

# **PROGRAM OF STUDY**

**2024-2025**

**IPSWICH HIGH SCHOOL**



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## IPSWICH HIGH SCHOOL GRADUATION REQUIREMENTS

Graduation requirements include the accumulation of at least 110 credits based on course work completed in grades 9 –12; 97.5 credits are in required courses. Students must receive credit and passing grades in the following courses in order to graduate.

Subject Area	Amount Required	Credits Required
English	4 Years	20
Math	4 Years	20
Science Lab Courses*	3 Years	15
Social Studies	4 Years	20
World Language**	2 Years	10
Health and Wellness	1 Course	2.5
Physical Education***	4 Courses	10
Unrestricted Electives		12.5
Total Required Credits		110

\*The three years of required science lab courses must include the successful completion of Biology and Chemistry. The High School Principal shall have the right under extraordinary conditions to waive the chemistry requirement.

\*\*The High School Principal shall have the right under extraordinary conditions to waive the World Language proficiency requirement.

\*\*\*Juniors and Seniors who are involved in an interscholastic sport during their junior or senior year may request a “sports replacement” option. Students receiving approval for sports replacement during one or both of these years will be exempt from the physical education credit requirement for the year(s) the replacement is approved. The High School Principal is authorized to accept documented, regular participation in non-school physical activities for junior and senior students only. These non-school physical activities must be pre-approved by the High School Principal and total a minimum of 62 hours for consideration. Completion of these activities must be verified and signed-off on, by the activity supervisor, prior to acceptance of these hours for a passing grade.

**Course Load Requirements:** Students must take 35 credits each year to assure promotion to the next grade.

## GRADE POINT AVERAGE (G.P.A.)

Ipswich High School has four difficulty levels of courses (Advanced Placement, Honors, College Preparatory L2 and College Preparatory L1). We have four levels for G.P.A. computation. The weighted courses and G.P.A. provide maximum weight for grades received in A.P. courses and lesser weight for grades received in general or remedial level courses. For example, a grade of A+ in an AP course receives a weight of 5.00; in an Honors course, 4.50; in College Preparatory L2, 4.00; and in a College Preparatory L1 course, 3.50.

IHS Course Weighting					
Grade	Percent	AP	Honors	College Prep L2	College Prep L1
A+	97-100	5.0	4.5	4.0	3.5
A	93-96	4.7	4.2	3.7	3.2
A-	90-92	4.5	4.0	3.5	3.0
B+	87-89	4.3	3.8	3.3	2.8
B	83-86	4.0	3.5	3.0	2.5
B-	80-82	3.7	3.2	2.7	2.2
C+	77-79	3.4	2.9	2.4	1.9
C	73-76	3.0	2.5	2.0	1.5
C-	70-72	2.7	2.2	1.7	1.2
D+	67-69	2.4	1.9	1.4	0.9
D	63-66	2.0	1.5	1.0	0.5
D-	60-62	1.7	1.2	0.7	0.2

- We offer courses at four difficulty levels so that all students may succeed in courses at their own level and earn recognition on the Honor Roll.
- Please note that students who enroll in Advanced Placement courses must take the Advanced Placement Exam in that subject in May. Advanced Placement test fees are paid by students.

## COMMUNITY SERVICE

SST30CP2

**COMMUNITY SERVICE**  
**1 Credit**

As a prerequisite for successful citizenship, Ipswich High School expects each student to make a significant contribution to the community. Community Service (giving back) embodies a core value that every good citizen embraces. All students will experience the personal rewards of serving the needs of the community's social fabric by donating their time and skills to advance worthy institutions and endeavors.

Ipswich High School expects every student to complete an approved Community Service Project during their high school experience. These projects will be a minimum of 30 hours in duration. Unless the organization has been pre-approved by the high school, all projects must be approved in advance by the high school principal or his designee. Project completion will be monitored by the Community Service Coordinator for completion. Projects will be graded on a Pass/Fail basis. Any student that has not completed their community service requirement by the end of their junior year will receive a grade of "F" indicating that they have not yet met this requirement. Seniors will have until the end of the first marking period of their senior year to earn a passing grade for their service requirement.

Information regarding service opportunities for students and a list of pre approved organizations can be found on the high school website and at the links below:

[Community Service Requirements Letter](#)  
[List of Volunteer Opportunities](#)

## **CAREER PATHWAYS**

Ipswich High School provides a strong core curriculum designed to prepare students for a variety of post-secondary opportunities including college, technical training, and other career opportunities. While most of our students will elect to take rigorous courses in our core disciplines, other students find their passion in various elective programming. The wide variety of elective offerings provides our students an opportunity to engage in rich learning experiences, many of which have direct relevance to early career exploration or specific college/technical field related coursework. Ipswich High School has been working to identify high interest-based course sequences which we have identified as Career Pathways.

Currently, we offer a machining pathway that culminates in a capstone course that earns students an industry-recognized credential in programming a CNC (computer numeric control) machine. We are also exploring a pathway that will lead to a credential in information technology.

Each pathway will incorporate a capstone experience that requires students to connect and engage in a real world problem-solving that requires students to work collaboratively as they identify, propose, and implement solutions to important questions.

Students prior to the class of 2025 will also be able to pursue distinction in the previously identified pathways of engineering, publishing, legal studies, or visual arts.

## ENGLISH

The IHS English program builds a strong foundation of close reading, literary analysis, and writing skills. Students will develop a balanced portfolio of work including narrative, expository, and argumentative writing and an appreciation for literature and intellectual expression. Pre-course or summer reading is required for AP classes and encouraged for all levels, as are self-assessment portfolios. However, each level offers a different thematic focus and builds upon the skills developed in the prior year.

GRADE	HONORS	COLLEGE PREP	
<b>Grade 9</b>	Honors English 9	English 9 CP2	English 9 CP1
<b>Grade 10</b>	Honors English 10	English 10	
<b>Grade 11</b>	Honors American Literature  OR  Advanced Placement Language and Composition: American Literature*	American Literature	
<b>Grade 12</b>	Honors Contract Literature and Composition AND Senior Elective Offering (Journalism or Creative Writing)  OR  Advanced Placement Literature and Composition*	Literature and Composition AND Senior Elective Offering (Journalism or Creative Writing)	

\*Advanced Placement English requires the approval of the English Department Chairperson.

### SUPPLEMENTARY ELECTIVES - Credit as electives only

- Exploring Other Worlds: Science Fiction & Fantasy
- Film Studies 1
- Film Studies 2
- Screenwriting: Movies, Films & TV
- Introduction to Creative Writing
- Public Speaking
- Yearbook
- All the World's a Stage
- Reading & Writing
- Introduction to Theater Arts

## NINTH GRADE

Freshman English classes focus on the writing process and close reading skills. While developing a foundation in argumentative writing, students read various short stories, Shakespeare's *Romeo and Juliet*, *Lord of the Flies*, *The House on Mango Street*, a choice nonfiction title, and a variety of poems aligned with a particular unit (e.g., Shakespearean sonnets with *Romeo and Juliet*). Class placement is contingent upon their prior achievement, the recommendation of their eighth grade English teacher, and performance on the department placement test.

The primary focus of College Prep L1 English is the development of reading and writing skills. Students work with high-interest fiction and non-fiction in a classroom setting that emphasizes fundamental literacy, coherent writing, and effective study habits.

### **ELA01CP1**

### **ENGLISH 9 College Prep 5 Credits**

Designed for students with average and above average reading and writing skills

This college preparatory course emphasizes the writing process and utilizes literary models, including short stories, plays, essays, poetry, and novels.

### **ELA01CP2**

### **ENGLISH 9 College Prep 5 Credits**

Designed for students with average and above average reading and writing skills

This college preparatory course emphasizes the writing process and utilizes literary models, including short stories, plays, essays, poetry, and novels.

### **ELA01H**

### **ENGLISH 9 HONORS 5 Credits**

Designed for students with high reading speed and comprehension skills and above average writing ability.

This advanced course is aimed at the high achiever who is motivated to take on challenging reading and writing assignments.

## TENTH GRADE

The sophomore English program emphasizes reading and analysis of contemporary short fiction, contemporary and classic novels, Shakespeare's *Macbeth* or *Julius Caesar*, and various



non-fiction selections. Students take courses at appropriate learning levels in accord with prior achievement and the ninth grade teacher's recommendation.

**ELA02CP2**

**ENGLISH 10 College Prep  
5 Credits**

Prerequisite: Students must pass English 9.

This course emphasizes literary analysis, composition, and research.

**ELA02H**

**ENGLISH 10 HONORS  
5 Credits**

Prerequisite: An overall grade of not less than A- in CP2 English 9 or B in Honors English 9 and the recommendation of the ninth grade English teacher.

This course, aimed at serious language arts students with proven aptitude, provides the foundation for entry into junior and senior Honors and Advanced Placement courses. It requires considerable outside reading.

**ELEVENTH GRADE**

**ELA04CP2**

**AMERICAN LITERATURE  
5 Credits**

Prerequisite: Passing grade in English 10.

American Literature is a survey course that offers students an enhanced understanding of our national literature and how it reflects America's cultural heritage and national identity.

**ELA04H  
LITERATURE**

**HONORS AMERICAN  
5 Credits**

Prerequisite: An overall grade of not less than A- in English 10 CP2 or B in Honors English 10 and the recommendation of the tenth grade English teacher.

Honors American Literature is a survey course that offers students an enhanced understanding of our national literature and how it reflects America's cultural heritage and identity. The course is designed for students with very high-level language arts skills, disciplined work habits, and the motivation to take on challenging assignments at a demanding pace.

**ELA16AP  
ENGLISH**

**ADVANCED PLACEMENT  
5 Credits  
LANGUAGE AND**

**COMPOSITION: AMERICAN LITERATURE**

Prerequisite: Enrollment by Department approval for students with a minimum of A- in Honors English 10. Students who are not selected and desire to be considered for A.P. may appeal for consideration. See the English Department Chairperson for details.

This rigorous course in rhetoric, or the art of persuasion, blends the study of American literature with an analysis of non-fiction texts and college-level writing. It is designed to challenge students to become skilled readers and writers who compose for a variety of purposes.

This course is for accomplished and industrious language arts students who seek advanced college placement. Every enrollee is required to take the A.P. examination. Multiple summer readings and accompanying assignments are required. Participation in round-table, seminar-style discussions is vital to success in the class.

## **TWELFTH GRADE**

The senior program is designed to complete our carefully planned progression of English courses. Except for students in Advanced Placement English, seniors are required to take the core course, English 12 Literature and Composition, paired with their choice of a senior elective. The two courses together constitute the Grade 12 English requirement and earn five (5) credits.

The courses are heterogeneously grouped and can be taken at either the college preparatory or honors level. In order to qualify for an honors contract, students must complete American Literature CP2 with an A- or Honors American Literature with a B and have the recommendation of their Grade 11 teacher.

## **CORE COURSE DESCRIPTION**

### **ENGLISH 12 LITERATURE & COMPOSITION CORE COURSE                      5 Credits**

The shared core of the senior courses emphasizes the reading, writing, and independent thinking skills essential for academic success, active citizenship, and personal enjoyment.

Through the analysis of works by distinguished scholars and professional writers, students will refine their reading, writing, and reasoning skills, broaden their world views, and develop their own voices. Students will write compositions for different audiences. Each course emphasizes the use and application of research in student work throughout the semester. The class environment will provide opportunities for active discussion and collaboration.

## **ELECTIVE COURSE DESCRIPTIONS TO PAIR WITH CORE**

**ELA07CP2  
WRITING  
ELA07H**

**ENGLISH 12 CREATIVE  
5 Credits**

In addition to the core course requirements for English 12 Literature and Composition, this course will provide students with the opportunity to read and write fiction, poetry, and nonfiction. Students will read and discuss the work of a wide variety of writers as they use these works to inspire their own writing. They will also put together their own collections (known as a chapbook) and are encouraged to get some of their work published. In addition, the class will produce Ipswich High School's literary magazine *The Chameleon*.

## **ELA08CP2**

## **ENGLISH 12 JOURNALISM**

**5 Credits**

### **ELA08H**

In addition to completing the core course requirements of English 12 Literature and Composition, students further develop and refine their language arts skills of reading, writing, listening, and speaking at a high level in preparation for college and the world of work. While reading numerous nonfiction texts and studying journalism and media, students develop practical skills writing for our school newspaper. The course mandates production and participation on Ipswich High School's online paper: *The Tiger Transcript*.

## **EL05AP**

## **ADVANC**

## **ED PLACEMENT ENGLISH LITERATURE & COMPOSITION**

**5 Credits**

Prerequisite: Enrollment by department approval for students with 15 minimum credits and a minimum of B+ in American Literature Honors, B in AP English Language & Composition, or an aggregate A- in all previous English courses. Students who are not selected and desire to be considered for A.P. may appeal for consideration. See the English Department Chairperson for more details.

AP English Literature and Composition is an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. This course is specifically designed for the gifted and industrious language arts student who seeks advanced college placement. Every enrollee is required to take the A.P. examination. Summer reading and accompanying assignments are required. Participation in round-table, seminar-style discussions is vital to success in the class.

## **SUPPLEMENTARY ENGLISH ELECTIVES**

These electives are enrichment courses outside the core offerings. They carry elective credit only, not English credit. Unless indicated otherwise, these courses are open to all students.

## **ELA63CP2**

## **EXPLORING OTHER**

**WORLDS: SCIENCE FICTION & FANTASY 2.5 Credits**

## **ELA63H**

This course invites students to explore the creative landscapes of speculative fiction. By analyzing classic and contemporary literature, films, and multimedia expressions, students will consider how science fiction and fantasy serve as powerful tools for exploring contemporary issues, challenging societal norms, and providing perspectives on the human condition. The course will also provide opportunities for students to investigate the role of genre-specific storytelling elements such as world building, magic, and the supernatural. As students delve into the speculative technologies that define science fiction, they will examine their real-world inspirations and discuss the ethical dilemmas presented by futuristic concepts and the role of technology in shaping our future. Text selection will vary, but may include works by the following authors: Brandon Sanderson, Robin Hobb, Jim Butcher, Margaret Atwood, Neil Gaiman, J.R.R. Tolkien, Andy Weir, N.K. Jemison, Octavia Butler, Ken Liu, George R.R. Martin, Rebecca Roanhoarse, Ray Bradbury, Ursula K. Le Guinn, and student selected writers. Students will have the opportunity to showcase their understanding through presentations, journaling, class discussion, written responses, and imaginative projects that demonstrate their engagement with the course material.

