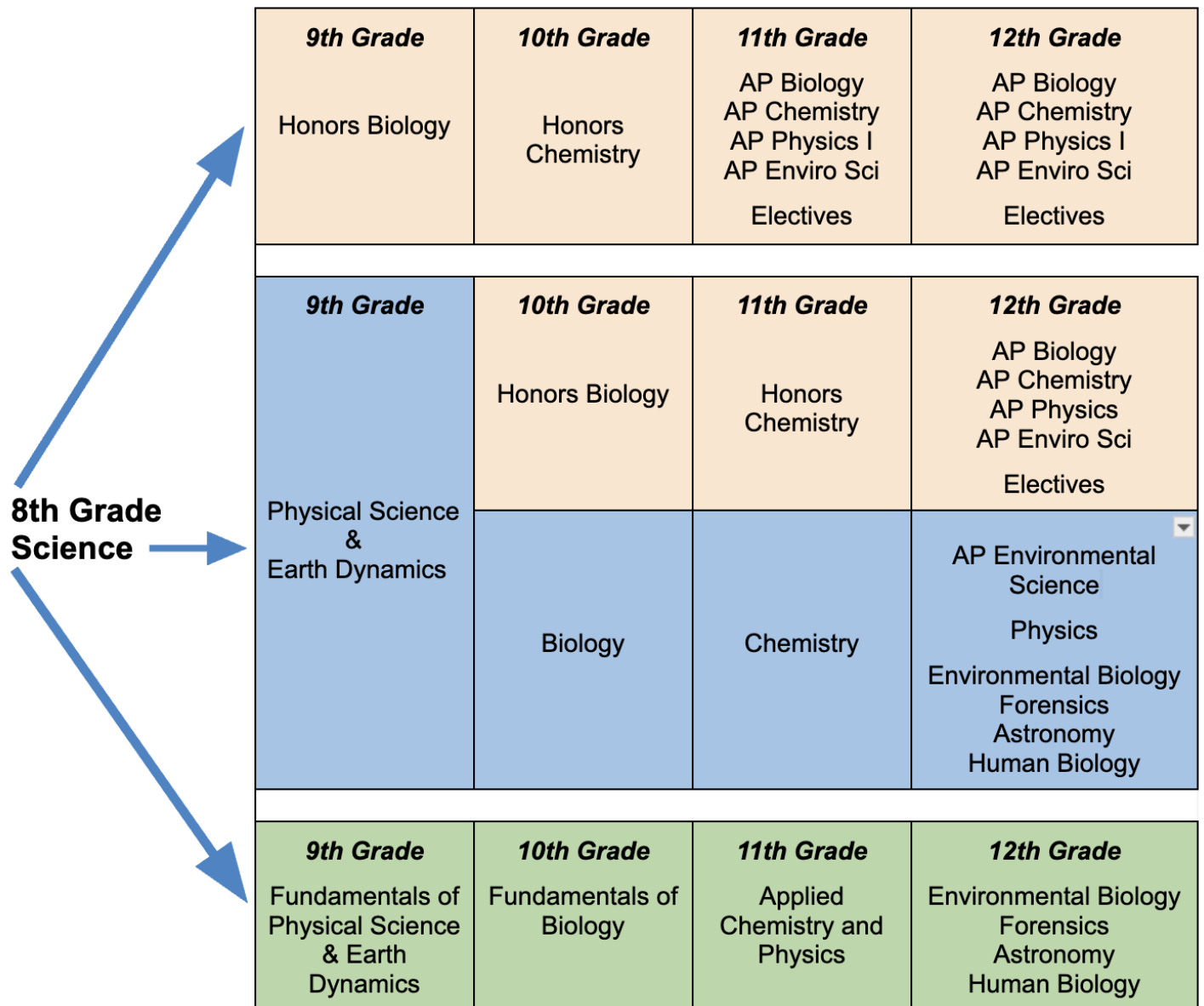
Science

The science courses prepare students to be curious, life-long learners, and science-literate while connecting foundational concepts and discipline-specific content in various scientific areas. Laboratory experience is common to all science courses. For most science courses, extended laboratory time is provided and is detailed in the course descriptions that follow. All students must earn six credits in science to graduate, which count towards the 18 required in the STEM credit distribution. At least two science credits must be in life science (a general biology course) and at least two must be in a physical science (a physical science and earth dynamics, chemistry, or physics course).

***denotes semester course**

Grade 9	Grade 10	Grade 11	Grade 12
Fundamentals of Physical Science and Earth Dynamics	Fundamentals of Biology	*Applied Chemistry	*Applied Chemistry
Physical Science and Earth Dynamics	Biology	Chemistry	Chemistry
Honors Biology	Honors Biology	Honors Chemistry	Honors Chemistry
Science Research I and II (semester or full year)	Honors Chemistry	Applied Physics*	Applied Physics*
	Chemistry	Physics	Physics
	Environmental Biology	AP Physics 1	AP Physics 1
	Science Research I and II (semester or full year)	AP Biology	AP Biology
		AP Chemistry	AP Chemistry
		AP Environmental Science	AP Environmental Science
		Environmental Biology	Environmental Biology
		*Astronomy	*Astronomy
		*Forensics	*Forensics
		Human Biology (semester or full year)	Human Biology (semester or full year)
		Science Research I and II (semester or full year)	Science Research I and II (semester or full year)

Typical 4-year sequences in Science



Fundamentals of Physical Science and Earth Dynamics

Fundamentals of Phy Sci Earth Dyn (7185)

Full Year – 2 Credits in Science or STEM

Grades: 9–12

Prerequisite: None

One double lab period per cycle

The fall semester of this course focuses on Earth's profile, plate tectonics, and man's impact on our planet. The spring semester continues where the fall semester leaves off, exploring more ways in which humans interact with the planet. This unit includes rich discussions and activities regarding the various cycles on our planet, like the water cycle, carbon cycle, and nitrogen cycle. Next, the solar system and Earth's place in this system are investigated. Student achievement is evaluated by homework, laboratory work, projects, and tests. As a result, students have a variety of means to demonstrate their understanding and skills in this course. Active participation in class is encouraged and laboratory work is an important part of the course. More individualized instruction is provided to assist students in understanding course concepts. Some labs are inquiry-based where students design and carry out their own experiments with appropriate assistance. Students are encouraged to bring their own devices (laptops, iPads, SMART phones, etc.) for use during class and labs.

Physical Science and Earth Dynamics

Phy Science (7075)

Full Year – 2 Credits in Science or STEM

Grades: 9–12

Prerequisite: None

One lab period per cycle

This course is closely aligned with Next Generation Science Standards (NGSS), balancing physical and earth science content with engineering practices and crosscutting concepts that permeate all fields of science. There are five units of study that define the school year: Big Bang Theory & Cosmology, Gravity and Orbital Motion, Mechanisms that Shape Earth's Surface, The Carbon Cycle and Climate Change, and Human Influence on Planet Earth. Each unit runs for an average of eight weeks. Students use scientific thought and experimentation to learn science skills and concepts. Students have numerous opportunities to think about and apply the seven crosscutting concepts in science: Stability and Change, Cause and Effect, Patterns, Systems, and System Models, Energy & Matter, Structure and Function, and Scale, Proportion, and Quantity. Active participation in class is expected, and lab-based work is an integral part of the course. All course assignments, including test and quiz announcements, are posted on Google Classroom. While electronic devices are offered to those who need them, students are encouraged to bring their own personal devices to class.

Fundamentals of Biology

Fundamentals of Bio A and Fundamentals of Bio B (7171 and 7172)

Two semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 10–12

Prerequisite: None

One double lab period per cycle

This course is designed for students who benefit from added support to achieve success in science. The course focuses on developing students' skills, particularly in the areas of scientific reading, reasoning, experimentation, graphing, and writing. Compared to Biology, the course has a slower pace and modified content standards, yet the topics are much the same. The fall semester focuses on the characteristics of living organisms, scientific models and observations, cells, bacteria and viruses, cellular transport, ecology, and cell functions such as photosynthesis and cellular respiration. The spring semester focuses on the structure and replication of DNA, cell division for growth and reproduction, genetics, protein synthesis, and evolution. Lab activities are designed to allow students to construct knowledge of biological concepts for themselves in a meaningful way. Consistent effort is made to make the scientific topics relevant to the student's life.

Biology

Biology A and Biology B (7111 and 7112)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 10–12

Prerequisite: None

One double lab period per cycle

The fall semester focuses on the characteristics of living organisms, scientific thinking, cells, bacteria/viruses and immunology, cellular transport, ecology, and cell functions such as photosynthesis and cellular respiration. The spring semester focuses on the structure and replication of DNA, cell division, genetics, protein synthesis, and evolution. The curriculum represents an integration of information and lab activities designed to enable students to construct knowledge of biological concepts for themselves in a meaningful way. Consistent effort is made to make the scientific topics relevant to the student's life. The course requires good reading, note-taking, and study skills. This college preparatory Biology course provides a foundation for students who wish to continue to study science after high school and prepares them for the NGSS assessment in their junior year.

Honors Biology

H Biology (7125)

Full Year – 2 Credits in Science or STEM

Grades: 9–12

Prerequisite: None

Recommendations: High achievement in 8th-grade science or 9th-grade PSED, strong student skills

One double lab period per cycle

This course is designed for students who are highly motivated, self-directed learners possessing strong reading, writing, critical thinking, and abstract reasoning skills. Lectures and laboratory investigations will examine biochemistry, the characteristics of living organisms, prokaryotic and eukaryotic cells, cell membrane structure and transport, photosynthesis and cellular respiration, the structure and replication of DNA, cell division, protein synthesis, genetics, and evolution. Woven throughout the year is also an emphasis on the scientific process of asking and answering questions about phenomena through independent research and experimentation. The course further develops students' laboratory skills of designing and conducting experiments, collecting and analyzing data, stating claims, and providing sound evidence and reasoning. This course differs from the Biology course in that the pace is faster and more independent learning is required of students. Furthermore, the content is explored in greater depth, the assessments require the use of higher orders of thinking, and the lab reports and projects are more extensive.

Applied Chemistry

Applied Chem (7001)

One Semester – 1 Credit in Science or STEM

Grades 11–12

Prerequisite: None

One double lab period per cycle

Applied Chemistry offers students an opportunity to investigate the relevance and application of chemical concepts utilized in everyday routines such as their kitchens. The chemistry content is taught in an innovative and meaningful way. Students are introduced to chemistry concepts on a need-to-know basis as they explore real-world challenges seen in cooking. Chemistry concepts include safety in the laboratory; matter-properties and changes; energy transformation in physical changes and chemical reactions; chemical formulas; and chemical reactions. The hands-on laboratory component will examine the chemical phenomena in the foods that we eat and how food is packaged, advertised, and properly prepared. Students will develop writing skills useful in the scientific community based upon the audience. The students will incorporate life skills such as cooperation, teamwork, and collaboration when working in the laboratory and on selected projects.

Chemistry

Chem A and Chem B (7201 and 7202)

Two Semesters – Two Credits in Science or STEM (1 credit per semester)

Grades: 10–12

Prerequisites: None

Recommendations: Successful completion of Algebra I

One double lab period per cycle

Chemistry is the discipline that identifies atoms and molecules as the fundamental units of nature and applies knowledge of their behavior to explain matter, its structure, properties, and composition, and energy and the changes they both undergo. Specific topics include types of matter, atomic structure, the arrangement of electrons and chemical properties, the periodic table, ionic compounds, covalent bonding and molecular structure, chemical reactions, the mole, stoichiometry, the study of solids, liquids, gases and solutions. In Chemistry, the material is often quantitative and requires considerable use of basic algebra. Strong math skills are highly recommended. In addition, the course requires high levels of abstract reasoning, critical thinking and problem-solving. The laboratory experience is an important and essential aspect of the course. Students will expand their familiarity and skill with laboratory equipment and experimental techniques. They will also further develop their ability to interpret and analyze data. Scientific writing is experienced in the form of lab reports.

Honors Chemistry

H Chem A and H Chem B (7211 and 7212)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 10–12

Prerequisites: None

Recommendations: Achievement of a grade of B or higher in Algebra I

One double lab period per cycle

This course is designed for students who are highly motivated, self-directed learners possessing strong reading, writing, math, critical thinking, and abstract reasoning skills. Chemistry is the discipline that identifies atoms and molecules as the fundamental units of nature and applies knowledge of their behavior to explain matter, its structure, properties, and composition, and energy and the changes they both undergo. Specific topics for the fall semester include measurements, types of matter, energy changes, atomic structure, the periodic table, ionic and covalent compounds, the mole, and chemical reactions. Topics for the spring semester include stoichiometry, the arrangement of electrons, quantum mechanics, chemical bonding, gas laws, intermolecular forces, acids and bases, and solutions. The laboratory experience is an important and essential aspect of the course. Students will expand their familiarity and skill with laboratory equipment and experimental techniques. On occasion,

students will be expected to design and write their own laboratory experiments. They will also further develop their ability to interpret and analyze data. Extensive writing and problem-solving skills are utilized in the form of lab reports. Assessments require elevated use of higher orders of thinking, and the lab reports and projects are more extensive and additional independent learning is also required. Honors Chemistry differs from the Chemistry course in that it proceeds at a faster pace and with greater depth and more mathematical rigor to prepare students with the knowledge and skills to take AP Chemistry later in their course of studies.