## **ELA15CP2 ELA15H**

**YEARBOOK 2.5 Credits**

This course will teach students the fundamentals needed to plan and produce our school yearbook. Using the latest desktop publishing and graphic design programs, students will facilitate the design process and assume responsibility for various sections. As a result, Yearbook requires students to exhibit personal responsibility, leadership, and artistic skill. Students will hone skills in the areas of writing, graphic design, photography, and business. Meeting deadlines and teamwork are essential.

## **ELA20 CP2 Credits ELA20H**

**FILM STUDIES 1 2.5**

This course provides students with an introduction to film as an important form of art, communication, and culture. Students will learn to “read” the language of film so that they will better understand and appreciate how movies impact their audiences. The course will offer an in-depth analysis of different kinds of films and the key technical and critical concepts used in understanding them. Students should expect to engage in critical analysis of individual scenes and whole films, as well as read and write about film. Creative independent and group projects will challenge students to interpret, and even create their own films.

Besides being a part of our daily lives, film has become an increasingly significant part of college curriculums. This course will provide a foundation for these college courses, as well as a more general foundation for interpreting film wherever students encounter it.

**ELA64CP2****FILM STUDIES 2 2.5****Credits****ELA64H**

Prerequisite: Film Studies 1

This course builds on Film Studies 1 by introducing additional elements of film and developing a more advanced understanding of concepts learned in Film Studies 1. Topics covered include sound, acting, genre, history of film, film criticism, and documentary film. As in Film Studies 1, students should expect to engage in critical analysis of individual scenes and whole films, as well as read and write about film. Creative independent and group projects will challenge students to interpret, and even create, their own films. Students should bring a serious interest in the advanced study of film and the ability to work both independently and collaboratively.

**ELA21CP2****INTRODUCTION TO****CREATIVE WRITING****2.5 Credits****ELA21H**

Open to grades 9-11

This course provides students the opportunity to explore writing in a variety of genres including poetry, fiction, and nonfiction. Students who already write poetry, short stories, or journal entries and want to continue to refine their craft will benefit from time to revise, share ideas, and conference with their teacher and peers. Students who want to try different kinds of writing, meet like-minded writers, or are up for a new challenge will enjoy the creative freedom to work and build their portfolio of work. All participants will create a chapbook (collection of writer's work) by the end of the class.

**ELA42CP2****ALL THE WORLD'S A****STAGE****2.5 Credits****ELA42H**

Let's go to the theater! Students in this course will utilize a flexible schedule to explore contemporary theater by attending five performances at the Huntington Theater in Boston. The class will meet on five Sundays over the course of the academic year from Noon – 6pm to engage in pre-show activities, view the show, and participate in the post-show Humanities Forum at the theater. Independent work on the shows, R block class discussions, and a reflective portfolio presentation will round out our critical engagement with the plays. We are hopeful that some Ipswich community members will join us for this journey through collaboration with the Ipswich Council on Aging. Parents are also welcome to join the class for the trips to Boston. Students in the class will be asked to cover the cost of their theater tickets which is approximately \$15 per show for a total of \$75 for the course. Financial aid is available.

**ELA32CP2****PUBLIC SPEAKING 2.5****Credits**

## **ELA32H**

This elective course provides students with a supportive environment in which to improve their public speaking skills and their confidence as speakers and presenters. Through activities, models, and practice, students will learn all facets of effective public speaking, including techniques of verbal and non-verbal communication, speech writing, speaking on camera, impromptu speaking, audience awareness, and conquering nerves. Students will practice speaking in a variety of settings and to a variety of audiences. The skills learned in this class will be invaluable to students in their other courses as well as in many opportunities in life. Public speaking is truly a lifelong skill.

## **ELA65CP2 WORLD**

Open to grades 9 and 10 by invitation.

## **READING & WRITING OUR 2.5 Credits**

This course invites students to strengthen their analytical reading and writing skills by critically exploring a diverse range of engaging texts and writing assignments. The purpose of this course is to cultivate stamina, confidence, and essential skills needed for academic success on the MCAS and beyond, as well as to grow students' understanding of how literacy skills aid in the way we read, write, and shape our understanding of the world.

## **TTR01CP2 THEATER ARTS TTR01H**

## **INTRODUCTION TO 2.5 Credits**

This course introduces students to acting techniques and theater appreciation. Over the course of the semester, students will examine elements of playwriting, acting, design, directing, and production. Students will also learn to analyze plays and learn a little bit about the history of theater in hopes of fostering an appreciation of live performances. The course will build to the production of a one act play (performed in class) as an opportunity to demonstrate the skills and concepts learned over the course of the semester.

**NOT OFFERED 2024-2025**

## **ELA11CP2 MOVIES, FILM, AND TV    2.5 Credits ELA11H**

## **SCREENWRITING:**

Do you like to watch movies? Come study them with us! Movies & Film is designed to equip students with the basic theory and structure of screenwriting. Using contemporary movies as models, students generate their own story ideas in a genre of their choice. Screenwriting emphasizes the conventions of the form and genre – character, conflict, plot, dialogue – as well as the technical elements that make scripts and screenwriting unique. Upon completion of this

course, students will have conceived, developed, and crafted their own original idea into a professional screenplay.

**1LA12CP2  
AND SOCIETY  
ELA12H**

**SPORTS IN LITERATURE  
2.5 Credits**

Students in this course will study the history, psychology, and sociology of sports in our culture. Through fiction, non-fiction, biography, and movies, students will explore the ideas of personal triumph, goal setting, teamwork, and other concepts to help them craft a personal philosophy of sports. In an effort to understand why we value sports so deeply, the class will analyze how sports heroes across the ages impact culture. Assessments will include journals, researched reports, news stories, film criticism, peer interviews, and creative writing assignments.

**ELA38CP2  
ELA38H**

**SHAKESPEARE!**

**2.5 Credits**

In this elective, we'll focus exclusively on Shakespeare's plays and poetry. Making use of active learning strategies and an extensive collection of brilliant film productions, we'll explore some of his most popular plays and sonnets. We'll ask ourselves how writing that is hundreds of years old can still ring true to us today. In what ways do his plays cause us to reconsider our relationships, social constructs, beliefs about human nature and sense of self? If you love the Bard and enjoyed his plays in your core English classes, then this is the elective for you. It is open to all students grades 9-12.

**ELA58CP2  
Credits  
ELA58H**

**GENDER STUDIES 2.5**

Prerequisite: Grades 11 and 12 (10th by permission only)

In the Gender Studies course, Ipswich High School students will critically examine the place of men and women in human culture and society. The course would survey a wide array of social, economic, political, and global topics that are included within the boundaries of gender studies. A primary goal of this class would be to provide students with an analytical lens that they can use to understand the social construction of gender and how it intersects with power, oppression, class, age and sexual identity. Maintaining an awareness of racial and ethnic groups, the course would also focus on analyzing how gender impacts privilege and oppression. Opportunities would be provided to consider the effects that these concepts have on American perceptions of body image and beauty. The class could also highlight and follow the development of gender in popular culture to focus on how it has been presented in both the past and present. This course will allow students to critically think about the concepts of how gender and sexuality play out in people's daily lives, institutions, and media.

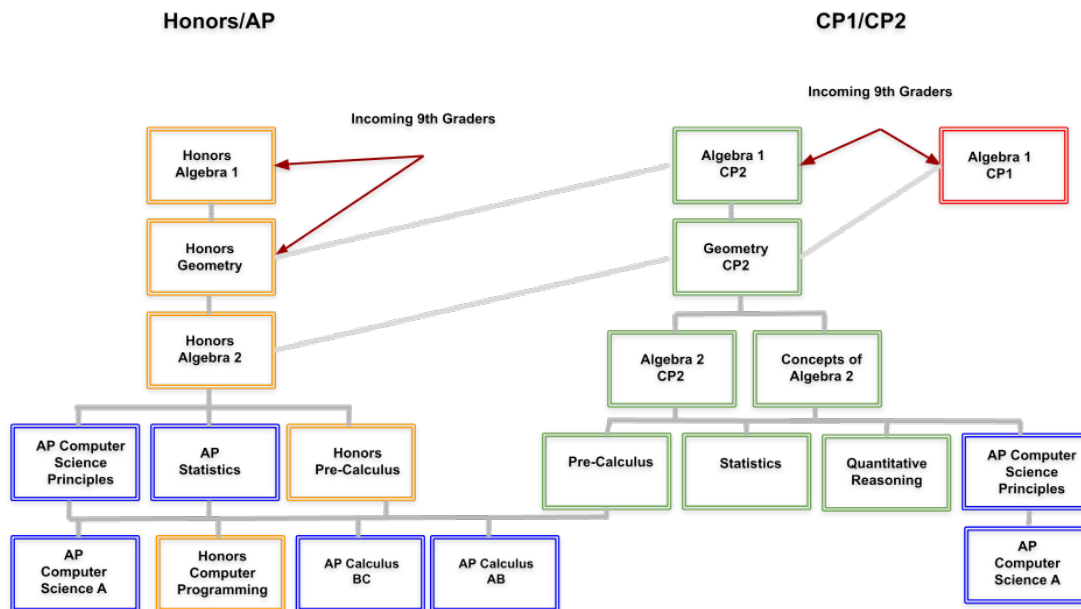




# MATHEMATICS

The goal of the Ipswich High School Math Department is to enhance the ability of all students to solve problems and reason quantitatively. Through a coordinated program that emphasizes application, critical thinking, logic, and mathematical communication, IHS students develop the quantitative skills they need for college and career readiness.

Core mathematics courses are differentiated by level of difficulty. Movement between levels is encouraged and placement in each level is determined by prior performance in math classes and/or teacher recommendation.



## Core Math Sequences:

Electives: The following courses offer students the opportunity to apply mathematical concepts, but are not counted towards the core mathematics requirement for graduation

- Personal Finance – open to all students in grades 10 and above
- Business and Entrepreneurship – open to all students in grades 10 and above
- Computer Science Discoveries – open to all students
- Honors Computer Science - open to students in grades 10-12 who meet the prerequisites
- AP Computer Science Principles – open to students in grades 10-12

### MTH01CP1

#### PREP 1

Prerequisite: recommendation of Grade 8 teacher.

### ALGEBRA I – COLLEGE

#### 5 Credits

Algebra I CP1 reinforces the algebraic skills acquired previously and connects this knowledge to new topics. In this CP1 level course, students gain fluency in solving linear equations and linear systems and are introduced to quadratic and exponential functions. Students are also introduced to arithmetic sequences. They develop their ability to represent real-life phenomena with mathematical models. Models used include linear, quadratic, and exponential functions. Where appropriate, students use writing, hands-on activities, and technology to develop conceptual understanding.

**MTH01CP2**  
**PREP 2**

**ALGEBRA I – COLLEGE**  
**5 Credits**

Prerequisite: recommendation of Grade 8 teacher.

Algebra I CP2 extends the algebraic concepts acquired in previous courses. Students develop fluency in writing, interpreting, and translating among various representations of functions, including linear, quadratic, and exponential functions. Arithmetic and geometric sequences are introduced and explored. Students strengthen their ability to model with mathematics and see structure in linear, quadratic and exponential expressions. Appropriate use of technology will be modeled throughout the course.

**MTH01H**

**ALGEBRA I – HONORS**  
**5 Credits**

Prerequisite: recommendation of Grade 8 teacher.

Algebra I Honors extends the algebraic concepts acquired in previous courses and introduces students to the concept of algebraic proof. Only students who have excelled in eighth grade mathematics and have obtained the recommendation of their 8th grade teacher should be enrolled in Algebra I at the honors level. In this course, students develop fluency writing, interpreting, and translating among various forms of linear, quadratic, and exponential functions. Arithmetic and geometric sequences are introduced and explored. Students strengthen their ability to model with mathematics and see structure in linear, quadratic and exponential expressions. Appropriate use of technology will be modeled throughout the course.

**MTH01ELL**

**SHELTERED ALGEBRA I**  
**5 Credits**

Prerequisite: Approval by ELL program

Using a sheltered English approach, this course establishes core understandings necessary to succeed in algebra. Emphasis will be on mastery of basic algebra skills and problem solving strategies. It covers patterns and sequences, linear equations and inequalities in one variable, systems of equations, and an introduction to quadratic and exponential functions. Additionally, the course seeks to strengthen students' foundational skills and may include topics in operations with integers and rational numbers, percents, organizing data, and graphs.

Placement in this course is by EL recommendation only. Upon successful completion of this course, students will be ready to take Geometry.

### **MTH02CP2**

#### **PREP 2**

Prerequisite: CP2 Algebra I (passing grade)

### **GEOMETRY – COLLEGE**

**5 Credits**

Geometry CP2 explores congruence, similarity, transformations and properties of triangles, polygons and circles. Algebraic connections are made as students apply geometric concepts in solving unknown values. Students use trigonometric ratios to solve for unknown sides and angles of right triangles and to model real-life situations. Logical reasoning is developed as students use postulates and theorems to develop formal proofs. Students expand their ability to compute and interpret theoretical and experimental probabilities for compound events.

### **MTH02H**

### **GEOMETRY HONORS**

**5 Credits**

Prerequisite: recommendation of Grade 8 teacher or Honors Algebra I (87 or above) or CP2 Algebra (93 or above)

In Geometry Honors, students explore congruence, similarity, transformations and properties of triangles, polygons and circles. Algebraic connections are made as students apply geometric concepts in solving unknown values. Students use trigonometric ratios to solve for unknown sides and angles of triangles and model real-life situations. Logical reasoning is developed as students use postulates and theorems to develop formal proofs based on complex and three-dimensional diagrams. Coordinate proofs using variables allows students to generalize their findings and write proofs based on deductive reasoning. Students expand their ability to compute and interpret theoretical and experimental probabilities for compound events.

### **MTH04CP2**

#### **II – COLLEGE PREP 2**

Prerequisite: Geometry CP2 (73 or above) AND Algebra I CP2 (73 or above) or Algebra I CP1 (93 or above)

### **CONCEPTS OF ALGEBRA**

**5 Credits**

In Concepts of Algebra II, students create and solve equations, graph functions (including polynomial, rational, radical and exponential) and apply the concept of functions to solve problems. As students refine and expand their algebraic skills, they draw analogies between the operations and properties of real numbers and those of complex numbers and algebraic expressions. The course begins with a review of functions studied in previous algebra courses and then moves on to new function types. Students make connections between verbal, numeric, algebraic, and graphical representations of functions, and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real world problems. Throughout the course, students use technology, where appropriate, to support problem solving and conceptual understanding.

**MTH03CP2****PREP 2**

Prerequisite: Geometry CP2 (73 or above) or Geometry CP1 (93 or above) AND Algebra I CP2 (73 or above) or Algebra I CP1 (93 or above)

**ALGEBRA II – COLLEGE****5 Credits**

In Algebra II, students gain skills and conceptual understanding of functions, polynomial, rational and radical expressions, data collection and analysis. The course begins with a review of linear, quadratic and exponential functions to solidify a foundation for learning about new function types. Students make connections between verbal, numeric, algebraic, and graphical representations of functions, and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real world problems. Building on earlier training in statistics and probability, students learn to describe data sets and draw conclusions from sample surveys, experiments and observational studies.

**MTH03H****ALGEBRA II HONORS****5 Credits**

Prerequisite: Geometry Honors (83 or above) OR Geometry CP2 (93 or above) and Algebra I Honors (87 or above) OR Algebra I CP2 (93 or above)

In Algebra II Honors, students develop fluency and conceptual understanding of functions, polynomial, rational and radical expressions, periodic phenomenon, data collection and analysis. In addition, honors students are introduced to algebraic proof and number theory concepts. Students make connections between verbal, numeric, algebraic, and graphical representations of functions, and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real world problems. Building on earlier training in statistics and probability, students learn to describe data sets and draw conclusions from sample surveys, experiments and observational studies.

**MTH05CP2****COLLEGE PREP 2**

Prerequisite: CP2 Algebra II (73 or above) OR Concepts of Algebra II and Quantitative Reasoning (93 or above in both)

**PRE-CALCULUS –****5 Credits**

The goals of Pre-calculus are to strengthen students' reasoning and problem solving skills and provide the mathematical background necessary for the study of calculus. The course will cover advanced work with complex numbers and logarithms and multi-step applications of exponential, polynomial, rational and trigonometric functions. An introduction to vectors and matrices will be included in this course. Students will engage in mathematical tasks that connect concepts learned in their study of algebra, trigonometry and geometry. In addition, students will begin a study of limits in preparation for calculus.

**MTH05H****PRE-CALCULUS HONORS  
5 Credits**

Prerequisite: Algebra II Honors (83 or above) OR Algebra II CP2 (93 or above) and Geometry Honors (83 or above) OR Geometry CP2 (93 or above)

The goals of Pre-calculus Honors are to strengthen students' reasoning and problem solving skills and provide the mathematical background necessary for the study of calculus. Students advance their understanding of trigonometry, asymptotic behavior of functions. In addition, they are introduced to the concepts of a limit in preparation for calculus. Students engage in advanced problem solving and mathematical tasks that connect concepts learned in their study of algebra and geometry.

**MTH17CP2  
REASONING  
MTH17H****QUANTITATIVE  
5 Credits**

Prerequisite: Algebra II (passing grade) or Concepts of Algebra II (passing grade)

Quantitative Reasoning is offered to students who have completed Algebra I, Geometry and Algebra II. Hands-on materials and data collection are used to demonstrate how the mathematical concepts students have learned throughout their schooling can be applied to solve problems they are likely to encounter in their professional and personal lives. In this course, students will learn to analyze information, model relationships mathematically and solve complex problems. Concepts from Trigonometry, Statistics and Probability will be incorporated. As a project-based course, students are expected to work with others, share ideas, make presentations and do their highest quality work.

**MTH14CP2  
MTH14H****STATISTICS 5 Credits**

Prerequisite: Algebra II (passing grade) or Concepts of Algebra II (87 or higher)

This course is designed for students who have completed Algebra II and want to learn more about applied statistics. Students will collect, analyze, present and interpret data. In this course we will explore the introductory concepts of Statistics to build a foundation for further study and application.

**MTH14AP  
STATISTICS****ADVANCED PLACEMENT  
5 Credits**

Prerequisite: Honors Algebra II (83 or above) or CP2 Algebra II (93 or above) and department recommendation

This course follows the Advanced Placement syllabus issued by the College Board. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students will be exposed to four broad conceptual themes: describing data patterns and departures from patterns, planning and

conducting a study; exploring random phenomena using probability and simulation, and using sample data to draw inferences about a population. All students who take AP Statistics are required to take the AP exam in May.

**MTH06AP  
ADVANCED PLACEMENT**

Prerequisite: Honors Pre-Calculus (83 or above) or CP2 Pre-Calculus (93 or above) and department recommendation

**CALCULUS AB  
5 credits**

This course follows the Advanced Placement syllabus issued by the College Board. Students who enroll in this course must have a strong Honors Algebra 2 and Honors Pre-Calculus background, excellent abstract reasoning skills, and study habits commensurate with the rigorous expectations of this course. In AP Calculus, students develop the skills and conceptual understandings acquired in a college-level Calculus 1 course. An intensive study of limits, derivatives, techniques of integration and the Fundamental Theorem of Calculus is combined with applications of these topics. All students who take AP Calculus AB are required to take the AP exam in May.

**MTH38AP  
ADVANCED PLACEMENT**

Prerequisite: Honors Pre-Calculus (93 or above) and department recommendation

**CALCULUS BC  
5 credits**

This is an intensive college-level course on differential and integral calculus, equivalent to the first two semesters of calculus at most universities. Topics include an introduction to limits and continuity, derivatives and their applications, integrals and their applications, antiderivatives and the Fundamental Theorem of Calculus, an introduction to differential equations using slope fields and Euler's Method, Taylor polynomials and series, and calculus using parametric, vector and polar equations. There is an emphasis on conceptual understanding and working with functions represented graphically, numerically, analytically, and verbally. All students who take AP Calculus BC are required to take the AP exam in May.

**MTH07CP2  
DISCOVERIES  
MTH07H**

**COMPUTER SCIENCE  
2.5 Credits**

Computer Science Discoveries (CS Discoveries) is an introductory computer science course that empowers students to complete projects aligned with their interests and engage with computer science as a medium for creativity, communication, problem solving, and fun. Students will learn basic programming concepts as they create web pages, event-driven applications (APPs) and games in HTML/CSS and JavaScript. They will explore the role of computer science in devices as they write code to integrate with sensors and other hardware. Students will additionally learn the interplay between computer science and product development, intellectual property ownership and electronic security. This course will help

students understand how computer science can be used to entertain, inform and solve problems.

**MTH08H  
PROGRAMMING HONORS**

**COMPUTER  
5 Credits**

Prerequisites: Completed Geometry CP2 (80 or above) and English 9 (80 or above)

This course provides students with an introductory experience in computer programming using the Java language. Students will examine object-oriented principles (abstraction, encapsulation, inheritance and polymorphism), basic data structures, arrays, searching, sorting, and Boolean logic. Other topics may be included as time allows. This course introduces students to programming without the burden of the AP Computer Science A course.

**MTH09AP  
A**

**AP COMPUTER SCIENCE  
5 Credits**

Prerequisite: 87 or above in Geometry Honors, and permission of the instructor.

This course follows the Advanced Placement® syllabus issued by the College Board each year and is implemented in the Java language. Current topics include object-oriented principles (abstraction, encapsulation, inheritance and polymorphism), arrays, searching, sorting, and recursion. Themes include communicating through documentation, reusability of code, and socio-ethical aspects of computing. As time permits, students may explore applets, GUIs, and additional data structures.

**MTH16AP  
PRINCIPLES**

**AP COMPUTER SCIENCE  
5 Credits**

Prerequisite: Permission of the instructor. Elective Course: Open to students in grades 10-12.

AP Computer Science Principles offers a multidisciplinary approach to the underlying principles of computational thinking. Students are introduced to computational problem solving, abstractions, algorithms, large data sets, the internet, cybersecurity, basic programming, and the creative aspects of computer science. AP Computer Science Principles gives students the opportunity to use technology to solve problems of interest to the student. This course incorporates a great deal of independent work and collaboration with peers, so academic maturity is essential for success. No prior knowledge of computer science is required.

**MTH12CP2**

**PERSONAL FINANCE  
2.5 Credits**

**MTH12H**

Prerequisite: Algebra I (passing grade, any level). Elective Course: Open to students in grades 10-12.

Personal Finance provides students with many of the tools necessary to become financially responsible adults. Students will learn about the importance of setting financial goals, the power

of compound interest, responsible use of credit and bank accounts, and how to budget and save money. The basics of taxes, investing, insurance, and how to evaluate a benefits package at work will also be explored. Personal Finance is highly recommended for all students who have completed Algebra I.

**MTH10CP2**  
**ENTREPRENEURSHIP**  
**MTH10H**

**BUSINESS AND**  
**2.5 Credits**

Elective Course: Open to students in grades 10-12

In this course, students learn the skills, attitudes, characteristics, and techniques necessary to become successful business owners or entrepreneurs. They explore the process of starting a business and learn about the operational issues and financial risks. Students will gain an understanding of business plans, start-up capital, and bookkeeping methods. Finally, students identify the risks, returns, and other aspects of entrepreneurship as a potential career.



# MUSIC

The Music Department offerings are divided into the following three areas:

**Performing Ensembles** - Band, Choir, and Orchestra. Students may sign up for more than one Performing Ensemble. See the multiple performing Ensemble options below.

**Audition Ensembles** - Bel Canto, Chamber Singers, Jazz Ensemble, Chamber Orchestra, Wind Ensemble and Symphony Orchestra for wind, brass and percussion players.

**Electives** – Advanced Musicianship, Music Theory I, Music Theory II, Guitar Experience, and Songwriting.

## Performing Ensembles

### MUS01CP2

### CONCERT BAND 7

#### Credits

#### MUS01H

Prerequisite: Proficiency on a wind, percussion or other participating instrument.

The Concert Band studies and performs standard wind band repertoire, with an emphasis on technical development, control of tone and intonation, musical terminology and balanced ensemble sound. The band experience includes pep band, concert band, small ensembles, and sectional rehearsals. Musical development is reinforced through group instruction and daily practicing. Attendance is required at all rehearsals and performances.

### MUS02CP2

### CONCERT CHOIR 5

#### Credits

#### MUS02H

Prerequisite: Willingness to sing and contribute to the team

Choral music at Ipswich High School is an elective academic subject with CONCERT CHOIR as the core chorus organization: a performance-oriented class where students develop the vocal technique through the use of vocal warm-ups and literature to enhance tone quality, breathing, intonation, diction, and vocal maturity, as well as solfege and sight-reading skills. This mixed chorus rehearses and performs a wide range of challenging choral music representative of many styles, genres, cultures, and periods and performs at school and community events. All students in grades 9-12 are welcome. Attendance at all rehearsals and performances is required.

**MUS03CP2****ORCHESTRA 5 Credits****MUS03H**

Prerequisite: Proficiency on a string instrument, permission of the instructor.

Orchestra studies string music from the Renaissance, Baroque, Classical and Contemporary periods. In addition to developing mature tonal, rhythmic, and interpretation skills the Orchestra will also focus on the unique technical skills of string instruments. Attendance at all rehearsals and performances is required.

Ipswich High School students enrolled in Band, Chorus and Orchestra have the option of pursuing honors credit. Students seeking honors credit are expected to be leaders in their respective groups and are required to complete 2 additional requirements per semester. Honors Contracts are available from instructors. Instructors must approve projects in the first week of Semesters 1 and 2. Projects must be completed before final exams each semester.

**Multiple Performing Ensemble Options**

Students who elect to be in two or three of our core performance groups (Concert Band, Concert Choir, and Orchestra) will enroll in one of our performance options. (See course descriptions for Concert Band, Concert Choir and Orchestra.) Band Ensembles require attendance at PEP Band and therefore receive additional credit.

**MUS04CP2****BAND/CHORUS 7****Credits****MUS04H****MUS05CP2****BAND/ORCHESTRA 7****Credits****MUS05H****MUS07CP2****ORCHESTRA/CHORUS  
5 Credits****MUS07H****MUS08CP2****BAND/CHORUS/ORCHEST  
7 Credits****RA****MUS08H****Audition Ensembles****MUS10H****HONORS CHAMBER  
3 Credits****ORCHESTRA**

Prerequisite: Competitive audition, permission of the instructor and registration in Orchestra.

CHAMBER ORCHESTRA is a select group of string students that perform challenging and original works for string orchestra. Repertoire will include works from the Renaissance, Romantic, Impressionist, and Contemporary periods. The Chamber Orchestra will perform at school concerts, district and state competitions. Chamber Orchestra will also represent the Orchestra Program at community functions. Attendance is required at all rehearsals and performances and individual practice is expected outside of the classroom rehearsal.

### **MUS12H HONORS JAZZ ENSEMBLE**

**3 Credits**

Prerequisite: Competitive audition, permission of the instructor and registration in Concert Band

JAZZ ENSEMBLE meets once a week and performs, listens to, and analyzes the music from the 20th Century to modern day. This music includes Afro-American jazz, fusion, funk, and popular songs. Students will perform in a big band setting with emphasis placed on jazz style, improvisation, and the historical aspects of the development of the jazz genre.