Advanced Placement Chemistry

AP Chem A and AP Chem B (7221 and 7222)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 11-12

Prerequisites: Honors Chemistry and Algebra II

Recommendations: Achievement of a grade of B- or higher in Honors Chemistry

Required: Summer Work

Two double lab periods per cycle

The Advanced Placement Chemistry course is designed to be the equivalent of the general chemistry course taken in college and is to be taken only after the successful completion of Honors Chemistry and Algebra II. The student in this course will attain an advanced understanding of chemical fundamentals and a fluency in dealing with chemical problems and calculations. The Advanced Placement course in chemistry utilizes one of the College Board-approved college textbooks. Units covered in the course include: Atomic Structure and Properties, Molecular and Ionic Compound Structures and Properties, Intermolecular Forces and Properties, Chemical Reactions, Kinetics, Thermodynamics, Equilibrium, Acids and Bases, and Applications of Thermodynamics including Electrochemistry. Laboratory work will develop more sophisticated laboratory skills and will require the student to make observations of chemical reactions, record data, make calculations and interpret results based on the quantitative data obtained, as well as think critically and problem solve. Students will be required to take the Advanced Placement Exam. AP Chemistry integrates technology, writing, and research in its curriculum. The applied technology includes frequent use of calculators, computers, and laboratory instrumentation. Extensive writing is experienced in the form of lab reports, written assignments, and interpretation and analysis of data. All AP Chemistry students will perform authentic scientific research to deepen their knowledge on a topic that is connected to chemistry that they have found intriguing. Through this research project, students will develop life skills that include writing a proposal and research paper, statistical analysis, networking, creating professional boards and posters, and conducting oral presentations.

Applied Physics

Applied Phys. (7012)

One Semester – 1 Credit in Science or STEM

Grades: 11-12

Prerequisites: None

One double lab period per cycle

Applied Physics offers students an opportunity to investigate the relevance and application of physical concepts utilized in everyday routines. Students are introduced to physics concepts on a need-to-know basis as they explore relevant issues in Newton's Laws and Transportation. Physics concepts include Newton's laws of motion, momentum, and conservation of energy, gravity, work and energy. Students incorporate life skills such as compromise, cooperation, teamwork, and collaboration when discussing the necessary elements needed to produce a successful finished project.

Physics

Physics A and Physics B (7301 and 7302)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Algebra II (any level)

Recommended: Achievement of a grade of C or higher in any level of Algebra II

One double lab period per cycle

The emphasis in the course is on connecting the themes of physics with the physics of your surroundings as we develop mathematical models (relying heavily on Algebra I and II skills) to explain and understand the nature of the physical phenomenon of our world. By the conclusion of the course you may very well see numerous physics principles and concepts in your own world of sports, driving, or even riding elevators. The Physics course is organized around a number of scientific models helping to deliver a coherent introduction to the how's and why's of objects moving in your world. We apply structured inquiry techniques where students design and perform a variety of experiments to test hypotheses and develop models. Student groups are encouraged to decide what data will be collected, how much, and with which tools in the physics laboratory. Student work in the course is largely collaborative in nature; students are expected to answer both what they know, and why they know, based on empirical evidence and their own observations of objects moving and interacting with each other. Coursework includes problem-solving approaches, real-life and virtual laboratory experimentation, data collection techniques using laboratory probeware and sensors, graphing and mathematical modeling, written and oral lab reporting, whiteboarding, class discussions, research and scientific thinking. Units of study include but are not limited to: Constant Velocity, Uniform

Acceleration, Projectile Motion, Balanced Force, Net Force, Energy Transfer, and Momentum Transfer Models.

Advanced Placement Physics I

AP Physics A and AP Physics B (7411 and 7412)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 11-12

Prerequisites: Honors or Advanced Pre-Calculus or concurrent enrollment in Honors or Advanced Pre-Calculus

Required: Summer work

Two double lab periods per cycle

AP Physics 1 is an algebra-based physics course equivalent to a one-semester algebra-based college physics course. The course covers kinematics, projectile motion, Newton's Laws, work and energy, momentum and impulse, rotational dynamics, Oscillations and Fluids. The course is organized around foundational ideas in science: the properties of objects and systems, forces and fields used to describe and explain interactions between objects, the changes that those forces and fields can bring about, as well as the constraints that result from conservation laws. Inquiry-based investigations are emphasized, where students engage in the practice of science through experimenting, analyzing, making conjectures and arguments, and solving problems in a collaborative setting. Students will be expected to take the AP Physics 1 exam in the spring semester. Students will complete a project on a topic of their choice after the AP exam.

Advanced Placement Biology

AP Bio A and AP Bio B (7151 and 7152)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Honors Biology

Recommendations: Achievement of a B- or higher in Hon Bio and a B- or higher in Chemistry or Hon Chem

Two double lab periods per cycle

Advanced Placement Biology is the equivalent of a college-level introductory Biology course. The outline of the course follows that suggested by the College Board. Students will be required to take the AP exam. This course goes beyond the introductory high biology course in the breadth and depth of content studied, the sophistication of the textbook, and laboratory work performed, as well as the time and effort required. Topics include biochemistry and cell biology, photosynthesis and cellular respiration, classical and molecular genetics, evolution and phylogenetics, and ecology. Students will have opportunities to connect their biological and scientific knowledge to major social issues to help them become scientifically literate

citizens. Students conduct lab investigations including leaf pigment chromatography, enzyme function, and electrophoresis. In the course of this work, students use laboratory instrumentation including microscopes, spectrophotometers, electronic balances and electrophoresis apparatus. Each test is modeled on the AP exam. The textbook is a college-level text. Students are expected to do considerable independent learning.

Advanced Placement Environmental Science

Advanced Placement Environmental Science A and B (7181 and 7182)

Two Semesters – 2 Credits in Science or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Biology and Chemistry

Recommendations: Achievement at a level of B- or higher in Honors Biology or Biology and achievement at a level of B- or higher in Honors Chemistry or Chemistry

Required: Summer work

One double lab period per cycle

Advanced Placement Environmental Science (APES) is a year-long course designed to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationship of the natural world, to identify and analyze environmental problems, both natural and anthropogenic, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Topics taught include ecosystems, biodiversity, populations, earth systems and resources, land and water use, energy resources and consumption, atmospheric pollution, aquatic pollution, terrestrial pollution, and global change. These topics are explored through four main big ideas: energy transfer, interactions between earth systems, interactions between different species and the environment, and sustainability. Designed to be a course in environmental science rather than environmental studies, AP Environmental Science includes a strong laboratory component. Experiences in the laboratory provide students with important opportunities to test concepts and principles that are introduced in the classroom, explore specific problems with a depth not easily achieved otherwise, and gain an awareness of the importance of confounding variables that exist in the “real world.” Students must have strong math skills, as math computations are part of the course and the AP Environmental Science exam. Students are expected to integrate science topics previously learned in their course of studies and to complete considerable independent learning with a college-level text.

Environmental Biology

Environ Bio A and Environ Bio B (7141 and 7142)

Two Semesters – 2 Credits in Science or STEM – (1 credit each semester)

Grades: 10-12

Prerequisite: Biology (any level)

Environmental Biology is a full-year, performance-based, interdisciplinary science course designed to challenge students to think about their natural world. Students in Environmental Biology will have the chance to become amateur field biologists. They will receive training in wildlife and plant censusing, animal calls, comparative anatomy, identification, winter tracking, forestry, outdoors skills, and more. A strong emphasis is placed on identifying and studying local plants and animals, outdoor work, and field research. Students should be aware that poison ivy and deer ticks are very common in our study area. This course involves considerable walking, cross-country hiking, and outdoor fieldwork in all kinds of weather, and therefore requires appropriate clothing. The course is suitable for students of all abilities and will broaden their knowledge in the sciences, adding to their knowledge gained from their first year of biology.

Human Biology ★NEW – SECOND SEMESTER ★

Hum Bio (7131)

One or two semesters – 1 or 2 Credits In Science or STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Biology (any level)

Recommendation: Achievement of a B- or higher in Honors Biology or Biology

One double lab period per cycle

Human Biology offers a foundational exploration of the inner workings of the human body with a focus on anatomical and medical terminology. This course is designed for students who are motivated to deepen their understanding of human biology and ideal for students interested in expanding their vocabulary and understanding the body's levels of organization and their interconnections. In the fall semester, students study human anatomy and physiology, covering major tissues and organ systems. The units are taught through case studies, supplemental materials, and various dissections. Learning is enhanced through laboratory activities, including: examining microscope slides of major tissues, identifying bones from skeletons and skulls, learning about human muscles through frog dissections, investigating the nervous system by studying the brain, dissecting a sheep brain, and exploring vision by dissecting a cow eye. In the spring semester, students continue their exploration of the human body by studying the following systems: circulatory, blood and immunity, digestive, respiratory, urinary, and endocrine. The course culminates with a detailed dissection of a preserved fetal pig, allowing students to observe and interact

with structures related to the year's primary units of study. This hands-on experience will provide students with a comprehensive understanding of human biology through real-life anatomical structures. Students have the option to take only the first semester or both semesters. *Parents may opt their student out of select lessons or units per Board of Education curricular exemption policy.

Forensic Science

Forensics (7161)

One Semester – 1 Credit in Science or STEM

Grades: 11-12

Prerequisite: Biology (any level)

Recommendations: Successful completion of a chemistry course

Forensic Science is a one-semester, performance-based, interdisciplinary science course designed to challenge students to think critically. This course is suitable for students of all ability levels, as long as they have successfully completed a biology course. The completion of a chemistry course is recommended but not required. Throughout the course, numerous lab experiences (i.e., blood typing, firearm evidence, spatter patterns, hair, and fiber analysis) and write-ups will be provided to satisfy mastery-based credit requirements. This course will provide insight into the American legal system and process and the application of forensics within that system. Concepts and techniques in physics, chemistry, biology, anthropology, math, and debate/argumentation will be explored and applied throughout the course. Students will apply their knowledge and skills in order to test and interpret evidence. In addition, students will present evidence in writing. This class will provide an introduction for students intending to pursue careers in law enforcement, criminal justice, or litigation.

Astronomy

Astronomy (7092)

One Semester – 1 Credit in Science or STEM

Grades: 11-12

Prerequisite: Algebra I and Geometry

Students in Astronomy are invited to investigate their curiosities about the cosmos. With today's technology, tools like the Hubble Telescope, James Webb Space Telescope, and Euclid Telescope, students can access images and information about a wide array of astronomy topics. The universe is often at their fingertips! During the first quarter, students build foundational knowledge in astronomy such as the concept of the astronomical unit, the magnitude scale, and the nature of electromagnetic radiation. The second quarter shifts in style, putting more responsibility on students. Upon selecting a unit of study from our textbook, students read the unit to build a basic understanding. They then access other resources, such as websites and books, in an effort to focus their research and build upon what they have already learned. Ultimately, students design a video that is aimed at teaching their classmates

the topic they have explored. Aside from a few lessons and follow-up quizzes, the bulk of a student's grade for the second quarter is determined by their progress and completion of the final product (educational video). The project-based portion of the course allows for much teacher-student collaboration in an effort to build a comprehensive video that explores a subject deeply. Students gain a lot of experience with time-management, editing, and exerting grit with these lofty projects.