### **MUS16H ORCHESTRA**

**HONORS SYMPHONY  
3 Credits**

Prerequisite: Competitive audition, permission of the instructor and registration in Band.

SYMPHONY ORCHESTRA is a select group of brass, woodwind and percussion students that will perform challenging music written for Symphonic Orchestra. Students will develop advanced sight reading, solo and ensemble skills. Repertoire will be drawn from Renaissance, Classical, Romantic, Impressionist and Contemporary periods. The Symphony Orchestra will perform at school performances, district and state competitions. Attendance is required at all rehearsals and performances.

### **MUS11H SINGERS**

**HONORS CHAMBER  
3 Credits**

Prerequisite: Competitive audition, permission of the instructor and registration in Concert Choir.

CHAMBER SINGERS is a select choir drawn from the Concert Choir dedicated to the performance of literature best suited to a chamber group of advanced musicians. Students should be able to read and memorize music quickly and carry their own part in a small ensemble. All of the requirements and standards of excellence in Concert are maintained. As this chorus offers a more rigorous and comprehensive repertoire and honor approach to choral concepts, individual practice is expected outside of classroom rehearsal. Attendance is required at all rehearsals and performances.

### **MUS06H**

**HONORS BEL CANTO  
3 Credits**

Prerequisite: Competitive audition, permission of the instructor and registration in Concert Choir.

BEL CANTO is a select women's choir drawn from the Concert Choir for the performance of advanced treble literature. Students should be able to read and memorize music quickly and carry their own part in a small ensemble. All of the requirements and standards of excellence in Concert Choir are maintained. As this chorus offers a more rigorous and comprehensive repertoire and honor approach to choral concepts, an emphasis is placed upon each singer's responsibilities, particularly in the individual's preparation for rehearsals and performances. Attendance is required at all rehearsals and performances.

## **MUS25CP2**

## **WIND ENSEMBLE 2.5**

### **Credits**

Prerequisite: Competitive audition, permission of the instructor, and registration in band or orchestra.

WIND ENSEMBLE is a select group of woodwind, brass, and percussion students that will perform challenging music written for wind ensemble. Students will develop advanced sight reading, solo, and ensemble skills. Most sections include only one or two students per part, so members must be strong musicians and take ownership of their unique roles. Repertoire will be drawn primarily from the 20th and 21st centuries, and features greater musical and technical challenges than concert band repertoire. Wind Ensemble performs at Spring concerts. Attendance is required at all rehearsals and performances.

## **Electives**

## **MUS13H MUSICIANSHIP**

## **HONORS ADVANCED 2.5 credits**

Prerequisite: Permission of the instructor.

This course will offer instruction in the development of advanced performing skills and techniques. Students will design their own performance projects in collaboration with the instructor and other students in the class. Students may work as individuals or as a small ensemble and will need to choose one of the following tracts. This course is designed for the serious music student with an interest in developing a performance project/recital, exploring jazz improvisation, or recording a music supplement for college acceptance.

Students must choose one of the following tracts per semester: Chamber Music; Jazz Improvisation; or Solo Performance.

## **MUS14CP2 Credits MUS14H**

## **MUSIC THEORY I 2.5**

Prerequisite: Permission of the instructor.

This course is designed to teach the elements of music and to develop basic musical skills such as sight-reading, melodic and rhythmic dictation, and composition. Students will learn to read and write Western music notation in different clefs, keys and meters: will construct scales, and identify and spell intervals, study basic harmony, and learn basic compositional techniques.

**MUS17CP2**

**MUSIC THEORY II 2.5**

**Credits**

**MUS17H**

Prerequisite: Completion of Music Theory I, and/or permission of the instructor.

This course reinforces concepts learned in Music Theory I, continues with ear training and dictation exercises, and introduces additional elements of music, including modes, 7th chords, inversions, cadences, and melody writing. Extensive work in voice leading and 4-part writing is included, along with harmonic analysis and compositional technique. This is an excellent course for students planning on studying music at the college level.

**MUS15CP2**

**THE GUITAR EXPERIENCE**

**(LEARN TO PLAY GUITAR)**

**2.5 Credits**

This course will teach basic guitar techniques for the beginning guitarist. The course will cover music notation including chord frames, lead sheets and tablature, basic harmonic structure, chord symbols and chord strumming patterns, solos, basic music theory, and basic guitar maintenance and care. Students will be introduced to various guitar styles including folk, classical, blues and rock as well as exposure to string music from around the world. The course culminates in an "open mic" performance to showcase students' work. Students must provide their own acoustic guitar for use in class.

**MUS37CP2**

**SONGWRITING 2.5**

**Credits**

Songwriting provides students with a solid background in the art and craft of songwriting. Students will study the elements of songwriting: lyrics, rhythm, melody, harmony, the relationship of words to music, song structure and song structure. Students will work on their original compositions through a series of group and solo activities. Required: a willingness to perform music for others.

## PHYSICAL EDUCATION/HEALTH

### **PEH09CP2**

**PE/Wellness 9 2.5**

#### **Credits**

#### **PEH09H**

Physical Education for grade 9 is a combination of sports and physical fitness. Units will include tennis, volleyball, badminton, pickleball and ultimate Frisbee. Fitness training will include H.I.I.T. (High Intensity Interval Training), TRX work, Weight Room and Aerobics room training and outdoor track training. Activities may include: floor hockey, cross-country skiing, basketball, futsal, gator ball, ping pong, track and field, new games, more personal fitness videos and a pre/post-physical fitness assessment.

### **PEH10CP2**

**PE /Wellness 10**

#### **PROJECT ADVENTURE**

**2.5 Credits**

#### **PEH10H**

Prerequisite: Sophomore status.

Project Adventure is a course in which Physical Education and the Outdoor Adventure-Based Learning Process are combined as one curriculum. The Project Adventure course is designed to develop balance, coordination, agility, and willingness to trust, within a supportive, non-competitive atmosphere. The program offers adventure games, trust activities, leadership and problem solving, low balance course, technical skills (knot tying), low and high ropes course (indoors and outdoors) and selected field trips.

### **PEH02CP2**

**PE/Wellness**

#### **ADVANCED PROJECT ADVENTURE**

**2.5 Credits**

#### **PEH02H**

Prerequisite: B or higher grade in Project Adventure. Junior or Senior status

Advanced Project Adventure follows the same philosophy, goals and objectives as Project Adventure. A student who signs up for this program is seeking greater challenges and a desire to improve on technique, terminology and processing. The exploration of outdoor opportunities involves research, group discussions and field trips, including a weekend overnight trip.

### **PEH05CP2**

**LIFETIME**

#### **SPORTS/Wellness**

**2.5 Credits**

#### **PEH05H**

Prerequisite: Junior or Senior status

Units will include: archery, golf, bowling, pickleball, ultimate Frisbee, badminton, volleyball, tennis. Activities may include: floor hockey, cross-country skiing, basketball, futsal, gator ball, ping pong, track and field, new games and a variety of personal fitness videos. Personal fitness

will be an option for all units. Classes will participate in weekly High Intensity Interval circuits. This course will emphasize skill development, competitive game play and fitness that will benefit students throughout their adult lives. There will be a pre/post-physical fitness assessment. Honors options available.

**PEH14CP2**  
**SPORTS/WELLNESS 2**  
**PEH14H**

**LIFETIME**  
**2.5 Credits**

Prerequisite: Passing grade in Lifetime Sports/Wellness

Students will be asked to fully participate in all units using an experienced perspective. Advancing in overall unit skill development is expected. Units may include: archery, golf, bowling, pickleball, ultimate frisbee, badminton, volleyball, tennis. Activities may include: floor hockey, cross-country skiing, basketball, futsal, gator ball, ping pong, track and field, new games and a variety of personal fitness videos. Personal fitness will be an option for all units. Classes will participate in weekly High Intensity Interval circuits and PLT4M training. This course will emphasize skill development, competitive game play and fitness that will benefit students throughout their adult lives. There will be a pre/post-physical fitness assessment. Honors options available.

**PEH01CP2**  
**PEH01H**

**HEALTH & WELLNESS**  
**2.5 Credits**

Health and Wellness provides students with the skills and health literacy necessary for proper and informed decision making throughout the various developmental stages of their lives. Students learn the essentials of the seven dimensions of wellness. This course focuses on developing the knowledge, attitudes, and appreciation necessary to meet present and future health needs of youth and society. We stress responsible decision making, cooperation, communication, prevention, refusal skills, and self-management as a means for developing these necessary life skills. This course may also be taken for Honors Credit.

**PEH03CP2**  
**FOR LIFE**

**FITNESS & NUTRITION**  
**2.5 Credits**

Prerequisite: Recommended for Sophomore, Junior or Senior status

This elective is designed to further students' knowledge in the areas of caloric intake (diet) and caloric expenditure (exercise). Students will learn about the musculoskeletal system, types of exercise, creating a workout program in addition to nutrition to maintain a healthy lifestyle. The course is broken into two sections. Section one will take place in an academic classroom setting and section two will take place in the gymnasium and/or weight room executing workouts. Through proper planning, implementing, and tracking students will gain an understanding of the balance that is needed to achieve personal goals.

**PEH00CP1  
PHYSICAL EDUCATION**

**SPORTS REPLACEMENT /  
0 Credits**

Juniors and seniors who have completed their 5 credits in physical education may elect this course if they complete one or more seasons of junior varsity or varsity level interscholastic athletics during their junior and/or senior years. Students must successfully complete the entire sport season in order to receive a passing grade. Students who choose not to elect one or more junior varsity or varsity level sports during their junior and/or senior year will be responsible for earning an additional 5 credits in physical education in order to fulfill their graduation requirement (see page 3).

**PEH09/10TACP2 PHYSICAL EDUCATION TEACHER ASSISTANT 2.5 Credits**

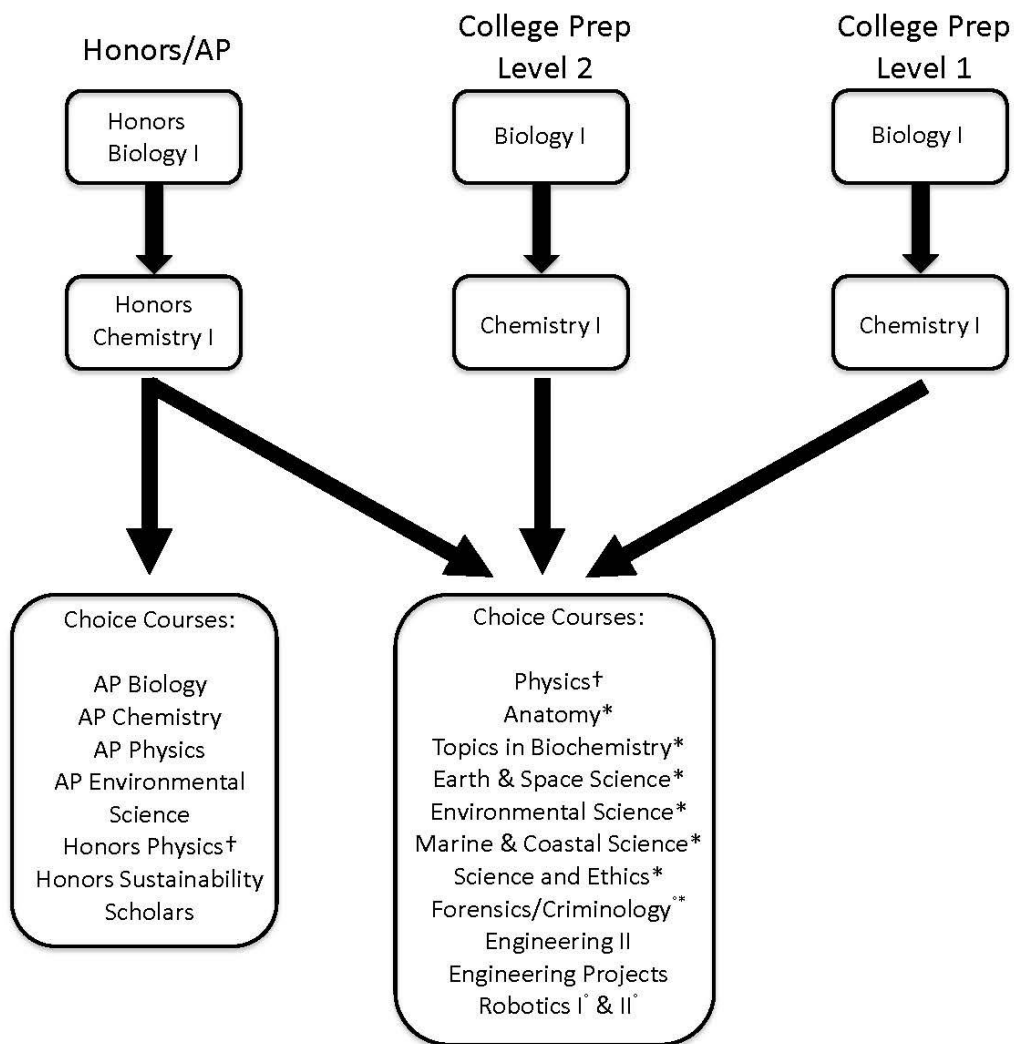
Open to grades 11 and 12 with prior approval of the Physical Education teacher.

Physical education teacher assistants will help the teacher distribute, collect, set up and take down equipment, lead conditioning and stretching exercises and otherwise assist in PE/Wellness 9 or PE/Wellness 10 Project Adventure classes. To register for this course one must have prior approval from the teacher.



## SCIENCE

## IHS Science Course Progression



†Highly recommended for all STEM and medical/health majors.

\* Honors Contract Available

°2.5 Science Lab Credits



**SCI01CP1  
PREP 1 (LAB)**

**BIOLOGY I - COLLEGE  
5 credits**

This is a basic college preparatory biology lab science course developed to address the following topics: the chemistry of life, cell biology, genetics, human anatomy & physiology, evolution, & ecology. The textbook reading level and the pacing of the topics, activities, and lab experiences in this course are designed to help students to develop independent study skills. Students will understand the most essential concepts of biology as determined by state standards. Opportunities to apply these concepts will be provided throughout the learning experience. Students are expected to conduct an independent science investigation as a member of a small group and present this work at the district's annual STEAM showcase in April.

**SCI01CP2  
PREP 2 (LAB)**

**BIOLOGY I - COLLEGE  
5 credits**

This is a college preparatory biology lab science course developed to address the following topics: the chemistry of life, cell biology, genetics, human anatomy & physiology, evolution, & ecology. The textbook reading level and the pacing of the topics, activities, and lab experiences in this course are designed to foster independent study skills. Students will understand the most essential concepts of biology as determined by state standards. Opportunities to apply these concepts will be provided throughout the learning experience. Students are expected to conduct an independent science investigation as a member of a small group and present this work at the district's annual STEAM showcase in April.

**SCI01H**

**BIOLOGY I HONORS (LAB)  
5 credits**

Prerequisites: approval by grade eight teacher/team, student has demonstrated the ability to use independent study skills.

This is an advanced college preparatory biology lab science course developed to address the following topics: the chemistry of life, cell biology, genetics, human anatomy & physiology, evolution, & ecology. The textbook reading level and the pacing of the topics, activities, and lab experiences in this course are designed for students who have developed independent study skills. Students will understand and apply the most essential concepts of biology as determined by state standards. Students are expected to conduct an independent science investigation as a member of a small group and present this work at the district's annual STEAM showcase in April.

**SCI03AP  
(LAB) BIOLOGY™**

**ADVANCED PLACEMENT  
5 credits**

Prerequisites: Honors Biology and Chemistry with a B+ or better, or CP Biology and Chemistry with an A- or better, and department approval.

This course is the equivalent to an Introduction to Biology course taken in the first year of college. The curriculum addresses the new standards as outlined by the College Board and includes the following units: animal behavior and ecology, chemistry of life, the cell and membrane processes, metabolism, cellular genetics, molecular genetics, and evolution. Four big ideas are used thematically to help students make important connections across the curriculum. Additionally, there are seven scientific practices emphasized that require students to design and carry out lab activities, analyze data, and make graphical and statistical representations of data.

Students taking AP Biology will complete a self-directed unit of study during the summer and are required to take the AP examination in Biology in May.

**SCI04CP1**  
**PREP 1 (LAB)**

**CHEMISTRY I – COLLEGE**  
**5 credits**

Prerequisites: Passing score in Biology I and departmental approval

In this course students will develop a basic understanding of chemistry. Course topics include scientific measurements, states of matter, structure of the atom, the periodic table, bonding, naming compounds, formula writing, chemical reactions, the mole, and an introduction to stoichiometry. Hands-on laboratory experiments will help students understand chemistry concepts and build proper laboratory techniques. Students will also work on developing problem solving skills.

**SCI04CP2**  
**PREP 2 (LAB)**

**CHEMISTRY I – COLLEGE**  
**5 credits**

Prerequisites: Passing score in Biology I and departmental approval

In this course students will develop a foundational understanding of chemistry. Course topics include scientific measurements, states of matter, structure of the atom, the periodic table, bonding, naming compounds, formula writing, chemical reactions, the mole, and stoichiometry. Hands-on laboratory experiments will help students understand and begin to apply chemistry concepts and to build proper laboratory techniques. Students will also work on fostering problem solving skills and communicating their laboratory findings.

**SCI04H**  
**(LAB)**

**HONORS CHEMISTRY I**  
**5 credits**

Prerequisites: Honors Biology with a B+ or better, or CP2 Biology with an A or better and completion of Honors Algebra I with an A or better or completion of Honors Geometry with a B or better and departmental approval.

This course is more mathematical and moves at a faster pace than Chemistry I. Strong writing, mathematical and analytical skills are required. Algebraic concepts will be applied extensively. Topics presented throughout the course will include atomic structure, states and composition of

matter, Periodic Table trends, formula writing and chemical bonding, chemical reactions, moles, stoichiometry and gas laws.

**SCI06AP  
CHEMISTRY™ (LAB)**

**ADVANCED PLACEMENT  
5 credits**

Prerequisites: Honors Biology and Honors Chemistry I with an average of B+ or better and departmental approval.

This course is the equivalent of a general course in chemistry taken in the first year of college. The course deals with complex topics in chemistry according to standards established by the College Board, with an emphasis on data analysis, problem solving and advanced inquiry and reasoning skills. Topics include bonding and intermolecular forces, thermochemistry, kinetics, equilibrium, acid/base reactions, electrochemistry, and introduction to organic chemistry and laboratory techniques. Students are required to take the AP examination in Chemistry in May.

**SCI07CP2**

**PHYSICS I CP2 (LAB)  
5 credits**

Prerequisites: Biology and Chemistry with a C or better and Geometry and Algebra 1 with a C or better.

A physics course is highly recommended for all students interested in pursuing STEM or medical/health fields after high school.

Physics 1 is designed for juniors and seniors interested in pursuing a challenging college preparatory curriculum. The course concentrates on a systemic understanding of fundamental physics and physical processes. A strong emphasis is placed on laboratory investigations and analytical thinking through conceptual and mathematical modeling. Topics covered are classical mechanics including kinematics, dynamics (forces), work, energy, momentum, rotational dynamics, waves, electrostatics, and electric circuits.

**SCI07H**

**HONORS PHYSICS I (LAB)  
5 credits**

Prerequisites: Honors Biology and Honors Chemistry with a B+ or better and Honors Geometry with a B+ or better and departmental approval.

A physics course is highly recommended for all students interested in pursuing STEM or medical/health fields after high school.

Honors Physics 1 is an in-depth physics class recommended for juniors and seniors interested in pursuing a challenging college preparatory curriculum, and considering a curriculum of science, mathematics, or engineering in college. The course concentrates on a systemic understanding of fundamental physics and physical processes. Independent learning is a cornerstone of the course with students being required to demonstrate strong reasoning and writing skills. Emphasis is placed on laboratory investigations and analytical thinking through

conceptual and mathematical modeling. Topics covered are classical mechanics including kinematics, dynamics (forces), work, energy, momentum, rotational dynamics, waves, electrostatics, and electric circuits.

**SCI09AP  
PHYSICS I (LAB)™**

**ADVANCED PLACEMENT  
5 credits**

Prerequisites: Honors Biology and Honors Chemistry with a B+ or better and departmental approval.

A physics course is highly recommended for all students interested in pursuing STEM or medical/health fields after high school.

A.P. Physics I is an algebra-based college-level course open to juniors and seniors meeting the prerequisites. The course focuses on the big ideas typically included in the first semester of algebra-based, introductory college-level physics sequence and provides students with enduring understandings to support future advanced course work in the sciences. Through inquiry-based learning, students will develop critical thinking and reasoning skills, as defined by the A.P. Science Practices. A minimum of 25% of instruction time involves laboratory investigations. Topics covered are kinematics, dynamics (forces), work, energy, momentum, rotational dynamics, simple harmonic motion, and fluids.

\*Note this course is not open to students who have already taken Honors Physics.

**SCI28AP ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (LAB) 5 credits**

Prerequisites: Honors Biology and Honors Chemistry with a B+ or better and departmental approval.

This class is equivalent to a first-year college-level course that incorporates both physical and ecological sciences in the study of the environment. Topics addressed in the APES course are outlined by the College Board and include Ecosystems, Biodiversity, Populations, Earth Systems, Land & Water Use, Energy Resources, Air & Water Pollution, and Global Change. There will be an emphasis on data analysis, problem-solving and advanced inquiry and reasoning skills and therefore students should have a strong background in math. Students taking AP Environmental Science will complete a self-directed unit of study during the summer and are required to take the APES examination in May.

**SCI12CP2  
credits  
SCI12H**

**ANATOMY (LAB) 5**

Prerequisites: Passing score in biology and chemistry. (Honors contract is available for students who have passed honors classes with a B or better, or CP with an A- or better, and department approval).

Anatomy is the exploration of structure dictating function in the human body! This connection is seen across all levels of organization. Units cover the chemistry of life, cell biology, histology, muscle physiology, and all of the body systems, with the muscle and skeletal systems in great detail. Assessments are varied and include microscope stations for histology and dissections, and a skeletal dissertation. The lab portion of this class focuses on dissections. These include the cow eyeball, sheep brain, and fetal pig. Each dissection is given more time as the class progresses and has a lab practical for a final assessment with anatomical stations.

**SCI10CP2**  
**SCIENCE (LAB)**  
**SCI10H**

**EARTH AND SPACE**  
**5 credits**

Prerequisites: Passing score in biology and chemistry (Honors contract is available for students who have passed honors classes with a B or better, or CP with an A- or better, and department approval.)

Honors students are required to attend field trips and conferences, all students are expected to go on at least five of several partial-day outings to the salt marsh, the Ipswich River, an evening stargazing, and local oceanfront venues.

This course is designed to examine the workings of the earth as a planet, with some study of other planets and the universe as a whole. Students will become aware that the various “spheres” (hydrosphere, cryosphere, atmosphere, geosphere) are always interacting. Students will also investigate advances in earth and planetary exploration and examine the findings to develop understandings of how the earth works. The course will involve students in hands-on activities, independent work, group work, and presentations. Course topics include: geology, oceanography, astronomy, climate change and atmospherology.

**SCI14CP2**  
**SCIENCE (LAB)**  
**SCI14H**

**ENVIRONMENTAL**  
**5 credits**

Prerequisites: Passing score in biology and chemistry (Honors contract is available for students who have passed honors classes with a B or better, or CP with an A- or better, and department approval.)

This course will study human impact on the environment through examining the topics of aquatics, ecology, populations, energy resources and consumption, pollution, and global change. Students will identify and analyze environmental problems through hands-on investigations both in the classroom and in our local ecosystems. They will apply scientific processes and concepts in order to better understand our natural systems and to critically think about environmental issues and potential solutions.



**SCI11CP2  
SCIENCE (LAB)  
SCI11H**

**MARINE AND COASTAL  
5 credits**

Prerequisites: Passing score in biology and chemistry (Honors contract is available for students who have passed honors classes with a B or better, or CP with an A- or better, and department approval.)

This course is designed for students who have an interest in the marine world and its interactions with the coast. Students will learn about topics in the four main branches of oceanography: geological, chemical, physical, and biological. Through discussions, readings, and hands-on activities in and out of the classroom, students will gain perspectives into how the systems of the ocean influence each other and life on land. Topics will include the formation of the ocean, currents, winds, tides, plankton, marine plants, invertebrates, fish, large marine vertebrates, and human impact.

**SCI33CP2  
IN BIOCHEMISTRY (LAB)  
SCI33H**

**CONTEMPORARY TOPICS  
5 credits**

Prerequisites: Passing score in biology and chemistry (Honors contract is available for students who have passed honors classes with a B or better, or CP with an A- or better, and department approval.)

In this course, students will apply foundational knowledge of biology and chemistry to the molecular structure of foods and many of the methods used in food preparation. Course topics include biological macromolecules, acids and bases, energy and phase transformations, enzymes and microbes, and materials science. Students will conduct hands-on lab activities that demonstrate the physical properties and chemical processes at work every day in the molecules we cook and consume.

**SST04CP2  
SCIENCE/CRIMINOLOGY CP2 (2.5 Lab)**

**FORENSIC  
5 credits SST04H**

Prerequisites: Chemistry with a C average or better. Open to Juniors and Seniors.

Dual listing as Science and Social Studies Department (2.5 credits from each department). Please note that this course does not count towards the core requirement in social studies.

In this course, offered jointly by the Social Studies and Science Departments, students will explore criminal justice theories and examine forensic science. Utilizing statistics, characteristics of criminal behavior, chemistry, biology and other scientific fields of study, students will apply the core knowledge of the course to actual criminal cases. Students will become skilled at such analytical methods as securing crime scenes, collecting and preserving evidence, fingerprinting and DNA analysis. This course will cover the various biological, psychological and sociological

aspects of crime in U.S. society. Students will be provided with an ability to perform basic forensic techniques and use appropriate scientific procedures that follow established guidelines for admissible evidence. Students will document results and draw conclusions employing criminology and forensic terminology. Students will explore such topics as juvenile justice and capital punishment. Within a lab setting, students will gain hands-on experience in the use of current investigative techniques. Participating in a mock crime scene and trial will be the capstone project for the course.

An Honors contract is available with approval of the teachers. Students who have taken Criminal Justice are also eligible to enroll.

**NOT OFFERED IN 2024-2025**

**SCI13H  
(LAB)**

**HONORS SUSTAINABILITY  
5 credits**

Prerequisites: Honors Biology and Chemistry with a B or better or CP Biology and Chemistry with an A- or better and departmental approval.

Scholars work individually or in groups to complete a project which addresses an environmental sustainability issue and fills a need in the school district or greater community. This class places the power and responsibility for creating community-based solutions to environmental challenges in the hands of the students. While implementing their solutions, students learn project management skills such as defining goals, determining budgets and time-lines, problem solving, and continual improvement processes. Scholars often collaborate with a community partner as well as their teacher to identify issues and work to make positive change happen. Scholars are given an extremely high level of responsibility and require a great amount of self-discipline.

**NOT OFFERED IN 2024-2025**

**SCI24CP2  
(LAB)  
SCI24H**

**SCIENCE AND ETHICS  
5 credits**

Prerequisites: Passing score in biology and chemistry. Open to juniors and seniors. (Honors contract is available for students who have passed honors classes with a B- or better, or CP with an A- or better, and department approval.)

In this course, offered jointly by the Science and English departments, students will explore the ethical considerations of current scientific issues. Through readings, discussion, and laboratory activities, students will examine the foundational science of issues such as genetic testing, genetic editing, vaccines, life extension, cloning, facial recognition technology, artificial intelligence, climate change, and terraforming. After learning about different ethical theories and how to engage in reasoned argument, students will analyze and discuss various perspectives on these real-world scientific dilemmas. Students will also have opportunities to explore areas of particular interest to them.