Honors Introduction to Medical Care

H Med Care A and H Med Care B (5041 and 5042)

Two Semesters – 2 Credits in STEM (1 credit per semester)

Grades: 11-12

Prerequisite: Biology

Recommendations: Achievement of B- or higher in Honors Biology or Biology

Requirements: Summer Work

1 double lab period per cycle

This is a full-year course designed for juniors and seniors interested in the healthcare system. The major emphasis is on the emergency medical stage of the healthcare system, following the curriculum and requirements set forth by the CT Department of Public Health. The course covers all techniques of emergency medical care presently considered within the realm of the EMT-Basic (EMT-B), as well as the operational aspects of the job that one will be expected to perform. As a healthcare professional, the trained EMT will become an important link in the chain of the pre-hospital emergency care delivery system. To ensure this final step, the student will be given an opportunity to volunteer with a town ambulance corps and assist at a hospital. Please note that as this course does train students to take the EMT-B certification exam, this course is governed by the Department of Public Health. As such, it must adhere to strict attendance requirements of no more than 10 missed class periods. Students are also required to do 12 hours of observation time at Danbury Hospital, participate in the EMT Olympics hosted by Bethel High School in May, and partake in a multiple casualty demonstration at Barlow Palooza. Summer work is also required. In addition, there are physical requirements to successfully complete practical skills of the course and become a certified EMT. These include: the ability to carry a 40-50 lb pack of equipment; the ability to operate and maneuver a stretcher into/out of the ambulance and into/out of residences; the ability to carry a patient in a stair chair or on a backboard (with a partner) down stairs and into an ambulance; the ability to rapidly extricate and carry up to 125 lbs. Students will be taught proper body mechanics and techniques to make this possible without injury. Upon successful completion of all program requirements, the student will be permitted to take both written and practical examinations for Connecticut and National EMT-B certification.

Scientific Research ★REVISED★

Sci Research A and Sci Research B (7501 and 7502)

One or two semesters – 1 or 2 Credits in STEM

Grades: 9–12

Prerequisite: None

Scientific Research is a semester course taken in addition to a student's regular science course. It is designed for students interested in pursuing research in biological, chemical, physical, medical, and/or engineering science. The course is differentiated to meet students' individual needs and interests and can be taken for only one semester or two. Students entering the first semester will learn about scientific literature and methodology. More specifically, they will develop a research question and hypothesis, locate authentic research papers relevant to their area of research, and synthesize valid sources to provide an overview of the topic and past research. They will go on to pose scientific questions and a hypothesis, design and defend a clear and logical procedure for their research question, and provide methods of analysis for interpreting their finding. Students who go on to take a second semester of Science Research will implement their self-designed methodology for their original research questions and evaluate their findings. They will produce a variety of means of communicating their scientific research including a formal paper, poster pre-presentation, and oral presentation. They will have options of where to present their work, but all students will present in front of an authentic audience and participate in a peer review of their research.



Social Studies

Grade 9	Grade 10	Grade 11	Grade 12
Our Western Tradition*	Issues in World Geography for the 21st Century American Government Debate and Strategic Argumentation I East Asian Cultures AP Seminar* AP US Government and Politics	United States History* African American/Black and Puerto Rican/Latino Course Studies* Madman as Hero The Economy in a Global Age    Physical Anthropology Cultural Anthropology Advanced Placement U.S. History* Advanced Placement Psychology   AP US Government and Politics	African American/Black and Puerto Rican/Latino Course Studies* Madman as Hero The Economy in a Global Age    Cultural Anthropology Advanced Placement Comparative Government and Politics* Advanced Placement Psychology*   AP US Government and Politics

* Indicates courses requiring two semesters.

Graduation requirements include the passing of one year of Our Western Tradition or 9th Grade Humanities. Students must also successfully complete one semester of a non-Western course, selecting from: World Geography, Debate and Strategic Argumentation, East Asian Cultures, Art History, AP Comparative Government and Politics, Physical Anthropology and Cultural Anthropology. State law also requires a full-year of United States History and a semester of civics, which is our American Government course.

Our Western Tradition

West Civ (8105) – Full-year course – 2 credits – Fall and Spring

Grade 9

Prerequisite: None

In the late 19th century, the phrase "Western Civilization" was coined to refer to 5,000 years of Europeans rising to power. Some credit the West for giving the world the gifts of democracy, human rights, mathematics, science, art, technology, medicine, and monotheism. Others blame it for centuries of global war, economic inequality, imperialism, and disregard for the environment. In this course, students will examine a variety of sources and perspectives and be required to make connections to current events. By analyzing and interacting with readings, images, ideas and events from the past and the present, students acquire the skills needed to be active learners and responsible citizens. Students are consistently challenged to develop and refine their reading, writing, and critical thinking skills, which will be assessed through a variety of modalities. All students will be guided through the year-long "Lens" research project. This course lays the foundational skills and content knowledge that students will leverage in future social studies coursework including the non-western elective requirement and the American Government requirement during their sophomore year.

Issues in World Geography for the 21st Century

World Geo A (8201) – 1 credit – One-semester – Fall or Spring

Grade 10

Prerequisite: None

Students examine the physical, political, economic, social, and cultural aspects of Asia, Africa, the Middle East and/or Latin America with the purpose of investigating their roles in our emerging global society. Geographic skills, along with research, problem-solving, and active debating of current global and cultural issues are emphasized in the course. Students learn to extract relevant information from a wide variety of sources and integrate this information into well-constructed position statements and arguments. By confronting global issues, students engage in an exchange of ideas that fosters intellectual curiosity and civic responsibility. This course meets the non-Western course graduation requirement.

American Government

Am Gov't A – (8241) – 1 credit – One semester – Fall or Spring semester

Grade 10–12

Prerequisite: None

This course addresses the basic framework of the federal government and the complexities of governing the American people. It begins with the development of American philosophy, examines the Constitution with a focus on the functions and interactions of the three branches of government, and concludes with an intensive study of the Bill of Rights. Current government issues are also explored. Students engage in an exchange of ideas that fosters intellectual curiosity and civic responsibility. Research, thinking, reading, and writing are emphasized in the course. Students learn to extract relevant information from varied sources and construct thoughtful position statements and persuasive essays. Students debate controversial topics during seminar discussions.

Debate and Strategic Argumentation I

Debate - (8271) - One-semester - 1 credit - Fall or Spring

Grades 10 - 12

Prerequisite: None

There can be no better "open and active exchange of ideas" than a good debate. In a democratic society where questions of policy are by definition matters of public discussion, the process of debate is the force that drives what Oliver Wendell Holmes called "the marketplace of ideas." Through analysis of ideas, dialogue and persuasion, the hope is that the best policy will prevail thereby benefiting the many to the greatest extent possible.

But debate is not easy. Skillful debaters require an understanding of complex issues, the skill in building organized and persuasive cases and lastly the ability to defend them from scrutiny. This course is intended for students seeking to improve their skill in competitive debate as well as those who wish to sharpen their rhetorical and logical acumen. By studying debate theory, rhetoric, case building along with the intricacies of constitutional law, ethical reasoning and taking on the task of governing India, Mexico, or South Africa you will become a better informed and more effective communicator. The person who is skilled in making a case and defending it has an advantage in virtually every profession from academic, politics and law to science, technology, and business. Consequently, participation in the debate team is encouraged but not required. This course meets the non-Western course graduation requirement.

East Asian Cultures

East Asian - (8251) - One-semester - 1 credit - Fall or Spring

Grades 10-12

Prerequisite: None

This course involves an intensive consideration of Asian culture with the goal of understanding Asia's place in the modern world. A specific focus is on the student's ability to effectively research and support their thinking in writing and through the spoken word. Students learn to extract relevant information from a wide variety of sources and integrate this information into well-constructed position statements. The course considers the religion, philosophy, and world view of East Asia, focusing on the comparisons with the West. This is followed by a broad investigation of the evolution and present nature of the cultures of China and Japan. This course meets the non-Western course graduation requirements.

United States History

US History A and US History B - (8301 and 8302) - Full year - 2 credits - Fall & Spring

Grades 11-12

Prerequisite: None

In United States History, students augment their understanding of significant themes and ideas that shape our changing notion of freedom, independence, and citizenship. Instead of marching through the curriculum, various essential questions frame the course. What role should the U.S. play in foreign affairs? What role should the U.S. government play in the lives of Americans? What does it mean to be an American? A concerted effort is made to link all learning to current events, showing why it matters to "know" American History. Students will be asked to analyze and interact with an array of primary and secondary readings, images, political cartoons, statistics and perspectives throughout the course. Students' skills and knowledge will be assessed through a variety of strategies, including the use of Document Based Questions, debates and simulations of key fundamental historical moments and decisions. A research-based project will be completed during the second semester using the exploratory writing method.

Advanced Placement U.S. History

AP US Hist A and AP US Hist B – (8331 and 8332) – Full-year – 2 semesters – 1 credit per semester

Grade 11

Summer Work Required

Advanced Placement United States History is designed to be the equivalent of a college-level introductory history course. It gives students a grounding in U.S. History and in major interpretive questions that are derived from the study of selected themes across time and place. Students study the political, social, economic, diplomatic, intellectual, and cultural history of the United States. Students are expected to analyze and interpret primary sources and compose analytical essays. Students are required to take the Advanced Placement U.S. History exam in May. Satisfactory completion of the summer assignment is a prerequisite for the course. No student will be allowed to take AP History unless the summer requirement is met in full.

AP Comparative Government and Politics

AP Comp Gov't A and AP Comp Gov't B – (8341 and 8342) – Full year – 2 credits– 1 credit per semester

Grade 12

Prerequisite: American Government

Summer Work Required

Advanced Placement Comparative Government and Politics offers students the opportunity to expand beyond the more traditional courses to study a variety of political systems around the world. The course is a full-year college course that provides students with a coherent knowledge of global studies by evaluating six world political systems: the United Kingdom, Russia, China, Nigeria, Iran and Mexico. The course is conducted as a seminar demanding a high degree of student involvement. Lesson formats include individual and group student presentations, teacher lectures, student and teacher-led discussions, and both formal and informal debates. A variety of readings supplement the text. Lessons and assignments are designed to develop analytical writing skills, substantiation of arguments, and detection of logical fallacies. Students are required to take the Advanced Placement Comparative Government and Politics exam in May. Admission to this course is by department recommendation. Satisfactory completion of the summer assignment is a prerequisite for the course. This course meets the non-Western course graduation requirement. No student will be allowed to take AP Comparative Government unless the summer requirement is met in full.

Advanced Placement Psychology– Earns Humanities or STEM elective credit



AP Psych A and AP Psych B (8961 and 8962) – Full-year – 2 credits – 1 credit per semester

Grades 11 –12

Full-year course

Summer Work Required

The Advanced Placement Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students also learn about the ethics and methods psychologists use in their science and practice. The course is conducted as a seminar demanding a high degree of student involvement. Lesson formats include individual and group student presentations, teacher lectures, student and teacher-led discussions, and informal debate. A variety of readings and extensive research supplement the text. Lessons and assignments are designed to develop analytical thinking and writing skills, the close explication of texts, polished presentation skills and mastery of the lexicon of psychology. Students are required to sit for the Advanced Placement Psychology test in May. Admission to this course is open to students prepared with requisite reading and writing to master a college-level course. Satisfactory completion of the summer assignment is a prerequisite for the course. No student will be allowed to take AP Psychology unless the summer requirement is met in full.

Advanced Placement US Government and Politics

(Grades 10–12– 1 credit),

Summer Work required

Prerequisite: American Government strongly recommended

Advanced Placement US Government and Politics provides a college-level introduction to key political concepts, ideas, institutions, policies, interactions, roles and behaviors that characterize the constitutional system and political culture of the United States. Prior understanding of the foundations of American democracy, the three branches of government and their interactions, and the tenets of the Constitution and Bill of Rights is assumed. Foundational documents and Supreme Court cases are an integral part of the course and necessary for students to understand the philosophical underpinnings, significant legal precedents, and political values of the US political system. The course requires the study of 11 foundational documents, including the US Constitution, and 15 landmark Supreme Court cases. The required Political Science Research or Applied Civics project adds a civic component to the course, engaging students in exploring how they can affect, and are affected by, government and politics throughout their lives.

African-American/Black and Puerto Rican/Latino Course Studies

African Am/Black&Puerto Rican/Latino A and B (8607 and 8608) – Full-year course – 1 credit per semester
Grades 11-12

Prerequisite: None

The course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of African American/Black and Puerto Rican/Latino people in the U.S. Students will examine how historical movements, legislation and wars affected the citizenship rights of these groups and how they, both separately and together, worked to build U.S. cultural and economic wealth and create more just societies in local, national, and international contexts. Coursework will provide students with tools to identify historic and contemporary tensions around race and difference; map economic and racial disparities over time; strengthen their own identity development and address bias in their communities.

Madman as Hero

Madman (8411)

H Madman (8421) - Honors credit

One-semester - 1 credit - Fall

Grade 11-12

Summer Work Required for honors credit

Prerequisite: None

Madman as Hero offers students an in-depth analysis of Fascism, the Holocaust, and World War II. The course achieves this with a focus on totalitarianism, demagoguery, genocide, and antihumanism. The curriculum is divided into units on German history, the roots of anti-Semitism, Nazi ideology, the failure of democracy, the use of propaganda, persecution, the Final Solution, and World War II. The course culminates with a look at present-day neo-Nazi movements in the United States and Europe. This course is designed to imbue in students an understanding of responsible citizenship and respect for equal rights and democratic values. The students are repeatedly asked to focus on America's cultural diversity and the role every individual must play to keep a society free. There is a decided emphasis on writing in this course. Students are expected to write analytical and position papers and complete an oral history project. This course may be taken at the honors or regular level. No student will be allowed to take Honors Madman as Hero without properly completing the summer work, which is due on the first day of class.