Students will build their scientific knowledge, laboratory skills, argumentative writing skills, and critical and creative thinking skills, thereby positioning themselves to be better scientists and scientifically literate citizens. Enthusiastic participation is essential for any student taking this course.

[Please note that this course counts towards the core requirement in science. It does not count towards the core requirement in English.

## SOCIAL STUDIES

GRADE	HONORS/AP	COLLEGE PREP 2	
Grade 9	Honors World History 9	World History 9 CP2	World History 9 CP1
Grade 10	Honors American History OR AP US History by Department Approval*	American History CP2	
Grade 11	Honors America in the Modern World OR AP U.S. History AP World History AP U.S. Government	America in the Modern World CP2	
Grade 12	Honors American Government AND A Social Studies Elective OR AP U.S. History AP World History AP U.S. Government AP Psychology (Seniors Only)	American Government AND A Social Studies Elective	

\*Students who wish to take AP US History in grade 10 must speak to their 9th grade honors history teacher for an application. Students will complete an in school writing sample during R block. Department approval will depend on grade in 9th grade honors history, writing sample and ability to independently learn material.

**Electives:** (2.5 credits each)

- Criminal Justice
- Law & Individual Rights in the US

- Psychology II
- Student Leadership
- Current Events
- Forensic Science/Criminology

All elective courses are available for honors credit through the completion of an honors contract approved by the course teacher and with the recommendation of the student's most recent Social Studies teacher.

## **NINTH GRADE**

Freshman Social Studies classes will focus on the development of empires through World War I. It will help students to develop an understanding of the forces of history that led to the dominance of Europe, the development of Asia, and the causes of global conflict. Class placement is contingent upon the recommendation of their eighth grade Social Studies teacher

### **SST15CP1**

### **WORLD HISTORY 9 CP1**

**5 Credits**

Designed for students with average reading and writing skills.

This course will examine world history from the development of empires through World War I. It will help students to develop an understanding of the forces of history that led to the dominance of Europe, the development of Asia, and the causes of global conflict. Topics studied will include the Renaissance & Reformation, the development of nationalism, the industrial revolution and WWI.

### **SST15CP2**

### **WORLD HISTORY 9 CP2**

**5 Credits**

Designed for students with above-average reading and writing skills

This course will examine world history from the development of empires through World War I. It will help students to develop an understanding of the forces of history that led to the dominance of Europe, the development of Asia, and the causes of global conflict. Topics studied will include the Renaissance & Reformation, the development of nationalism, the industrial revolution and WWI.

### **SST15H HISTORY 9**

### **HONORS WORLD 5 Credits**

Designed for students with high reading speed and comprehension skills as well as above average writing ability

This course will examine world history from the development of empires through World War I. It will help students to develop an understanding of the forces of history that led to the dominance of Europe, the development of Asia, and the causes of global conflict. Topics studied will

include the Renaissance & Reformation, the development of nationalism, the industrial revolution and WWI.

## **TENTH GRADE**

The sophomore Social Studies program provides students with an overview of American History. The course will begin with the development of the Constitution and move on to the actions that drove the country toward the Civil War. Students will then continue on with westward expansion, industrialization, American imperialism, and the Cold War. Students take courses at appropriate learning levels in accord with prior achievement and the ninth grade teacher's recommendation.

### **SST50CP2**

### **AMERICAN HISTORY CP2**

**5 Credits**

Designed for students with above average reading and writing skills

The 10th grade history class will introduce students to the broad themes in the history of America, including the foundations of our government, immigration, race and ethnicity, social and political reform, major conflicts, contested meanings of freedom, cycles of prosperity and recession, popular culture, modernity, and rights movements. The class will start with a review of the Constitution and end at the start of WWII. Students will also develop ways of thinking historically through critical analysis of primary and secondary sources; identifying and evaluating perspectives in history; and formulating and defending an educated opinion on historical and modern events.

### **SST50H HONORS**

### **AMERICAN HISTORY**

**5 Credits**

Prerequisite: A grade of A-or above in Modern World or a B or above in Honors Modern World and the recommendation of the Modern World teacher. Designed for those students with strong reading comprehension and writing skills.

The 10th grade history class will introduce students to the broad themes in the history of America, including the foundations of our government, immigration, race and ethnicity, social and political reform, major conflicts, contested meanings of freedom, cycles of prosperity and recession, popular culture, modernity, and rights movements. The class will start with a review of the Constitution and end at the start of WWII. Students will also develop ways of thinking historically through critical analysis of primary and secondary sources; identifying and evaluating perspectives in history; and formulating and defending an educated opinion on historical and modern events.

## **ELEVENTH GRADE**

Eleventh grade students must take a 5 or 7 credit class. Students can opt for America in the Modern World which can be taken at the college prep or honors level. Students with a 90 or

above in honors American History and teacher recommendation may opt to take an Advanced Placement class. Juniors can take AP US History, AP World History or AP U.S. Government. AP Psychology is only open to grade 12 students.

### **SST52CP2**

### **AMERICAN HISTORY IN**

### **THE MODERN WORLD CP2 5 Credits**

Designed for students with above average reading and writing skills

America in the Modern World is a blend of modern American and World history that picks up where the 9th and 10th grade history classes left off. Students start with the Great Depression and the rise of fascism in Europe and follow the path of history all the way up until current day. Topic will include: WWII, the Cold War, civil rights movement around the world, genocide and terrorism.

### **SST52H**

### **AMERICAN HISTORY IN**

### **THE MODERN WORLD HONORS 5 Credits**

Prerequisite: A grade of A-or above in American History or a B or above in Honors American History and the recommendation of the American History teacher. Designed for those students with strong reading comprehension and writing skills.

America in the Modern World Honors is a blend of modern American and World history that picks up where the 9th and 10th grade history classes left off. Students start with the Great Depression and the rise of fascism in Europe and follow the path of history all the way up until current day. Topic will include: WWII, the Cold War, civil rights movement around the world, genocide and terrorism. Students will also develop ways of thinking historically through critical analysis of primary and secondary sources; identifying and evaluating perspectives in history; and formulating and defending an educated opinion on historical and modern events.

## **TWELFTH GRADE**

### **SST02CP2**

### **AMERICAN GOVERNMENT**

**2.5 Credits**

### **SST02H**

Prerequisite: 11th and 12th graders only

The goal of this course is to make students aware of the general functioning of government at the local, state and national levels and how students may assume an active role as citizens. Responsible citizenship and decision –making processes will be emphasized.

## **ADVANCED PLACEMENT CLASSES**

**SST17AP**  
**U.S. HISTORY**

**ADVANCED PLACEMENT**  
**5 Credits**

Prerequisite: A- average in the latest honors Social Studies course and approval by the Social Studies Department faculty.

This course is designed as a college level course to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials of United States History. Students will be prepared to enter college prepared for intermediate and advanced college courses. Students will learn to assess historical materials — their relevance to a given interpretive problem, their reliability and their importance — and to weigh the evidence and interpretations presented in historical scholarship. This course will develop the skills necessary to arrive at conclusions on the basis of an informal judgment and to present reasons and evidence clearly and persuasively in essay format. Students are required to take the Advanced Placement U.S. History examination.

**SST21AP**                      **ADVANCED PLACEMENT PSYCHOLOGY**  
**Credits**

**5**

Prerequisite: A- average in the latest honors Social Studies course and approval by the Social Studies Department faculty. AP Psychology is only open to 12th grade students.

The Advanced Placement course in Psychology is designed similarly to an introduction to psychology course in college. The purpose of the course is to introduce students to the systematic and scientific study of human behavior. The topics covered will be similar to those in an introductory college class: social psychology, history, careers, theories, and research methods, biological bases of behavior, sensation/perception, consciousness, learning, memory, cognition, development, personality, stress, disorders and treatment. The course will include nightly rigorous reading assignments accompanied by critical thinking questions. Numerous assessment methods will be used, including vocabulary quizzes, unit exams, research assignments and free-response writing questions. Various class demonstrations and activities will also be incorporated to encourage student participation and application of psychological concepts in the “real world.”

**SST22AP**  
**WORLD HISTORY**

**ADVANCED PLACEMENT**  
**5 Credits**

Prerequisite: A grade of A- or higher in your latest social studies course and the recommendation of the department.

If you are interested in exploring the foundation and development of the world we live in today, enjoy reading and are a good writer, AP World History may be the course for you. The course is a college level examination of major concepts in world history from approximately 1200 CE to the present that helps students develop historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation

throughout the course. AP World History encompasses the history, politics, and cultures of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

**SST19AP  
GOVERNMENT**

**5 Credits**

**ADVANCED PLACEMENT**

Prerequisite: A- average in the latest honors Social Studies course and approval by the Social Studies Department faculty. AP Government is only open to 11th & 12th grade students.

Advanced Placement US Government and Politics provides a college level, nonpartisan introduction to key political concepts, institutions, policies, and behaviors that characterize the constitutional system and political culture of the United States. More specifically, we will learn about institutions such as Congress, the presidency, the bureaucracy, and the courts, public opinion and the media, political participation and voting behavior, political parties, interest groups, civil liberties and rights, and policy making. To explore these subjects, we will have debates, seminars, lecture and discussion, cooperative learning activities, and independent research. By the end of the course, you will be able to analyze current and historical political events like a political scientist, develop accurate, well-reasoned, thoughtful arguments that acknowledge and grapple with alternative political perspectives, and participate meaningfully and thoughtfully in discussions and debates that are currently shaping American politics and society.

**SOCIAL STUDIES ELECTIVES**

**SST03CP2  
Credits  
SST03H**

**CRIMINAL JUSTICE 2.5**

Prerequisite: 10th, 11th and 12th graders only

In this course, students will examine the social science of criminology. The course will incorporate materials for studying crime, criminals, criminal behavior, and corrections. Utilizing criminal justice statistics, current conceptual theories, and a wide array of primary sources, students will explore the history of criminology and how criminologists influence the world around us. Students will evaluate social patterns to identify trends of crime in the United States. After developing the framework of criminology, the course will include topics related to the impact of crime on victims and methods for applying statistical data in crime prevention, and ways to prevent crime. Ultimately, students will identify the forces that cause crime and develop a model for applying criminological theories to modern day issues.

**SST05CP2  
EVENTS/CURRENT ISSUES  
SST05H**

**CURRENT  
2.5 Credits**

Prerequisite: 10th, 11th and 12th graders only



Current Events/Current Issues is a course structured to give the student an understanding of the events and issues (primarily political, social, and economic) that are having an impact on the world in which we live. In addition to studying current events and current issues, students will also study the context (primarily geography, individuals, IGOs, and NGOs) of the events and issues that are shaping the world we live in.

**SST28CP2**

**STUDENT LEADERSHIP  
2.5 Credits**

**SST28H**

Prerequisite: 10th, 11th and 12th graders only

This course is designed to answer the question, "What makes someone a leader?" The class will provide students with the opportunity to study, practice and develop leadership skills. These skills will include decision making, problem-solving techniques, organizational and time management skills and understanding the need for social and civic responsibility. Students will apply these skills in dealing with peers, school administration and the community while also learning about famous individuals throughout history who have successfully practiced these leadership skills. The class is designed as a hands-on, active learning approach to leadership. Past student projects have included the creation of the 40% club, sponsorship of a bone marrow drive and the development of a prototype for an app for student use.

**SST18CP2  
RIGHTS IN THE US  
SST18H**

**LAW AND INDIVIDUAL  
2.5 Credits**

In this course, students will explore the American legal system. Using the U.S. Constitution as a foundation, students will investigate landmark U.S. Supreme Court cases related to subjects found in the Bill of Rights. Coursework will emphasize individual rights and the influence laws have on our world today. Students will gain a greater understanding of the inner workings of our legal system through a wide array of activities and lessons. We will debate Supreme Court decisions, experience mock trial settings, and discuss the scope and meaning of the Constitution as it affects our daily lives. Topics for the course include gun rights/gun control, religion freedoms, questions of free speech, civil rights, and other matters facing the United States in current times. The course includes a Capstone project, the Government Action Plan (GAP). We will work collaboratively to define a problem, propose, build and implement a solution strategy, and communicate the results to our broader community. Students may take this course for College Prep, or Honors Credit.

**SST13CP2  
Credits  
SST13H**

**PSYCHOLOGY II    2.5**

The objective of this course is to offer students greater insight and knowledge into the various areas of abnormal psychology including: addiction, stress, depression, schizophrenia, anxiety, organic and behavior disorders.

**SST04CP2**

**SCIENCE/CRIMINOLOGY CP2 (2.5 Lab)**

**FORENSIC**

**5 credits SST04H**

Prerequisites: Chemistry with a C average or better. Open to Juniors and Seniors.

Dual listing as Science and Social Studies Department (2.5 credits from each department).

Please note that this course does not count towards the core requirement in social studies.

In this course, offered jointly by the Social Studies and Science Departments, students will explore criminal justice theories and examine forensic science. Utilizing statistics, characteristics of criminal behavior, chemistry, biology and other scientific fields of study, students will apply the core knowledge of the course to actual criminal cases. Students will become skilled at such analytical methods as securing crime scenes, collecting and preserving evidence, fingerprinting and DNA analysis. This course will cover the various biological, psychological and sociological aspects of crime in U.S. society. Students will be provided with an ability to perform basic forensic techniques and use appropriate scientific procedures that follow established guidelines for admissible evidence. Students will document results and draw conclusions employing criminology and forensic terminology. Students will explore such topics as juvenile justice and capital punishment. Within a lab setting, students will gain hands-on experience in the use of current investigative techniques. Participating in a mock crime scene and trial will be the capstone project for the course.

An Honors contract is available with approval of the teachers. Students who have taken Criminal Justice are also eligible to enroll.

**NOT OFFERED 2024-2025**

**SST12CP2**

**PSYCHOLOGY I**

**2.5 Credits**

**SST12H**

A survey of psychology through its theories and theorists. The course features studies of the history of psychology, psychological research methods, the brain, body and behavior, state of consciousness, dream theories and human development. Students will be required to prepare a major project or paper as a part of the course.

**NOT OFFERED 2024-2025**

**SST06CP2**

**OURSELVES**

**SST06H**

**FACING HISTORY AND**

**2.5 Credits**

Students will examine the roots of hate and acts of hatred in an attempt to understand history not as a series of inevitable events, but as a sequence of events resulting from individual actions and decisions through time. Students will examine their roles and responsibilities as American and global citizens and the potential for the wide reaching impact that every individual has daily. These themes will be examined through a series of readings, videos, activities and reflections. Activities will incorporate technology, include guest speakers and enable students to demonstrate expertise through a wide array of projects. The foundation of the course will be historical case studies of the genocides in Armenia, Cambodia, Bosnia, Rwanda, Sudan, and the Holocaust. By examining acts of genocide, students will have the opportunity to reflect not only upon the universality of racism and social injustice, but also upon the importance of global awareness. Students may take the course for honors credit.

**NOT OFFERED 2024-2025**

**SST08CP2  
STUDIES  
SST08H**

**MIDDLE EASTERN  
2.5 Credits**

This course will explore the history, culture, politics, and economics of the Middle East from 1850 to the present. Students will explore several historical topics through primary and secondary resources. Topics include: the role of religion in the region's history; the role of oil and other economic issues in the development of the modern middle-east; Pan-Arab movements, foreign involvement in the region since the decline of the Ottoman Empire; the role of the Zionist movement and the formation of Israel; the wars and conflicts in the region since 1947; and recent developments in the region.

**NOT OFFERED 2024-2025**

**SST10CP2  
Credits  
SST10H**

**MODERN EUROPE 2.5**

This course will focus on the social, economic, political, and intellectual developments in Europe from the beginning of the Cold War to the present day. Students will discuss practical questions about the forces that have shaped Europe since the end of World War II. Particular attention will be paid to the disintegration of the Soviet Union, efforts to build a European Union, and the role of modern European nations in a rapidly changing world. In addition, students will explore Europe's quest for international security in the emergence of the nuclear age. While investigating broader issues, the course will also draw attention to localized European issues, including civil war in Bosnia, the troubles in Northern Ireland, and other events that have impacted Europe since 1945.

**NOT OFFERED 2024-2025**

**SST24CP2  
RELATIONS  
SST24H**

**INTERNATIONAL  
2.5 Credits**

The major goal of this course is to introduce the student to the way in which nations and non-government entities operate, compete, and cooperate with each other. This goal will be accomplished by looking at international laws, international organizations, multinational corporations, non-governmental organizations, and threats to international security. A significant amount of time will be dedicated to the foreign policy of the United States with regard to other countries (Russia, China, Middle East and North Korea) and the foreign policies between other countries (Pakistan and India).

**NOT OFFERED 2024-2025**

**SST27CP2**

**SPECIAL PROJECTS US**

**HISTORY 2.5 Credits**

**SST27H**

For students who want to incorporate more independent study and technology into their learning experience, this interdisciplinary course will help them to achieve their goal. This course is designed to look at various historic events, philosophies, and trends and create presentations that will allow others to both understand what happened and why these events are important. Projects may include, but are not limited to, the rise of Darwinism, the influenza epidemic of 1918 and its effects on Ipswich and the North Shore, the validity of Ipswich's claim to be the "Birthplace of American Independence, and other topics of interest to the class. The course will focus on the research process and will create projects that will incorporate video, audio, Internet/web, podcast and other relevant and appropriate technologies.

## STUDENT SUPPORT SERVICES

The Student Support Services Department comprises highly qualified staff dedicated to educating and including students with learning differences found eligible for services under Massachusetts and federal regulations as outlined by IDEA 2004. In all programs, students access services as determined appropriate and necessary by the Team and outlined in the Individualized Education Program (IEP), working toward a successful transition to appropriate post-secondary opportunities.

The mission of the Department is to provide a safe, supportive, and equitable learning environment that meets the individual student's educational needs in the least restrictive environment. In addition, staff provides individualized support and assistance to students with learning differences by focusing on students' unique strengths as they become competent, self-determined, and curious learners. By heightening students' perspective, introspective, and critical thinking abilities, their self-advocacy, and independence will also increase.

### **Inclusion Support:**

Co-Teaching at Ipswich High School is an instructional delivery approach in which two teachers, a General and Special Education Teacher, share responsibility for planning, delivering, and evaluating instruction for a diverse group of learners. General and Special Educators work in a dynamic and organized fashion that involves the cooperative teaching of academically, emotionally, and socially mixed groups of students in inclusion settings (e.g., English 9, Algebra 1, Biology, etc). The goal is to decrease pulling out Special Education students from their classroom setting while increasing their ability to access their curriculum with peers independently.

### **Small Group Classes (Math, English, Applied Strategic Learning):**

Enrollment in the following classes is determined by the student's IEP.

### **Potential Course Sequence**

<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<ul style="list-style-type: none"><li>● Integrated Math I</li><li>● English 9</li><li>● Applied Strategic Learning I</li></ul>	<ul style="list-style-type: none"><li>● Integrated Math II</li><li>● English 10</li><li>● Applied Strategic Learning I/II</li></ul>	<ul style="list-style-type: none"><li>● Integrated Math III</li><li>● English 11</li><li>● Applied Strategic Learning II/III</li></ul>	<ul style="list-style-type: none"><li>● Integrated Math IV</li><li>● English 12</li><li>● Applied Strategic Learning III/IV</li></ul>

### **SAIL/YACHT Programming:**

Specialized programming is also available to students through the SAIL (Students Achieving Independent Living) program and YACHT Academy (Young Adult Career/Community Home

Management Training), which provide more intense academic support to students with cognitive and transition programming needs. Students enrolled in these programs will take a combination of small group, self-contained Special Education classes (e.g., English, STEM, and Humanities) as well as supported inclusion courses. Opportunities for community awareness, independent living, and/or vocational training courses.

## TECHNOLOGY & ENGINEERING

### **TEC03CP2 FUTURE TEC03H**

### **ENGINEERING THE 2.5 Credits**

Open to Grades 9 & 10

Engineering the Future is a project based course that will help students develop a better understanding of technology and engineering. Students will develop their ability to use the engineering design process in solving technological challenges and have the opportunity to use modern technology and 3D printing in developing solutions. Students will understand how advances in technology affect human society and the complementary relationship between science, technology and engineering. Past projects include: building a better gumball machine, making steamboats, building redesign, frame construction, laser cutting, and circuit design.

### **TEC01CP2 TECHNOLOGY I TEC01H**

### **DRAFTING & DESIGN 2.5 Credits**

Open to all grades

This is an introductory course which teaches design fundamentals and skills for planning and building residential structures. The class will use AutoCAD, a professional, computer-aided drafting (CAD) system and Google SketchUp to create plans for a single family home. Students will be presented with the challenge of designing and modeling a home within given criteria and constraints. Their solution will be presented to their peers and visiting professional architects. Drafting and design offers many career opportunities which will be explored through site visits and guest lecturers.

### **TEC02CP2 TECHNOLOGY II TEC02H**

### **DRAFTING & DESIGN 2.5 Credits**

Prerequisite: Drafting & Design Technology (B or above)

Students will use their design experience to develop a professional proposal for commercial or mixed use development in Ipswich. The proposal will include CAD floor plans, 3D models and development of a narrative to sell their idea.

### **TEC04CP2 TECHNOLOGY II (LAB) TEC04H**

### **ENGINEERING 5 Credits**

Prerequisite: Grades 10, 11 & 12 Successful completion of this course may be applied to the science graduation requirement.

In Engineering Technology II, students will use the Engineering Design Process to solve a series of complex design challenges requiring advanced materials and methods. Employing processes used by engineers, the students learn teamwork, analysis techniques, communication skills and the importance of completing a task on time within given criteria and constraints. Students will be required to complete engineering presentations on their work as well as current topics in science and technology.

**TEC05CP2  
(LAB)**

**ENGINEERING PROJECTS  
5 Credits**

**TEC05H**

Prerequisite: Grades 11 and 12. Successful completion of this course may be applied to the science graduation requirement.

Engineering Projects students will participate in the Student Racing Challenge which is an engineering project-based curriculum and annual competition where you will practice as a professional in careers with a strong emphasis on science, technology, engineering and mathematics (STEM). Ten80 Student Racing Challenge teams are mini-race teams that compete using 1:10 scale electric RC cars. Student teams earn points between October and May and points leaders compete in the National Finals held in the spring. Students enrolled in the class are expected to participate in all team events including weekend fundraising and travel.

**TEC47CP2  
TECHNOLOGY  
TEC47H**

**CNC MANUFACTURING  
2.5 Credits**

Grades 11 and 12

The CNC Manufacturing Technology course introduces students to the fundamentals of CNC (computer numerical control) machining. Students learn the fundamentals of CNC machining by working with the EMCO Concept Mill 55 to accurately machine a series of increasingly complex parts. The course will also introduce students to the basic elements of CAD (computer aided design) and CAM (computer aided manufacturing) to create files that can be used to produce CNC parts. Students who successfully complete the program will receive a Siemens Lifelong Educational Advantage Program (LEAP) certification.

**TEC06CP2**

**ROBOTICS I (LAB)  
2.5 Credits**

**TEC06H**

This course introduces the principles of machine design (robotics) and the roles that robots play in our lives. Students will increase their understanding about what makes a robot a robot, how robots sense, think and act as well as the uses and limitations of working robots. Students will better understand the roles of project management, mechanical electronics and process language computer programming in the open-ended design and development of machines to



accomplish different tasks. The class will learn basic robotics using the VEX EDR Robotics Systems and remote as well as open loop and closed loop autonomous control system programming in Graphical C and Robot C.

### **TEC07CP2**

### **ROBOTICS II (LAB) 2.5**

#### **Credits**

#### **TEC07H**

Prerequisite: B or above in Algebra I, B or above in Robotics I or computer programming and teacher approval. Grades 10, 11 & 12

In this course, students will learn advanced robotics/machine design concepts and techniques with a focus on programming and electronics using task-oriented robots controlled by Arduino microcontrollers, Raspberry-Pi microcomputers, or similar products. Arduino and Raspberry-Pi products can be used to control DC motors, servo motors, lights and buzzers, and receive input from numerous other sensors and cameras. The course will start with guided lessons on integrating robotics systems and coding using object-oriented programming in C/C++ in the Eclipse IDE and Python, Java or C++ using the Raspbian OS and Eclipse or Algo IDE, Putty SSH Terminal emulator, or equivalent set-up. Students will learn to use sensors to adapt their robot to its environment by reading inputs and controlling outputs. There will be a final hands-on design project, where students will specify, design, build, and program an Autonomous or Remotely Controlled robot or other robotic device, such as a robot arm. Students will be expected to keep engineering notebooks, create presentations on their work, and write reflections on their designs. Current topics in the field of robotics will be reviewed and discussed through assigned readings and viewings of TED talks.

### **TEC26CP2**

### **3D Printing 2.5 Credits**

#### **TEC26H**

Open to all grades

3D Printing is a tool that allows people to create new things, limited only by imagination. 3D printing and modeling projects empower students to take chances and make mistakes thereby acquiring the problem-solving skills and confidence that will convince them to keep trying until their designs succeed. In this course, students will explore the 3D printing additive manufacturing process in which an object is built over time by stacking layers of material directly on top of each other. These layers fuse together to assemblies. This course is designed around a process or task based approach to training. The course will emphasize the processes and procedures you follow to complete a particular task.

Lab exercises will be used to give students the opportunity to apply and practice the material covered during the demonstration portion of the course. Exercises are designed to represent typical engineering design and modeling situations while being modest enough for beginning students to complete during class time.

**NOT OFFERED IN 2024-2025**

**TEC08CP2**  
**ESSENTIALS**  
**TEC08H**

**SOLIDWORKS**  
**2.5 Credits**

The goal of this course is to teach students how to use the Solidworks design automation software to build parametric models of parts and assemblies and how to make simple drawings of those parts and

**NOT OFFERED IN 2024-2025**

**TEC09CP2**  
**Credits**  
**TEC09H**

**FIRST ROBOTICS 4**

Students may take this class every year.

First Robotics Competition (FRC) combines the excitement of sport with the rigors of science and technology. Under strict rules, limited resources and time limits, teams are challenged to raise funds, design a team brand, and hone teamwork skills as the team programs and build a robot to perform prescribed tasks against a field of competitors. Students who elect FRC will be required to participate in 6 weekend build sessions and at least two regional competitions during March and April.

**NOT OFFERED IN 2024-2025**

**TEC10CP2**  
**TEC10H**

**THE BEAT 2.5 Credits**

The Basics of Engineering Audio Technology (BEAT) is a new, hands-on course in which students learn about, explore, and build technological devices associated with music and audio production. Students will have the opportunity to experiment with, design, and create items such as instruments, amplifiers, speakers, headphones, and microphones. The class is co-taught by members of the engineering and music faculties, but there is no prior knowledge or coursework required. Course topics will include acoustics, objective and subjective analysis of sound and music (both analog and digital), electronic engineering project-based learning, and big picture questions about the role of sound and music in society. This course is closely aligned with the STEAM pathway, and provides a wealth of practical and creative experience that will lead to a deeper understanding of all that is audible.

# VISUAL ART AND DESIGN

The recommended sequence of Visual Art Courses is as follows:

All students should begin with ART01CP2 Art and Design Foundations or ART33CP2 Digital Media & Design Foundations, followed by elective courses which include ART04CP2 Drawing, ART02CP2 Printmaking, ART03CP2 Ceramics I, ART13CP2 Ceramics II, ART05CP2 Painting, ART06CP2 Graphic Design I, ART06CP2 Graphic Design II, ART11CP2 Digital Photography I, ART12CP2 Digital Photography II, ART08CP2 Studio Art, and ART34CP2 Introduction to Video Production.

The serious Visual Art student is advised to review the Pathway in Fine Art and Media Art. Course selection should begin with ART01H Art & Design Foundations or ART01H Digital Media & Design Foundations ART33H, followed by ART04H Drawing, and then followed by electives leading to Studio Art and Advanced Portfolio.