The Economy In A Global Age - Earns Humanities elective, STEM elective, or Financial Literacy credit



Economics B (8472) - One-semester - 1 credit - Spring

Grades 11-12

Prerequisite: None

This one-semester course provides students with an introduction to basic macro and microeconomic concepts. Attention is given to the nature and function of markets. Students are given opportunities to apply the concepts of supply and demand to markets and investigate the role the government plays in the economy. Another emphasis of the course is on public policy. Students investigate international trade (NAFTA, GATT, most favored nation status), the global economy, human rights and issues of social responsibility, multinational corporations, technology, taxation, and fiscal policy. By analyzing and interacting with data, students are consistently challenged to think critically. ***This class is one of three options to fulfill the financial literacy graduation requirement. This course earns either Humanities elective, STEM elective, or Financial Literacy credit beginning with the 2025 - 2026 school year.**

Anthropology, Cultural

Cul Antr (8432) - One-semester - 1 credit - Spring

H Cul Antr (8442) - One-semester - 1 credit - Spring

Grades 11-12

Prerequisite: None

Anthropology is literally the study of man. Cultural Anthropology is a challenging and demanding course that may be taken at the honors or regular level. Students who withdraw from Honors Physical or Cultural Anthropology after the deadline without teacher and department approval will receive a Withdrawn/Failure for the remainder of the course. This course meets the non-Western course graduation requirement.

Cultural Anthropology is the study of human beings from the perspective of cultural universals. This course will examine topics that apply to all human cultures at all times and in all places. Linguistics, child-rearing, religion, marriage, family life and personality development will all be examined in detail. Students will read several classic papers in the field, and look at fascinating cultures from around the world, as well as our own. Students may enroll in this class for Honors Credit.



Technology



The technology department offers a diverse array of courses to cater to various creative and technical interests. In the Web Design class, students are introduced to the fundamentals of website creation using HTML and CSS.

The 2D Illustrator course delves into the world of two-dimensional computer design using Adobe Illustrator, covering lines, shapes, curves, text, gradient patterns, and graphic design techniques. For those interested in three-dimensional graphics and animation, the 3D Modeling course uses Autodesk Maya and focuses on modeling, rigging, texture mapping, sculpting, lighting, rendering, and animation. The Imaging series comprises two levels, with Imaging 1 providing a foundational understanding of Adobe Photoshop basics and Imaging 2, which explores Advanced Photoshop techniques in more depth. Video Production explores the use of everyday cameras and high-end editing software to produce compelling videos, while the Advanced Video Production course elevates students' skills in directing, filming, and editing short movies. This advanced course goes beyond the basics, incorporating essential elements such as lighting, sound, and cinematography, and encourages practical application through both classroom and external projects. All technology courses fulfill the applied art graduation requirement. Once the applied art requirement is fulfilled, they fulfill the STEM elective and then general elective requirements. **All courses are one semester.**

Grades 9, 10, 11, and 12

Digital Photography    

Imaging    

Advanced Imaging    

2-D Illustration  

3-D Modeling & Rendering  

Web Design  

Video Production  

Advanced Video Production  

 = Applied Art Credit  = Fine Art Credit  = STEM Elective Credit  = Humanities Elective Credit

Digital Photography

Dgtl Photo (3151)

One Semester - 1 credit in Applied Art, Fine Art, STEM, or Humanities

Grades: 9 - 12

Prerequisites: None

This interdisciplinary course builds the foundation for visual literacy regarding both the form and content of photographic images. The elements and principles of design as they relate to photographic composition are emphasized. Students also learn to examine images critically through class critiques. Digital processing and enhancing techniques using technology are introduced using Adobe Lightroom. Those with Photoshop experience will be challenged to push their skills to the next level. The student will explore the possibilities of studio lighting in our professional-level equipped photo studio. Students develop a portfolio of various digital assignments, studies, photographic essays, and independent research.

Imaging

Imaging (1631)

One Semester - 1 credit in Applied Art, Fine Art, STEM, or Humanities

Grades: 9-12

Prerequisite: None

This course introduces Adobe Photoshop, an industry-standard application where you can design, edit, combine, and retouch images, shapes, and text. Students will learn how to use Photoshop's powerful tools to create digital artwork for print and digital media. Emphasis will be on design, shapes, colors, typography, effects, and preparing artwork to export. Simple assignments and complex projects will focus not only on the tools and techniques but also on creativity and effective visual communication based on graphic design principles. By the end of the course, students will have a custom portfolio of their work. This course is an excellent foundation for digital photography and a must for those interested in graphic design careers.

Advanced Imaging

Imaging 2 (1641)

One Semester -1 credit in Applied Art, Fine Art, STEM, or Humanities

Grades: 9-12

Prerequisite: Imaging

Students will elevate their Photoshop skills in this advanced course designed for seasoned users ready to dive deeper into the software's capabilities. Explore sophisticated techniques in advanced compositing, precision selection, and expert-level retouching while mastering creative workflows that enhance larger projects. Students will learn to seamlessly blend images, apply professional-grade edits, and integrate typography and graphics into their designs. With a focus on efficiency, discover how to utilize actions and batch processing to streamline the creative process. This course combines hands-on projects and personalized feedback, empowering students to push their creativity and produce a stunning portfolio.

2-D Illustration

2-D Illustration (5151)

One Semester – 1 credit in Applied Art or STEM

Grades: 9-12

Prerequisite: None

This course is an introduction to Adobe Illustrator, an industry-standard application for creating vector graphics and drawing. Students will learn to use Illustrator's powerful drawing tools to create digital art for print and digital media. Emphasis will be on design, shapes, colors, typography, effects, and preparing artwork for prepress and web. Simple assignments and complex projects will focus not only on the tools and techniques but also on creativity and effective visual communication based on graphic design principles. By the end of the course, students will have a custom portfolio of their work.

3D Modeling and Rendering

3D Modeling and Rendering (1621)

One Semester – 1 credit in Applied Art or STEM

Grades: 9-12

Prerequisite: None

This course introduces students to Autodesk Maya, an industry-standard application where you can create assets for interactive 3D applications, animated films, TV series, and visual effects. Students will learn to use Maya's powerful tools to create 3D content. Emphasis will be placed on modeling, object creation, rigging, lighting, texture, sculpting, animation, rendering, and simulation tools. Simple assignments and complex projects will focus not only on the tools and techniques but also on creativity and effective use of the software. By the end of the course, students will have a custom portfolio of their work.

Web Design

Web Design (1661)

One Semester – 1 credit in Applied Art or STEM

Grades: 9-12

Prerequisite: None

Learning to design websites is a beneficial skill for any career path. Web Design is a project-based course that teaches students how to build web pages. Students will learn HTML and CSS and create their own homepages to serve as portfolios of their creations. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix website errors, and create multi-page websites. Students will learn the foundations of web page design, learn how to read and write code, problem-solve, and work to create professional, mobile and responsive websites.

Video Production

Video A (1701)

One Semester – 1 credit in Applied Art or STEM

Grades: 9-12

Prerequisite: None

Students will learn to use professional-level cameras, and everyday equipment such as their phones, while incorporating the use of high-end video editing software, to create engaging and effective videos. The class emphasizes the process of organizing and creating a video and focuses on filming and editing content that the students are passionate about. Students will come away learning how to create videos from conception, and execute them to the finished product.

Advanced Video Production

Adv Video 1B and Adv Video 2B (1711 and 1721)

One or Two Semesters – 1 or 2 credits in Applied Art or STEM

Grades: 9-12

Prerequisite: Video Production or Instructor's Approval

Advanced Video Production is a course designed to further students' video production. Students will learn about the core elements of filming such as lighting, sound, and cinematography. These skills will be used in directing, filming, and editing short movies and will require students to work both inside and outside the classroom on projects.



Wellness

Wellness is the name for the Health and Physical Education department. Comprehensive health and physical education are complementary disciplines sharing a similar, yet distinctive body of knowledge. Our curriculum is built around standards that provide a consolidated approach to instruction with wellness as a common theme. We endeavor to teach students to take responsibility for their actions, stay physically fit, and prepare for a healthy and active lifestyle.

Wellness has been defined as an approach to personal health that emphasizes individual responsibility for well-being through the practice of health-promoting lifestyle behavior (Edlin, Golanty, & Brown, 1999). Wellness is multidimensional, involving the whole person's relation to the total environment. The dynamic ongoing process of wellness requires daily decision-making in the areas of nutrition, stress management, physical fitness, preventive health care, emotional health, and other aspects. To develop a high level of wellness, the five required courses are designed to help the student integrate all six of the dimensions so they can function together. These six dimensions are:

Emotional Wellness, which requires understanding emotions and coping with problems that arise in everyday life.

Intellectual Wellness, which involves having a mind open to new ideas and concepts. Intellectual wellness also entails seeking new experiences and challenges.

Spiritual Wellness, which includes a person's own morals, values, and ethics. The spiritual component provides meaning and direction in life and enables each person to grow and learn to meet new challenges.

Social Wellness, which is the ability to interact successfully with people and within the environment in which each person is a part. Social wellness also includes the ability to develop and maintain intimacy with specific others, and respect and tolerance for those with different opinions and beliefs.

Physical Wellness, which connotes a healthy body maintained by eating right, exercising regularly, avoiding harmful habits, making informed and responsible decisions about health, seeking medical care when needed, and participating in activities that help prevent illness.

Occupational Wellness, which includes being able to enjoy what you are doing to earn a living and contribute to society.

Grade 9	Grade 10	Grade 11	Grade 12
Wellness I Adaptive PE	Wellness II Sports Form Body Dynamics: Advanced Fitness Dynamics of Sport Unified Wellness	Wellness III Sports Form Body Dynamics: Advanced Fitness Dynamics of Sport Unified Wellness	Wellness 12 Sports Form Body Dynamics: Advanced Fitness Dynamics of Sport Unified Wellness

Wellness I (5005)

Introduction to Wellness and Personal Fitness

Grade 9 – 2 credits

Full-year course

The first semester of this full-year course for freshmen has an emphasis on wellness and personal fitness concepts. Wellness components of physical, emotional, intellectual, social, spiritual, and occupational needs are addressed throughout the year as a state of total well-being. Through personal assessment, students are encouraged to develop an individual optimum level of physical fitness, knowledge of fitness concepts, and an understanding of the significance of lifestyle on one's own wellness. Activities are designed to personalize and motivate students to take a closer look at their lifestyles. Technology is utilized with heart rate monitors, computer software analysis, and various fitness testing applications.

The second semester of the freshman year emphasizes wellness and lifestyle choices through nutrition, program design, and exercise adherence. We can develop justifiable health practices by helping students fully understand and apply the facts related to health practices through the development of health skills. Students will develop skills to assess health risks and the ability to perceive themselves at risk. The skills for setting and achieving goals, nutritional analysis and reflection, fitness program design, and infectious diseases are topics that are researched and applied throughout the course.

*Parents may opt their student out of select lessons or units per Board of Education curricular exemption policy.

Wellness II (5011)

Healthy Choices

(Fall or Spring – Grade 10 – 1 credit) Required

The sophomore health course is based upon the premise that students need to enhance their individual knowledge and skills to make better personal wellness decisions. Students will actively participate in an in-depth study of current health-related research and focus on the practical skills necessary to improve their decisions in areas that the CDC (Center for Disease Control) has identified as risk-taking adolescent behaviors. Student assessment of their acquisition of this knowledge and these skills will be based upon the national health standards for essential skills using cooperative groups, presentations, role-playing, research, and written evaluations.

Students will leave this class with the ability to organize and to convey information, opinions, and feelings which are the essential skills needed to strengthen interaction and to reduce or avoid conflict.

*Parents may opt their student out of select lessons or units per Board of Education curricular exemption policy.

Wellness III (5021)

Self-Management and Relationships/ Lifetimes Fitness and Social Dance

(Fall or Spring – Grade 11 or Grade 12 – 1 credit) Required

This one-semester course is a combination of health and physical education. The physical education unit is made up of outdoor pursuits, cooperative games, and social dance. Outdoor pursuits can strengthen a student's wellness by providing new and exciting activities, which promote all of the wellness domains, especially regular physical activity and physical fitness. Students will choose from activities that they can continue throughout their lives, with or without a team, and maintain an optimal level of fitness. They will be challenged in non-competitive activities and situations. Through activities, students will develop skills and strategies for accomplishing goals at a personal, as well as a group level. The activities that may be covered are: inline skating, tennis, indoor and outdoor adventure activities. The department recognizes the biological and social value of dance and the dimensions of creativity and expression, which characterizes participation in the process of dance. Through dance the students will demonstrate responsible personal and social behaviors that respect self and other physical activity settings. This course will offer a short introduction into the history of each dance and the chronology of social dance. The unit will cover a variety of ballroom, line and swing dances

The health portion is designed to encourage students to continue to examine the relationship between their personal wellness goals and their lifestyle choices. In addition to considering the physical, mental and social impact of their behaviors on their lives, students will be challenged to practice ethical/moral reasoning skills in considering lifestyle issues. The course will address healthy relationships, the decision-making process, and identify risk factors facing today's young adults. Students will be engaged in a variety of skill-building and reflective exercises requiring writing, group discussion, and projects. The units will focus on preparing students for their post-secondary transition.

*Parents may opt their student out of select lessons or units per Board of Education curricular exemption policy.

Wellness 12 (5031)

Advocacy/Post Secondary Transition/Socialization)

(Fall or Spring – Grade 12 – 1 credit) Required

This one-semester course is divided into one marking period of health and one marking period of physical education. The physical education component is a social dance unit. The department recognizes the biological and social value of dance and the dimensions of creativity and expression, which characterizes participation in the process of dance. Through dance the students will demonstrate responsible personal and social behaviors that respect self and other physical activity settings. This course will offer a short introduction into the history of each dance and the chronology of social dance. The unit will cover a variety of ballroom, line and swing dances. Students will transcribe daily journal entries that reflect their feelings, knowledge and comprehension of each particular dance. At the culmination of the course, students will research a dance from an era of their choice and compose a written analysis and verbal presentation.

The senior health course is designed to challenge students to practice research and critical thinking skills necessary for examining wellness issues on both a personal and global level. This course addresses post-secondary transitions, as well as developmental change processes. As students prepare to graduate, it becomes critical that they sharpen the skills of inquiry and reflection required to examine their own lifestyle choices, access valid information needed in making decisions impacting health, and consider the impact of social and legal issues on global wellness. Current issues in health will be investigated through individual and group formats. Students will be expected to demonstrate the ability to research health issues using valid sources of information by completing an Advocacy project that spans the full semester on health/wellness-related topics. Students will participate constructively in class discussions and group activities, use technology effectively and ethically, and reflect on the relationship between their own behaviors and wellness goals.

*Parents may opt their student out of select lessons or units per Board of Education curricular exemption policy.

Adaptive PE (5101, 5102, 5103)

(Fall & Spring & Full Year) – Grades 9 – 2 credits

Students are assigned to the Adaptive Program by the following methods:

1. School Nurse (medical reasons)
2. Guidance (psychologist's request)
3. Special Education Department (PPT)
4. Physical Education Instructor's Recommendation

Sport Dynamics (5051)

(Fall or Spring – Grades 10-12 – 1 credit)

This one-semester course is designed for students interested in exploring the fields of sports medicine, sports psychology, and sports nutrition. The sports medicine component includes prevention, recognition, evaluation, treatment, and rehabilitation of injuries common to athletics with a focus on anatomy. Sport-specific pre-season, in-season, and post-season conditioning will be examined. The sports psychology component explores the affective domain of sport including motivation, cohesiveness, sportsmanship, and psychological sports skills. Sports nutrition involves the examination of the proper athletic diet, the effect of nutrition on performance, as well as the negative effects of drugs on the athlete. An understanding of eating disorders, the causes, warning signs, and treatment is also covered.

Students will have "hands-on" experiences with athletic taping and will observe and write a three-page critique on a high school athletic team covering the areas discussed in this class, as well as orally describing the experience. Research will be needed to make two oral presentations on two articles related to the course content.

Sports Forms – Co-ed (5071)

(Fall or Spring–Grades 10-12 – 1 credit)

This course will develop an understanding of how skill relates to various forms of games. This course will teach a tactical perspective using three major game forms: wall/net games, invasion games, and striking/fielding games. Examples of games that may be used are: volleyball, soccer, basketball, roller hockey, team handball, flag football, softball, ultimate frisbee, and badminton. The tactical approach explores defensive and offensive strategies as they apply first to a modified game and then to the traditional form of the game. Working in groups, students will be asked to present an offensive or defensive strategy for all three game forms.

The instructor will also introduce the games to students with a healthy balance of cooperation and competition. Students will explore the game structure, purpose and basic rules and formations. The instructor will help students understand how they can change a game (number of players, height of net, boundary lines, target size) to achieve a goal. Students will be asked to design a game or modify an existing game to achieve a specific purpose.

Advance Fitness (5081)

(Fall or Spring–Grades 10–12 – 1 credit)

This one-semester elective course is designed for sophomores, juniors, and seniors interested in exploring the area of strength and conditioning for the advancement of overall fitness through evaluation, training modalities, injury prevention, recovery and periodization. Whether one is an athlete or just interested in increasing one's physical condition, enhanced physical performance is available to all. Students will participate in a variety of activities, as well as select activities that will provide physical challenges and increase fitness levels.

Students will have "hands-on" experiences with evaluations, training methodologies, and research success programs. The knowledge acquired will provide each student with the necessary tools for developing and understanding their own personal wellness.

Unified Wellness (5201 & 5202)

(Fall or Spring – Grades 10–12 – 1 credit)

Following the Unified Sports model, students with more significant disabilities will participate in this Wellness class with typical peers who will help to create and facilitate an authentic, inclusive environment (reverse mainstreaming). Students will be individually recruited by the teacher and their guidance counselors for participation within this semester-long class. The class will specifically benefit students who are looking to explore careers in Teaching (especially Special Education), Speech/Language Pathology, Physical Therapy, Occupational Therapy, Human Services, and those who wish to explore a Community Service component within their high school experience.



World Language

The courses in the World Language Department are based on the standards outlined in National and State Standards for Foreign Language Learning in the 21st century. As students complete elementary through advanced courses, they increase their proficiency across the three modes of communication: interpretive, interpersonal, and presentational. Authentic resources including online print and audio along with other teacher-generated resources are integrated into all courses. These provide an enriched view of language that reflects real communication. Most classes are taught primarily in the target language. In levels I-III in French and Spanish, classes are heterogeneous. At level IV in both languages, students have the option of working at the honors level. When enrollment at specific levels is insufficient to form a class, levels are combined to ensure that a complete program is available to as many students as possible.

World Language: All courses are full-year courses except French VI which may be elected for one or two semesters.

Grade 9	Grade 10	Grade 11	Grade 12
Spanish I	Spanish I	Spanish I	Spanish I
Spanish II	Spanish II	Spanish II	Spanish II
Spanish III	Spanish III	Spanish III	Spanish III
French I	Spanish IV	Spanish IV	Spanish IV
French II	Spanish IV Honors	Spanish IV Honors	Spanish IV Honors
French III	French I	Spanish V	Spanish V
Latin I	French II	Spanish V Honors	Spanish V Honors
World Mythology and Etymology	French III	French I	Spanish VI
	French IV	French II	Advanced Placement Spanish Language and Culture
	French IV Honors	French III	French I
	Latin I	French IV	French II
	Latin II	French IV Honors	French III
	World Mythology and Etymology	French V	French IV
		French V Honors	French IV Honors
		Latin I	French V
		Latin II	French V Honors
		Latin III	French VI
		Latin III Honors	Advanced Placement French Language and Culture
		Latin IV	Latin I
		Latin IV Honors	Latin II
		Virtual Language	Latin III
		World Mythology and Etymology	Latin III Honors
			Latin IV
			Latin IV Honors
			Latin V
			Latin V Honors
			Virtual Language
			World Mythology and Etymology

Placement at the Sixth Level of French or Spanish Study:

The Advanced Placement Student Declaration of Commitment states that Joel Barlow High School's Advanced Placement Program is designed to provide college-level course mastery and college-level learning experiences to high-performing and highly disciplined students who have a steadfast commitment to academic rigor. At the sixth level, besides the Advanced Placement options, students may choose French VI, for one or two semesters or Spanish VI, a mandatory full-year course. In order for our French and Spanish students to achieve at this level, the World Language program includes advanced courses in sophomore year. In junior year, students may elect an honors level course in French or Spanish, French V Honors or Spanish V Honors. These courses emphasize the use of language for active communication and help students develop the following:

- the ability to understand spoken French or Spanish in various contexts;
- a level of French or Spanish vocabulary to be able to read newspaper and magazine articles, literary texts, and non-technical writing with minimal dependence on a dictionary;
- the ability to express themselves coherently, resourcefully, and with reasonable fluency and accuracy, both in written and spoken French or Spanish.

World Mythology and Etymology

World Mythology (4711 and 4712) – Full-year – 2 credits – 1 credit per semester – Fall and Spring

Grades 9–12

Prerequisite: None

This course is primarily designed for students who have had no previous World Language instruction. Students will receive instruction in basic Latin and Greek etymology with the goal of enhancing students' understanding of English grammar and vocabulary. The course of study incorporates an overview of Greek and Roman history and culture as it relates to the world today. Major myths and the Greek and Roman gods and goddesses are studied. Additionally, students explore and compare myths from other world cultures, including but not limited to Africa, Asia, Mesopotamia, Pre-Columbian locations, and Scandinavia. Connections to modern day literature, art and film are made throughout. This course meets the World Language graduation requirement and may be taken as the first of a sequence of classes in a World Language.

French

French I

French 1A and French 1B – (4001 and 4002) – Full-year – 2 credits – 1 credit per semester

Grades 9–12

This introductory course introduces students to the elements of basic communication as they explore themes including those associated with La Quête de Soi, La Famille et la Communauté, and La Vie Contemporaine in the Francophone world. Using thematic vocabulary and grammatical structures to address these contexts, students increase their proficiency to novice–mid level in three communicative modes: interpretive, interpersonal, and presentational.

French II

French 2 – (4015) – Full-year – 2 credits – 1 credit per semester

Grades 9–12

Prerequisite: French I (high school or middle school)

This course further develops the three modes of communication: interpretive, interpersonal, and presentational. Students explore culturally authentic contexts including leisure time activities, celebrations, vacations, and the world of work in Francophone countries. Teacher-created units help students to acquire thematic vocabulary and grammatical structures in order to complete integrated performance assessments. This course allows students to strengthen their skills at the novice–mid level and often peak into novice–high.

French III

French 3 – (4035) – Full year – 2 credits – 1 credit per semester

Grades 9–12

Prerequisite: French II (high school or middle school)

A month-long review of previously learned French grammar and vocabulary entitled Profil Personnel, and the study of additional structures and contextualized vocabulary enable students to develop and practice their skills within the interpretive, interpersonal, and presentational modes of communication. IPAs (Integrated Performance Assessments) created by the French III team of teachers are based on themes including contemporary life, family and community, and science and technology. Thematic authentic readings, podcasts, and videos from the Internet are important resources used to help students move from high novice to low intermediate levels of proficiency as defined by the American Council of the Teaching of Foreign Languages. (ACTFL). French is used regularly in the classroom.

French IV

French 4A and French 4B - (4041-4042) - Full-year - 2 credits - 1 credit per semester

Grades 10-12

Prerequisite: French III

Students further refine understanding and language application as they study diverse topics from the Francophone world. They continue to develop skills within the interpretive, interpersonal and presentational modes of communication through IPAs (Integrated Performance Assessments) created by the French IV team of teachers. The study of grammatical structures including further exploration of the past tense, hypothetical clauses, and the subjunctive is embedded in thematic units including travel and activities, school and teaching, and the environment in the Francophone world. French is used regularly in the classroom.

Honors French IV

H French 4A and H French 4B - (4141-4142) - Full-year - 2 credits - 1 credit per semester

Grades 10-12

Prerequisite: French III

The focus of Honors French IV is to provide students with pre-AP practice in preparation for the AP French Language and Culture course and its corresponding themes. Students cultivate their understanding of French language and culture through exploring concepts related to family and community, personal and public identity, beauty and aesthetics, science and technology, contemporary life and global challenges. Like in French IV, students further refine understanding and language application as they study diverse topics from the Francophone world. They continue to develop skills within the interpretive, interpersonal, and presentational modes of communication through IPAs (Integrated Performance Assessments) created by the French IV team of teachers. However, the study of more complex grammatical structures like the simple and compound past tenses, hypothetical clauses including the conditional and past conditional, and the subjunctive with its many applications is embedded in thematic units including travel and activities, school and teaching, and the environment in the Francophone world. Students are expected to work more independently. Honors French IV is recommended as the prerequisite for French V Honors and for those students who plan to advance to AP French Language and Culture. French is used almost exclusively in the classroom.

French V and French V Honors

French 5A and French 5B – (4051 and 4952)

H French 5A and H French 5B – (4151 and 4152)

Full-year course– 2 credits – 1 credit per semester

Grades 11–12

Prerequisite: French IV

The French V and French V Honors course is a two-semester course designed for the junior or senior year student who has completed five years of language experience at the middle and high school levels. The French V Honors course is the prerequisite for the French Language and Culture AP course. It builds upon the acquired knowledge and proficiency levels previously developed and it continues to hone students' skills in the interpretive, interpersonal, and presentational modes of communication. Tasks that mirror those on the AP exam are introduced with each unit of study. These include timed interpersonal and presentational speaking tasks and strategies and practice for writing emails and persuasive essays. Among the thematic topics are a study of Québec through a discussion of articles, short film clips, and the reading of *Le Chandail* by Roch Carrier. Other units are based on contemporary short stories such as *Le Petit Nicolas* and films like *Mon Meilleur Ami*. This course may be taken at the honors or regular level.

French VI

French 6A and/or French 6B – (4061 and/or 4062)

Semester or Full-year – 1 or 2 credits – 1 credit per semester

Grade 12 – 1 credit per semester), 4061 and/or 4062

Prerequisite: French V or French V Honors

The French VI course is designed for those students who have completed either French V or French V Honors. It is divided into two distinct semesters and students may elect to take one or both semesters. Vocabulary, idiomatic expressions, and grammar are reviewed and reinforced as necessary as students study various issues from the Francophone world. Topics of study including the evolution of the family, education, immigration, and gastronomy in the Francophone world are embedded in each unit of study. Students are encouraged to become autonomous and reflective learners as they explore areas of personal interest in the Francophone world and set personal goals for their learning. In years when the AP French Language and Culture course is not offered due to small enrollment, this course may be taken at an honors level.

Advanced Placement French Language and Culture

AP French A and AP French B – (4161 and 4162) – Full-year – 2 credits – 1 credit per semester

Grade 12

Prerequisite: French V Honors

Summer work required.

The AP French Language and Culture course is intended for qualified students in the final stage of their secondary school experience. Taught exclusively in French, it requires students to improve their proficiency across the three modes of communication: interpretive, interpersonal, and presentational. The course integrates authentic resources including online print, audio, and audiovisual resources, as well as traditional print resources including literature, essays, magazines, and newspaper articles. Students also examine a combination of visual/print resources such as charts, tables, and graphs. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level as defined by the ACTFL Proficiency Guidelines. Students use several primary textbooks and other authentic materials and resources that are in accordance with those suggested on the College Board website. They are expected to take the AP French Language and Culture exam in May. They are also required to complete a series of summer work assignments.

The course is structured around six themes. Each theme includes a number of recommended contexts for exploration. Essential questions frame each unit of study. Corresponding cultural elements from the Francophone world are integrated into the study of those units. A review of the mechanics is done within the contextual framework of each unit as needed.

Latin

Latin I

Latin 1 – (4315) – Full-year course – 2 credits – 1 credit per semester

Grades 9-12

Prerequisite: None

The ability of Latin to help develop a student's English vocabulary and language skills has always been recognized. In addition, Latin provides first-hand contact with the life and culture of a people who played a central role in the development of Western Civilization. The first-year course is designed to utilize this wide range of possibilities. The student is introduced in easy steps to the language, with a thorough mastery of its grammar and vocabulary, a prime objective. Naturally, there is an emphasis on English word derivations. Latin's part in the development of other languages is also addressed. The reading selections relate to Roman life and history. They serve as the knowledge base for several student-centered activities.

Latin II

Latin 2 – (4325) – Full-year – 2 credits – 1 credit per semester

Grades 10-12

Prerequisite: Latin I

Full-year course

This course contains a detailed presentation of the basic structures, grammar, and vocabulary of Classical Latin which was begun in Latin I. Reading selections are challenging and have as their principal objective the development of the student's ability to comprehend as he/she reads. Reading selections are supplemented by a wide range of authentic quotations from Latin authors. The text series, *Ecce Romani*, offers a wealth of information on English derivatives, Roman history, and the culture of the ancient world.

Latin III and Honors Latin III

Latin 3A and Latin 3B (4331 and 4332)

H Latin 3A and H Latin 3B (4431 and 4432) – Honors level

Full-year – 2 credits – 1 credit per semester

Grades 11-12

Prerequisite: Latin II

The third year of Latin is a transition from the carefully controlled, systematic introduction of the basic elements of the language to the reading of adaptations and selections of major authors and myths. In addition to readings and grammar in *Ecce Romani*, students are exposed to increasingly authentic literary texts including readings from Aulus Gellius, Ovid, Petronius, Vergil, Lucan, St. Augustine, Pliny, and Catullus. Students explore the historical

background of the final phase of the Roman Republic and the early Empire. Latin Honors III follows the Latin III curriculum, but assessments are evaluated differently

Latin IV & Latin IV Honors

Latin 4A and Latin 4B (4341 and 4342)

H Latin 4A and H Latin 4B (4441 and 4442) – Honors level

Full-year – 2 credits – 1 credit per semester

Grade 12

Prerequisites: Latin III with a recommendation of Latin III teacher

The focus of this course is The Aeneid, one of the central works of Western literature. Strong emphasis is placed upon style and structure. Close attention is paid to metrics, rhetorical devices, and advanced grammar. The influence of Virgil's epic on later literature and art is stressed. Recommended Advanced Placement materials are integrated into the program. Latin IV Honors follows the Latin curriculum, but it moves at a more intense pace. Students translate from the AP Latin literature syllabus, including the poetry of Catullus, parts of Ovid's Metamorphoses, and/or selected works of the Augustan poet Horace. The students continue to enhance their knowledge of literary form and analysis; these skills can be applied to their later study of the humanities. Recommended Advanced Placement materials are integrated into the program.

Spanish

Spanish I

Spanish 1A and Spanish 1B – (4501 and 4502) – Full-year – 2 credits – 1 credit per semester

Grades 9–12

Prerequisite: None

This introductory course introduces students to the elements of basic communication as they explore various themes associated with La Familia y la Comunidad y La Vida Contemporánea in the Spanish-speaking world. Using thematic vocabulary and grammatical structures to address these contexts, students increase their proficiency to novice–mid level in three communicative modes: interpretive, interpersonal, and presentational.

Spanish II

Spanish 2 - (4515) - Full-year - 2 credits - 1 credit per semester)

Grades 9-12

Prerequisite: Spanish I (high school or middle school)

This course further develops the three modes of communication: interpretive, interpersonal, and presentational. Students explore culturally authentic contexts including leisure time activities, celebrations, vacations, and the food in Spanish-speaking countries.

Teacher-created units help students to acquire thematic vocabulary and grammatical structures in order to complete integrated performance assessments. This course allows students to strengthen their skills at the novice-mid level and often peak into novice-high.

Spanish III

Spanish 3 - (4535)- Full-year - 2 credits - 1 credit per semester

Grades 9-12

Prerequisite: Spanish II (high school or middle school)

A month-long review of previously learned Spanish grammar and vocabulary entitled ¿Quién soy yo? , and the study of additional structures and contextualized vocabulary enable students to develop and practice their skills within the interpretive, interpersonal, and presentational modes of communication. IPAs (Integrated Performance Assessments) created by the Spanish III team of teachers are based on themes including contemporary life, family and community, and science and technology. Thematic authentic readings, podcasts and videos from the Internet are important resources used to help students move from high novice to low intermediate levels of proficiency as defined by the American Council of the Teaching of Foreign Languages. (ACTFL). Spanish is used regularly in the classroom.

Spanish IV

Spanish 4A and Spanish 4B - (4541 and 4542) - Full-year course - 2 credits - 1 credit per semester

Grades 10-12

Prerequisite: Spanish III

Students further refine understanding and language application as they study diverse topics from the Spanish-speaking world including but not limited to travel and activities, foods and celebrations, the arts, and social justice in the Spanish-speaking world. They continue to develop skills within the interpretive, interpersonal, and presentational modes of communication by exploring a variety of authentic resources, and then demonstrate their knowledge through performance assessments. The study of grammatical structures includes practice and implementation of the preterit and imperfect tenses, the subjunctive, and the future and conditional which are embedded in thematic units throughout the year. Spanish is used regularly in the classroom. Spanish IV is recommended as the prerequisite for Spanish V.

Honors Spanish IV

H Span 4A and H Span 4B - (4641 and 4642) - Full-year - 2 credits - 1 credit per semester

Grades 10-12

Prerequisite: Spanish III

The focus of Honors Spanish IV is to provide students with pre-AP practice in preparation for Honors Spanish V and the AP Spanish Language and Culture course and their corresponding themes. Students cultivate their understanding of Spanish language and culture through exploring concepts related to family and community, personal and public identity, beauty and aesthetics, science and technology, contemporary life and global challenges.

As with Spanish IV, students further refine understanding and language application as they study diverse topics from the Spanish-speaking world. They continue to develop skills within the interpretive, interpersonal and presentational modes of communication through performance assessments. The study of more complex grammatical structures like the simple and compound past tenses, and the subjunctive, including imperfect subjunctive, with its many applications is embedded in thematic units. Students in an honors level class are expected to work more independently. Honors Spanish IV is recommended as the prerequisite for Spanish V Honors and for those students who plan to advance to AP Spanish Language and Culture. Spanish is used almost exclusively in the classroom.

Spanish V

Spanish 5A and Spanish 5B – (4551 and 4552) – Grades 11-12 – Full-year – 2 credits – 1 credit per semester
Grades 11-12

Prerequisite: Spanish IV

In Spanish V, students will study more complex structures, vocabulary, and grammar as they refine their understanding and language competency. Conversational proficiency is developed through thematic readings, listening and oral activities. Students engage in a variety of performance-based activities in which all four language skills (listening, reading, speaking and writing) are embedded. Additional units emphasize a variety of cultural experiences associated with the Spanish speaking world. The National Standards for Foreign Language are the backbone of this curriculum. The standards, based on the "Five C's" (communication, cultures, connections, comparisons and communities) are reflected in activities and course content. Spanish is used almost exclusively in the classroom.

Spanish V Honors

H Spanish 5A and H Spanish 5B – (4651 and 4652) – Full-year – 2 credits – 1 credit per semester
Grades 11-12

Prerequisite: Spanish IV Honors

Spanish V Honors is a two-semester course designed for the junior or senior year student who has completed five years of language experience at the middle and high school levels. As the prerequisite for the AP program, this course builds upon the acquired knowledge and proficiency levels developed in previous years as it continues to hone students' skills in the interpretive, interpersonal, and presentational modes of communication. At this level, tasks that mirror those on the AP Spanish Language and Culture exam are introduced with each unit of study. These include timed interpersonal and presentation speaking tasks, and strategies and practice for writing emails and persuasive essays. Spanish is used almost exclusively in the classroom.

Spanish VI

Spanish 6A and Spanish 6B – (4561 and 4562) – Full-year – 2 credits – 1 credit per semester

Grade 12

Prerequisite: Spanish V

Spanish VI is a course whose goal is to feed the flame of the lifelong learner with a bent toward increasing curiosity about and appreciation for the world outside the borders of one's own individual home and cultural experience. Students will explore a vision of their "future-selves" and the role that the Spanish language will play in it. The course will focus on Spanish use beyond the high school classroom, as well as providing an opportunity for students to attain the Seal of Biliteracy. Additionally, students will hone their listening skills and be exposed to a variety of different Spanish-speaking accents from around the world. Students will listen and read about a variety of topics related to travel and culture across the Spanish-speaking world. Students are encouraged to remain in the target language and to negotiate meaning by asking questions respectfully. Students will also explore their own experiences and perceptions throughout the course and how those might impact their view of the world. In years where there is an approved trip abroad, students will explore language and culture related to the destination country. They will focus on the fundamentals of navigating daily life abroad while exploring cultural sites and activities in their free time.

Advanced Placement Spanish Language and Culture

AP Span A and AP Span B – (4661 and 4662) – Full year – 2 credits – 1 credit per semester

Grade 12

Prerequisite: Spanish V Honors Summer Work Required

The AP Spanish Language and Culture course is a rigorous course taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication: Interpretive, Interpersonal and Presentational. The course focuses on the integration of authentic resources including online print, audio, and audiovisual resources, as well as traditional print resources that include literature, essays, magazine and newspaper articles, and a combination of visual/print resources such as charts, tables, and graphs, all with the goal of providing a diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level, as defined by the ACTFL Proficiency Guidelines. Students use several primary textbooks and other authentic materials and resources that are in accordance with those suggested on the College Board website. Students are expected to take the AP Spanish Language and Culture exam in May. They are also required to complete a series of summer work assignments, due on specified dates throughout the summer.

The course is structured around six themes. Each theme includes a number of recommended contexts for exploration. Essential questions frame each unit. Corresponding cultural elements are integrated into the study of the units, and activities are directed with those cultural connections in mind. It is assumed that students have previously been exposed to advanced language structures in the courses leading up to the AP Spanish Language and Culture course; however, a review of the mechanics is done within the contextual framework of each unit as needed.

Virtual World Language Study

Virt Lang 1A and Virt Lang 1B – (4811–4812) – Full-year – 2 credits – 1 credit per semester

Grades 11–12

Prerequisite: None

The Virtual World Language course is an independent experience in an online, teacher-facilitated learning environment. Qualified juniors and seniors may elect to study a language that is not offered in Joel Barlow’s regular curriculum and is available through Rosetta Stone which will be the primary online software. Additional resources such as the Mango Language Learning platform and language specific, individually researched online resources (YouTube channels, online newspapers, etc.) will allow students to build a personalized program of study as they monitor and sustain their efforts in Rosetta Stone. Bi-weekly reflective journaling and cultural research supplements online learning and culminates with a summative, end of quarter presentation, showcasing language acquisition progress and cultural understanding. Students who choose this course must demonstrate an ability to work independently.

Enrichment Opportunities

Passages: A Capstone Experience

Grade 12

Senior Passage (9962)

Full-year

Passages: A Capstone Experience invites students, in consultation with their project advisor, to develop a product that demonstrates a valued area of educational and personal growth. Students will be encouraged to draw upon resources both in the school and in the community. The goals of the course are: to serve as a culminating activity of the secondary school experience, to provide an opportunity for students to explore an area of sustained interest that incorporates a variety of disciplines; to provide students with an opportunity to practice independent study skills; to encourage new modes of collaborative learning; and to connect learning, life, and work as they begin the transition to their post-high school plans. They may select from a list of options including but not limited to teaching assistance, internships, field study, independent study, community service, and college courses.

The emphasis of the course is on the process by which great projects are brought to fruition. The course concludes with the students presenting the results of their labors in a public forum.

Beyond Barlow's Borders

In addition to the rich selection of courses offered at Joel Barlow in virtually every subject area, many opportunities exist for full or part-time study in another setting. Students may elect to participate in full-length off-campus programs, with administrative approval, and still graduate with a Joel Barlow diploma so long as all graduation requirements are met. Alternatively, they may attend Joel Barlow for part of the day and then pursue an area of interest, either for academic credit or personal enrichment, by prior arrangement through the counseling center. Students may earn up to one credit per semester through an accredited high school or college program without administrative review. They should, however, consult a school counselor to assure that the desired course fills a niche in their four-year graduation plan. Some examples of learning opportunities beyond Barlow's borders are listed below. Interested students should seek additional information from the counseling department.

Independent Study

Students in grades 11 and 12 may elect to study independently in any area of the curriculum with the approval of a sponsoring teacher and the Independent Study Committee. This program can provide an opportunity for students who have demonstrated qualities of initiative, maturity, and responsibility to pursue a particular project outside the curriculum by themselves and in their own way.

Students should discuss a prospective project with the sponsoring teacher and obtain a project proposal form from a Director of Independent Study or online. After the completed form has been submitted, the Committee will meet to grant final approval. Students will then be free to use all the available resources of the school and meet with the sponsor on a regular basis, without being part of a specific class.

Should a student be unable to handle the responsibilities of an independent study, the program may be discontinued, subject to the same timelines for withdrawal as for any other course.

Distance or Interactive Learning

Opportunities include correspondence courses, interactive courses using the Internet, and courses for college and/or high school credit offered at other institutions. Students who are seeking additional credits or a chance to study beyond the Barlow curriculum should see a counselor to coordinate courses with graduation requirements.

Students who wish to receive credit for off-campus learning outside of an accredited high school or college program must receive prior approval through the independent study program.

Special Interest and Career Opportunities

Opportunities for full or part-time study in specific areas of interest are available to students. Some of these include study at state vocational/technical schools; agriculture programs at nearby high schools; and programs at regional educational centers such as the Regional Center of the Arts in Trumbull and Educational Center for the Arts in New Haven. Student schedules can often be arranged to accommodate attendance at these programs during the school day. During the summer, the Wilderness School of Connecticut works in cooperation with the local high school to provide students a twenty-day outdoor experience that promotes personal growth and self-esteem. Some programs require families to pay an additional tuition fee and/or assume responsibility for transportation. Further information can be obtained through the counseling center.

High School Partnership for Early College

(Dual Enrollment)*

Joel Barlow High School is pleased to offer an opportunity that will allow any junior or senior with a 3.0 GPA or better to attend classes at Norwalk Community College (for Redding students) or Housatonic Community College (for Easton students). The student will earn dual credit for this course work: 1) transferable college credit, and 2) elective course credit for high school. There are no tuition costs for enrollment in this program (although the student is responsible for books, fees and supplies). Joel Barlow High School is currently looking to expand these opportunities, so please contact the counseling department for more information. This opportunity is meant to expand the students' academic opportunities, but college classes may not be used to fulfill graduation requirements. Administration approval may be required.

*The Connecticut Board of Regents is working with the CT State Colleges & Universities through the Early College Task Force Committee to develop statewide connections between Connecticut's community colleges and high schools.

Transition 11: Experiential Learning

(Spring - Grades 10-11 - 1 Credit)

Experiential Learning is a spring semester course for juniors who may need an alternate approach to exploring intrinsic motivators and effective communication techniques through learning by doing. Adventure programming (games, initiatives, low and high ropes course challenges experience) reinforce the theme of: "There are no limites except for the ones I set on myself." Classroom instruction includes pro-social skill development tat challenge students into exploring strengths and working on weaknesses within their interpersonal competencies. A self-guided project in an area of interest stresses organization, use of technology, research, and effective writing so that students can put together a final product they are proud of and can present with confidence. Team building through select community service time allow for further understanding of one's place in society. A "Joel Barlow" group project dealing with an issue within the high school will be researched and explored so that students may become positive advocates for their environment.

Transition 12

(Fall - Grade 12 - 1 credit)

Transition 12 is a fall semester course for seniors who are in need of comprehensive career guidance. Employability skills and attitudes along with necessary post-secondary academic habits for those interested in continuing school are stressed. Research and exposure to

careers allow students to create individual plans that they will have confidence in after high school. A portfolio is developed that includes such things as a resume, sample applications, mock interview lessons, and job shadowing. Guest lectures provide a primary source that students can connect with "real world" information so they can better decide what it is they truly want to do after they graduate.

Counseling

School counselors work with students in a classroom setting as well as in small groups and individually, to implement the comprehensive school counseling curriculum. Counselors teach seminars on college and career planning and collaborate with classroom teachers in areas of goal-setting and portfolio development.

In addition to assuming responsibility for individual planning and the delivery of the comprehensive curriculum, counselors work with other student support personnel to address academic, social or emotional issues that may impede student progress. They are also members of the Child Study/Student Intervention Team/MTSS. In that capacity, they meet with the team to develop action plans and often co-facilitate counseling or focus groups. They follow the same guidelines regarding confidentiality as do all the members of the team.

Members of the counseling department welcome communications from parents on any issue regarding their child's progress. Parents with questions or information to share are invited to contact the student's counselor at any time. Conferences with teachers or administrators may be arranged directly or through a counselor.

Student Intervention Team/MTSS

The Multi-Tiered System of Supports (MTSS) team meets as the early intervention team for all referrals from teachers, parents and students and designs structured interventions and time-limited action plans for each student. Students are referred using observable or measurable data, such as attendance, grades, discipline, and other behaviors that interfere with school performance.

Joel Barlow is committed to providing programs and services designed to meet the needs of all students. For students suspected of needing special education services, a Planning and Placement Team (PPT) composed of students, parents and staff work together to design appropriate learning opportunities. The team reviews all referrals, designs plans of action, reviews effectiveness of the plans, and plans/reviews program options for students, and makes referral to a PPT as appropriate. Participation in the general education environment is always considered prior to placement in special education courses.

Health Service

The nurse is responsible for the maintenance of up-to-date health records, including immunizations and state mandated health assessments. She is on duty throughout the school day to provide professional expertise in the event of sudden illness or emergencies. Attendance at PPT and 504 meetings is part of the nurse's responsibility when the exceptionality may concern a health impairment. She is also responsible for providing instructions to the staff regarding issues that impact students' health, and its effects on instruction and performance. Likewise, the nurse consults with the doctor and/or parents relating to a student's health problem. If you have any questions or concerns, please feel free to call the school nurse.

Psychological Service

The psychologists serve as diagnosticians, counselors to parents and students, and mental health consultants to the special education team and the whole school staff. Diagnostic evaluations are conducted for students who are suspected to be eligible for special education services as recommended through the Planning and Placement Team (PPT) process. They may include tests of cognitive abilities, executive functioning, attention issues, specialized tests for learning disabilities, social/emotional, rating scales, and functional behavior assessments. The results of these evaluations are shared with the student and his/her parents and are used to determine eligibility for special education and/or Section 504 services. In addition, reevaluations are performed every three years on all pupils receiving special education services. The psychologists are also members of the PPT, participate in the design of the individualized programs for students, and in their follow-up and review.

In addition, the psychologists provide group and individual counseling services for all students and are available for parent counseling and consultation. The psychologists function as consultants to the faculty and administration and are members of the Student Intervention/MTSS and Crisis Team. As liaisons, the psychologists have contact with outside therapists, physicians, and agencies who work with our students.

Social Work Service

The social worker provides a variety of services for students whose social and/or emotional problems may be interfering with their progress. Individual and group counseling and brief family consultation are used to alleviate some of the problems impeding student progress. The social worker also acts as a referral source to outside community services, and as a link between the home and the school. In addition, the social worker acts as a consultant to teachers, administrators and the PPT to aid in their understanding of student needs.

NCAA Initial Eligibility Requirements

Students interested in college-level athletics need to meet academic requirements. To be a qualifier for a Division I program, you must:

1. Graduate from high school.
2. Present minimum combined test scores as indicated below:
3. Present a minimum grade-point average in at least 13 core courses:
 - a. English
 - b. Mathematics (one year of Algebra and one year of Geometry, or one year of higher-level mathematics for which Geometry is a prerequisite)
 - c. Natural or Physical Science (includes at least one laboratory course)
 - d. Additional courses in English, Mathematics or Natural or Physical Science
 - e. Social Science
 - f. Additional academic courses (in any of the above areas or Foreign Language or Computer Science)

To be a qualifier for a Division II program, you must:

1. Graduate from High school.
2. Present a minimum grade-point average of 2.000 in at least 13 core courses in the same areas noted in Division I requirements.
3. Present a minimum of 820 combined score on the SAT verbal and math sections or a minimum sum of scores on the ACT of 68.

NCAA Initial-Eligibility Clearinghouse

Students who want to participate in Division I or Division II sports must be certified by the NCAA Initial-Eligibility Clearinghouse. This certification process should be done by the end of your junior year. The clearinghouse will analyze your academic information to determine if you meet NCAA's initial-eligibility requirement. Students should see their guidance counselor for applications.

To be a qualifier for a Division III program, you must:

1. Graduate from high school.
2. Meet the regular published entrance requirements for the institution.

These are minimum NCAA requirements. Most institutions have more stringent requirements for acceptance. **BE SURE TO ASK YOUR COACH and SCHOOL COUNSELOR ABOUT THESE REQUIREMENTS OR CONTACT THE NCAA NATIONAL OFFICE AT (913) 339-1906**

Special Education

The Special Education Department offers courses for eligible students to fulfill both their credit and distribution requirements, as well as assist them in meeting the mandated graduation proficiencies. Programs are individually designed and approved through the PPT process. A continuum of services is offered to support students academically, emotionally, and socially. Special education service delivery models include: co-teaching, supported instruction, resource classes, as well as transition support services. Student placement is made through the Planning and Placement Team Meeting.

Integrated Support

This program is designed to help students become more independent learners in their general education courses. Students receive direct support in study strategies and organization skills. Students develop personal transition plans and work to improve advocacy skills. IEP goals and objectives are addressed through direct work in the program and carry over/implementation in the general classroom. Indirect services are provided through consultation between special and general education staff. Students meet each quarter with the Transition Coordinator to continue the transition planning process.

Integrated Support 9 is a full-year course designed for 9th-grade students identified through the PPT process. In a small, supportive environment, students are taught effective approaches to academic work at the high school level. Students receive direct instruction in study strategies, time management, organization skills, and self-advocacy.

Integrated Support 10 is a two-semester course for 10th-grade students. Direct instruction in study and organization skills continue as they relate to each student's IEP goals and objectives. An emphasis is placed on increasing advocacy skills, independence, and self-awareness as a learner in order to help the student achieve success. Students will work on transition activities with an emphasis on post-secondary exploration and planning.

Integrated Support 11 is offered each semester for students in grade 11. The focus is on mastery of IEP goals and objectives that will provide the student with skills needed for postsecondary and employment success. As student success and independence increase, time spent in direct support may decrease, as recommended through PPT. An emphasis is placed on the student's learning to access support through the general curriculum and refinement of their transition plans.

Integrated Support 12 is offered each semester for students in grade 12. The focus is on mastery of IEP goals and objectives that will provide the student with skills needed for post-secondary and employment success. As student success and independence increase, time spent in direct support may decrease, as recommended through the PPT.

English

(Grades 11-12 - 1 credit per semester)

Full-year course

The English program is designed to increase communication and thinking skills. Contemporary and classic fiction, essays, and poems are read, both as individual and group assignments. Daily and long-term assignments improve both the student's skill and attitude toward reading and writing. The writing requirements of this course are extensive. Structured journal writing, as well as read-and-response writing activities, are assigned daily. Individually and in small groups, students are taught to organize, develop, write and edit creative pieces, analytical essays, and personal essays. Students are required to do some independent research. Students develop portfolios of their writing and learning to demonstrate both skill and growth. Students develop their ability to contribute to class discussions.

Mathematics Skills

(Grades 9-12 - 1 credit per semester)

Full-year course

The Mathematics Skills course is designed for students eligible for special education support who require direct instruction to continue development of computation and applications skills: basic computation, with and without a calculator; work with fractions, decimals, and percents; money and finance skills; time and measurement; geometry concepts; number sense; data analysis; and word/story problem/interpretation/solution. Activities stress continued skill development in the context of meaningful, real-world application that students will be able to apply in both their academic and personal environments.

History

(Grades 9-12 – 1 credit per semester)

Full-year course

The History program is designed to improve student's understanding of where we have come from as a nation and community, and apply that understanding to analyze and solve current problems and issues affecting our nation and world. Essential questions are examined within the context of historical primary documents and current events. Students come to see themselves as members of our global community. Critical reading, research, and writing skills are supported through small group and individual instruction. This curriculum addresses critical concepts and skills found in United States History, Government/Geography and Western Civilizations.

Language Arts

(Grades 9-10 – 1 credit per semester)

Full-year course

The Language Arts Skills course is designed for students eligible for special education support who require direct instruction to continue the development of reading and writing skills. Students receive support in the continued development of their literacy skills, including decoding and word reading skills, use of active reading strategies, comprehension strategies, fluency in both silent and oral reading and vocabulary development. Both shared books and guided readings are used. Readers workshop model is used in Language Arts to encourage students to read books of their own choosing while supporting active reading strategies, as well as increasing a desire to read independently.

Students are taught to organize, develop, write and edit creative pieces, analytical and personal essays. They receive instruction on sentence and paragraph development. Read and respond writing activities are also assigned to the students. Technology is integrated, as appropriate, to support students' reading and writing skills.

Reading Instruction

(Grades 9-12 – 1 credit per semester)

Literary instruction is provided for students eligible for special education services who require direct instruction in word attack/decoding skills, encoding skills, reading fluency, and reading comprehension. Targeted and systematic, instruction is provided to address phonological processing deficits when appropriate. Before, during, and after reading strategies are modeled and taught so students are able to read fiction and non-fiction articles with improved comprehension.

Writing may be utilized as an additional measure to both improve and monitor text understanding. Data is collected regularly to measure student progress and adjust the instructional program as indicated.

Speech-Language Pathology Service: Advanced Communication & Language Skills

The speech and language pathologists design and implement intervention programs for students identified with speech and language disorders and for students whose learning disabilities are related to weaknesses in language-based skills. Evaluation, consultation, individual, group, and classroom-based services are provided by the speech-language pathologists to students deemed eligible by the PPT or 504 process. Students meet with the speech-language pathologist to learn strategies to improve speaking, listening, reading, writing, and critical thinking skills needed for classroom success. Communication skills for successful functioning in social and vocational settings are also addressed. The speech-language pathologists act as consultants to teachers, administrators, parents, the PPT, and SIT (Student Intervention Team/MTSS) to comprehensively address student needs.

Career and Transition Service

The transition coordinator works closely with counselors, faculty, and career center staff to provide individually designed programs and activities that lead to informed decision-making and career choice. The coordinator acts as a facilitator for job shadowing experiences, internships, part-time job search, and career speakers for the classroom. Myers-Briggs personality type assessment, post-secondary planning and career guidance are also available through the transition coordinator.

The transition coordinator is instrumental in the development and implementation of an individualized transition plan for each student with special education eligibility. Work-study opportunities for credit are available, when appropriate, through the special education process.

Joel Barlow High School

Learning Expectations

Complexity	Community	Communication
Students, as creative problem solvers, will sustain active inquiry, apply prior knowledge, and take risks as critical thinkers	Students will live as active and informed citizens, collaborate effectively toward common goals, treat others with respect, and assume responsibility for their own lives.	Students will demonstrate proficiency and fluency in their ability to meet the literacy demands of an interconnected world.
• knowledge • transfer of knowledge • ambiguity and risk-taking • active inquiry • critical thinking and problem solving	• personal responsibility • respect • collaboration • global citizenship	• presentation • interpersonal skills • interpretation • writing

Complexity

Students, as creative problem solvers, will sustain active inquiry, apply prior knowledge, and take risks as critical thinkers.

	Exemplary	Accomplished	Developing	Beginning
Knowledge	• Demonstrates sophisticated understanding of fundamental and higher-order thinking skills and concepts • Accesses, apply, documents, and presents knowledge with fluency showing full understanding of skills and concepts	• Demonstrates adequate understanding of fundamental skills and concepts and some higher-order thinking ones • Accesses, apply, documents, and presents knowledge with minor flaws that do not diminish understanding of skills and concepts	• Demonstrates adequate understanding of either fundamental skills or concepts, with limited ability to work with higher-order thinking skills • Accesses, apply, documents, and presents knowledge with flaws that diminish understanding of skills and concepts	• Demonstrates limited understanding of fundamental skills and concepts, prohibiting understanding of higher-order ones • Lacks fluency in accessing, applying, documenting, and presenting knowledge
Transfer of Knowledge	• Independently builds on prior knowledge, synthesizing and applying new information • Makes frequent, meaningful, and rich cross--discipline and/or real--life connections	• Builds on prior knowledge, synthesizing and applying new information, with minimal support • Makes relevant cross--discipline and real--life connections	• Builds on prior knowledge and ideas with support, resulting in minimal synthesis and application • Attempts some cross--discipline and real--life connections that demonstrate partial understanding	• Rarely builds on prior knowledge and ideas, even with support, prohibiting synthesis and application • Learns primarily without cross--discipline or real--life connections
Ambiguity and Risk-Taking	• Demonstrates persistence and patience with ambiguity in order to create meaning • Consistently demonstrates an eagerness to take appropriate risks	• Engages ambiguity with minimal support, in order to create meaning • Shows willingness to take appropriate risks	• Engages ambiguity with support to attempt meaning • Lacks consistency in willingness to take appropriate risks	• Avoids ambiguity and relies on prior knowledge • Avoids opportunities to take appropriate risks, relying on safe or familiar ideas

Critical Thinking and Problem Solving	• Identifies complex problems • Effectively evaluates quality and validity of information from multiple perspectives • Proposes solutions that are thoroughly supported and demonstrate a sophisticated understanding	• Identifies problems • Evaluate quality and validity of information • Proposes logical solutions that are adequately supported	• Identifies problems with support • Evaluate information with support • Proposes solutions with limited or flawed evidence	• Seldom identifies problems • Has difficulty evaluating information • Has difficulty proposing logical solutions
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Community

Students will live as active and informed citizens, collaborate effectively toward common goals, treat others with respect, and assume responsibility for their own lives.

	Exemplary	Accomplished	Developing	Beginning
Personal Responsibility	- Always prepared and introduces new ideas and engages others in relevant activities - Aligns realistic, measurable goals with an appropriate post-secondary plan - Explains the impact of behavior on others and takes personal responsibility for decisions	- Prepares for class and participates in-class activities - Sets appropriate and realistic goals - Recognizes the impact of behavior on others and through self-reflection is able to modify behavior	- Sometimes prepares for class and participates in-class activities with prompting - Sets broad, basic goals with assistance - Recognizes, with prompting, the impact of behavior on others and is willing to modify behavior	- Rarely or never prepares for class and does not participate in class activities - Does not set appropriate and realistic goals; goals set by others - Unable to explain the impact of behavior on others and does not take personal responsibility for decisions
Respect	- Consistently empathizes with others in a variety of contexts - Consistently listens for understanding, recognizes personal boundaries, and speaks with appropriate language and tone - Acts in accordance with established and appropriate rules of civility	- Consistently empathizes with others in a variety of contexts - Consistently listens for understanding, recognizes personal boundaries, and speaks with appropriate language and tone - Acts in accordance with established and appropriate rules of civility	- Consistently empathizes with others in a variety of contexts - Consistently listens for understanding, recognizes personal boundaries, and speaks with appropriate language and tone - Acts in accordance with established and appropriate rules of civility	- Has difficulty empathizing with others - Rarely listens for understanding, recognizes personal boundaries, and speaks with appropriate language and tone - Rarely recognizes how one's actions impact others

Collaboration	- Proactively works toward group goals - Consistently and actively contributes knowledge, opinions, and skills - Values the knowledge, opinions, and skills of all group members and encourages their contribution	- Contributes to group goals without prompting - Contributes knowledge, opinions, and skills - Values the knowledge, opinions, and skills of all group members	- Works toward group goals with occasional prompting - Contributes knowledge, opinions, and skills with prompting - Sometimes recognizes the knowledge, opinions, and skills of all group members	- Works toward group goals only when prompted - Rarely contributes knowledge, opinions, and skills without prompting - Rarely recognizes the knowledge, opinions, and skills of all group members
Global Citizenship	- Understands the complexity of society and acts to bring about meaningful change - Demonstrates and promotes respect for others - Assumes a committed role in community service	- Appreciates the complexity of society and often acts to bring about meaningful change - Demonstrates respect for others - Regularly participates in community service	- Shows awareness of social change, but rarely acts to bring about change - Usually demonstrates respect for others - Sometimes participates in community service	- Shows a limited understanding of social change - Rarely demonstrates respect for others - Rarely or never participates in community service

Communication

Students will demonstrate proficiency and fluency in their ability to meet the literacy demands of an interconnected world.

	Exemplary	Accomplished	Developing	Beginning
Presentation	- Shows a sophisticated sense of audience - Uses language artfully and articulately - Organizes artfully to enhance meaning - Uses media/materials effectively	- Shows a clear sense of audience - Uses language effectively - Organizes clearly to support meaning - Uses media/materials appropriately	- Shows some sense of audience - Uses language somewhat effectively - Organizes fundamentally with little impact on meaning - Uses media/materials somewhat appropriately	- Shows little sense of audience - Uses language ineffectively - Organizes ineffectively, often blocking meaning - Uses media/materials ineffectively
Interpersonal Skills	- Skillfully chooses appropriate means of communication at all times - Uses sophisticated non-verbal communication - Skillfully promotes discourse	- Consistently chooses appropriate means of communication - Uses appropriate non-verbal communication - Actively promotes discourse	- Inconsistently chooses appropriate means of communication - Uses appropriate non-verbal communication when prompted - Inconsistently engages in discourse	- Rarely chooses appropriate means of communication - Has difficulty with appropriate non-verbal communication - Rarely engages in discourse
Interpretation	- Applies complex listening skills - Applies complex reading and viewing skills - Recognizes sophisticated patterns and complex forms - Creates insightful, discerning, perceptive meaning	- Applies appropriate listening skills - Applies appropriate reading and viewing skills - Recognizes consistent patterns and forms - Creates thoughtful, perceptive meaning	- Applies basic listening skills - Applies basic reading and viewing skills - Recognizes basic patterns and forms - Creates plausible but superficial meaning	- Rarely applies listening skills - Rarely applies reading and viewing skills - Unable to recognize patterns and forms - Creates meaning on a literal level

Writing	• Scores at level 5 or higher on the Barlow Diagnostic Writing Rubric	• Scores at level 4 on the Barlow Diagnostic Writing Rubric	• Scores at level 3 on the Barlow Diagnostic Writing Rubric	• Scores below level 3 on the Barlow Diagnostic Writing Rubric
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