Unless otherwise designated, all courses are offered at the College Prep Level 2. However, all courses may be taken for Honors credit.

## **ART01CP2 FOUNDATIONS ART01H**

Open to all students.

## **ART AND DESIGN 2.5 Credits**

This course is designed as an introduction to the process, language and materials used in the making of visual art and design. Emphasis will be placed on creativity, self-expression, and visual communication as well as acquiring proficiency skills in basic drawing, painting, printmaking, and sculpture. Each unit incorporates the building blocks of visual art being the Elements of Art and Principles of Design with the opportunity to create personally meaningful artwork that explores creative problem solving, out of the box thinking, and originality.

## **ART33CP2 FOUNDATIONS ART33H**

Open to all students.

## **DIGITAL ART & DESIGN 2.5 Credits**

Focusing on the elements and principles of art and design, students will be introduced to foundational digital art and design tools. In this course, students will develop a formal language for speaking about their own creative process, their peers' work and the famous work of a variety of historic and contemporary artists in both traditional and digital mediums. Students will receive an introduction to Adobe Photoshop, Adobe Illustrator, iMacs and working with drawing tablets.

**ART02CP2****PRINTMAKING****2.5****Credits****ART02H**

Prerequisite: Art and Design Foundations or Digital Art & Design Foundations

This course is designed to enhance the art of experimentation! Students will be introduced to the printing press and several printing methods that include both additive and reductive processes such as monotype, collagraph, intaglio, relief, and screen printing. An emphasis will be placed on skill building activities that lead towards experimentation and the production of self realized series and additions.

**ART03CP2****CERAMICS I 2.5 Credits****ART03H**

Prerequisite: Art and Design Foundations or Digital Art & Design Foundations

This course will provide students with the fundamental skills and techniques necessary to create hand built ceramic artwork. This course will have an emphasis on hand building techniques that include coil, pinch, and slab methods. Students will explore clay as an art medium while discovering its traditional uses and applications throughout history and how it has evolved as a contemporary artform. Students will be urged to apply creativity and individuality while making personally designed functional and sculptural pieces throughout the course. Students will also be introduced to various high fire glazing and finishing techniques to enhance their ceramic work.

**ART13CP2****CERAMICS II 2.5 Credits****ART13H**

Prerequisite: Ceramics I

This course will have an emphasis on advanced hand building techniques that include coil, pinch, and slab methods to explore conceptually complex themes. This course will expand upon the students' previously acquired knowledge of ceramics as a medium, to explore its complex historical and contemporary applications as an artform. Students will create sculptural, functional, and decorative works that explore personally meaningful concepts and self expression. Opportunities on the potters wheel will be available for study as a bridge into the world of pottery. Students will also be introduced to various alternative high fire glazing techniques to enhance their ceramic work.

**ART14CP2****CERAMICS III****2.5****Credits****ART14H**

Prerequisite: Ceramics II

This course is designed to provide the advanced ceramics student the opportunity to independently create a cohesive body of ceramic work that revolves around a central, personally developed, inquiry question. Students will determine their focus, plan for, create, refine, and reflect upon work that displays their advanced technical competency with ceramic materials, techniques, and processes. Students will have the opportunity to research and explore alternative ceramic and glazing techniques while being encouraged to utilize the ceramics studio in an independent manner. Group critiques will be implemented throughout the course to provide artists with the feedback necessary to refine and complete works for exhibition.

**ART04CP2**

**DRAWING 2.5 Credits**

**ART04H**

Prerequisite: Art and Design Foundations or Digital Art & Design Foundations

This course is designed to expand the student's knowledge of the language and materials of drawing, as well as explore the various subject matter used throughout the history of artmaking. Students will experiment with a variety of materials including pencil, colored pencil, charcoal, pen and ink, pastels, and non-traditional drawing media. The class will be introduced to various sighting methods designed to simplify the drawing process and make the exercises attainable for all students. All assignments provide personal choice and challenges that will define a student's individual drawing style and form of expression.

**ART05CP2**

**PAINTING 2.5 Credits**

**ART05H**

Prerequisite: Art and Design Foundations or Digital Art & Design Foundations

This course uses a survey of art movements and historical subject matter. Students will explore a variety of techniques and approaches to the art of applying paint and complete a collection of paintings using various stylistic methods, subject matters, painting mediums, and surfaces. The painting mediums available for study include oil paint, acrylic paint, gouache, watercolor, and alternative painting mediums.

**ART06CP2**

**GRAPHIC DESIGN I 2.5**

**Credits**

**ART06H**

Prerequisite: Digital Art & Design Foundations

Students will begin to develop a visual sensitivity to and awareness of the world of commercial design, as well as explore how visual imagery is used to communicate meaning and shape the perceptions of the viewer. We will consider the fields of graphic design, illustration, and advertising, and the roles they play in society. Students will utilize both traditional methods and industry-standard computer software such as Adobe Photoshop and Illustrator. Subject matter for assignments will be drawn from discussion of issues relating to the media, advertising, and current events.

**ART22CP2****GRAPHIC DESIGN II****2.5 Credits****ART22/H**

Prerequisite: Graphic Design I

In this class students will begin to analyze the marketing mind, advertising, and communication design. Students will use Adobe Photoshop, Illustrator, and InDesign interchangeably as they see fit for their needs in each project. Market research as well as critiques will be a regular aspect of this class as we discuss best practices for in-studio work, engaging with clients, printing and production, as well as talking about aesthetic choices working towards design focused careers.

**ART08CP2****STUDIO ART 2.5 Credits****ART08H**

Prerequisite: Offered Spring Semester of Junior Year. Art and Design Foundations or Digital Media Foundations and a second Art elective and/or permission of the instructor

This is a course for the independent-minded art student who wishes to pursue their study at the level 3 of any medium. Class projects will encompass work in all media, with most decisions regarding subject matter and materials left for the student to determine. An important focus of this class will be on experimentation and the process of developing ideas. Students will be expected to keep a record of their ideas, thoughts, and observations in a journal as well as participate in open critiques with their classmates.

**ART09CP2****ADVANCED PORTFOLIO****2.5 Credits****ART09H**

Prerequisite: Either Foundations course, at least 2 other electives, as well as permission of instructor.

The Portfolio student will develop a comprehensive body of artwork that reflects the exploration of a personally developed topic while displaying technical competency in a wide range of media. Students enrolled in this class may choose to create a portfolio for part of an art school application or supplement to a liberal arts program. The course curriculum includes the self-driven development of a cohesive body of work, the implementation of artistic process, group critiques, virtual visits from admission counselors, and opportunities to exhibit their artwork. Exhibiting skills will be utilized in a Portfolio show that will highlight a group effort to create refined and conceptual artworks.

**ART11CP2****DIGITAL PHOTOGRAPHY I****2.5 Credits****ART11H**

Open to all students

This course is an introduction to the practice of digital photography. Students learn the basics of shooting with a digital camera, including aperture, shutter speed, lighting, and composition. Adobe Lightroom is used to discuss image editing and its relevance to the practice of photography. Emphasis is also placed on exploring the history of photography, understanding its technical development and impact on society.

## **ART12CP2**

## **DIGITAL PHOTOGRAPHY II 2.5 Credits**

### **ART12H**

Prerequisite: Prerequisite: Art and Design Foundations or Digital Art & Design Foundations, and Digital Photography I

Students having taken Digital Photography I will refine and advance their photography skills, expanding into the use of digital manipulation and introducing some of the more advanced imaging features of Adobe Photoshop. Projects are more conceptual and independent in nature, allowing the student to focus on a particular technique or area of interest. Students will contribute to critiques with their peers and engage in dialogue about the importance of alternative ways to create, manipulate, and display digital photographic images.

## **ART34CP2**

## **MOTION GRAPHICS 2.5**

### **Credits**

### **ART34H**

Prerequisite: Graphics Design I

This course introduces students to the core principles and applications used in time-based art and design. Concepts and skills include storyboarding, frame based animation, sequencing, layering, and sound design. Students will be introduced to basic functions of DSLR cameras as well as professional editing and design software.

## **INDEPENDENT STUDY**

Independent studies are offered for students who have a specific project or area of art that they are interested in focusing on more closely. Independent studies are given to students on a case by case basis with instructor approval, and are created and structured by the student. Work needs to be laid out in advance of the semester, with clear project goals and deadlines. In tandem with regular check-ins, the student will have a clear body of work that they will be asked to present at the end of the semester.

## **ART CLUB**

Art Club is for High School students who would like to be more involved with the visual arts throughout the school year. The club promotes individual and collaborative exchanges of ideas, meeting weekly after school in an open studio. Special workshops offer opportunities to explore subjects such as: learning to T shirt design and printing, stenciling, animation, hand-building ceramic mugs, and deconstruct clothing. Art Club plans the annual the bi-annual New York City Fine Art Field Trip for juniors and seniors.

## WORLD LANGUAGES

Two years of World Language study at the high school level are required for graduation. The course of study must include consecutive study of sequential courses in the same language.

There is an emphasis in all World Language courses on the development of the four essential language skills pertaining to listening, speaking, reading, and writing capabilities. This is accomplished through the study of various thematic units which are not only integral to the students' immediate world but also global in scope relative to areas where French and Spanish are spoken.

To maintain honors level status a student must achieve a B in the previous prerequisite honors course.

In order to upgrade to an honors class a student must do the following:

- Achieve at minimum quarterly, semester and midterm/final exam grades of A-
- Receive a teacher recommendation for the next level course
- Commit to independent study to make up for any deficiencies in background

GRADE	SPANISH	FRENCH
<b>Grade 9</b>	Spanish 1/College Prep 2 Spanish 2/College Prep 2 Honors Spanish 2	French 1/College Prep 2 Honors French 1
<b>Grade 10/11</b>	Spanish 2/College Prep 2 Spanish 3/College Prep 2 Honors Spanish 3	French 2/College Prep 2 Honors French 2



<b>Grade 11/12</b>	Spanish 4/College Prep 2 Honors Spanish 4	French 3/College Prep 2 Honors French 3
<b>Grade 12</b>	Spanish 5/College Prep 2 Advanced Spanish 5 Honors Culture & Society of the Spanish Speaking World	French 4/College Prep 2 Honors French 4

## FRENCH

### **WLA01CP2**

### **FRENCH 1 5 Credits**

An introductory course in French taught at a moderate and appropriately challenging pace designed for learners with average reading, writing and oral communicative skills and study habits. Key concepts pertaining to language learning are addressed through the organized study of various thematic units.

### **WLA01H Credits**

### **HONORS FRENCH 1 5**

An introductory course in French taught at an accelerated and challenging pace for learners who demonstrate above average reading, writing, and oral communicative skills as well as relatively independent study habits. Key concepts pertaining to language learning are addressed through the focused and in depth study of various thematic units.

### **WLA02CP2**

### **FRENCH 2 5 Credits**

This course is a continuation of introductory French with a sustained focus on learning a second language and communicating effectively in the realms of listening, speaking, reading, and writing. A review of previously learned concepts complemented with further study of thematic vocabulary and supporting grammatical structures are combined to establish a basic foundation in the French language.

### **WLA02H Credits**

### **HONORS FRENCH 2 5**

This course is a continuation of introductory French with a continued focus on learning a second language and communicating effectively in the realms of listening, speaking, reading, and

writing. More in depth study of thematic vocabulary and supporting grammatical structures are integrated and applied to the students' linguistic foundation previously established in French I.

### **WLA03CP2**

### **FRENCH 3 5 Credits**

This intermediate level French course is designed for students with a good working knowledge of the French language as developed in the first two years of language study. Students continue to learn vocabulary related to particular themes and pertinent grammatical structures to help them practice and hone their listening, speaking, reading, and writing abilities in French. Cultural comparisons are also incorporated as they pertain to the larger French speaking world.

### **WLA03H Credits**

### **HONORS FRENCH 3 5**

A more advanced French course designed for students with strongly developed foundational linguistic skills as honed during the previous two years of language study. Students continue to examine thematic topics in a highly detailed and thorough manner while learning and applying more complex grammatical structures while also considering different cultural aspects of French and the French speaking world from a global perspective.

### **WLA04CP2**

### **FRENCH 4 5 Credits**

A more advanced French course designed for students who are prepared to further their understanding of the French language and related culture. Topical vocabulary pertaining to given themes and more complicated grammatical structures are introduced in conjunction with a systematic review of previously learned concepts. Students completing this course will be reasonably conversant on a variety of topics in French and will be able to apply their knowledge to some novel situations with relative fluency.

### **WLA04H Credits**

### **HONORS FRENCH 4 5**

This is a considerably advanced French course which continues to build upon the complexities of the French language through the sophisticated examination of relevant linguistic, grammatical, and cultural concepts. Students completing this rigorous course will have developed a high functional ability in French and will be able to apply their knowledge of the language and culture in meaningful ways and in varied and unique situations with a strong degree of fluency.

## **SPANISH**

**WLA06 CP2**  
**Credits**

**SPANISH 1 CP2      5**

A basic, introductory course in Spanish taught at a deliberate pace with continuous structured and scaffolded repetition and review built into all thematic units of study. This course is designed for students with emerging language and study skills who would benefit from a highly organized and gradual approach to language learning. Effective study strategies and methods are actively promoted to assist students in learning the basic components of the Spanish language.

**WLA07CP2**  
**Credits**

**SPANISH 2 CP2      5**

This course, taught at a moderate and appropriately challenging pace, is designed for learners with average reading, writing, and oral communicative skills and study habits. It is a continuation of introductory Spanish with a sustained focus on learning a second language and communicating effectively in the realms of listening, speaking, reading, and writing. A review of previously learned concepts complemented with further study of thematic vocabulary and supporting grammatical structures are combined to establish a basic foundation in the Spanish language.

**WLA07H**

**HONORS SPANISH 2**  
**5 Credits**

This Spanish course is taught at an accelerated and challenging pace for learners who demonstrate above average reading, writing, and oral communication skills as well as relatively independent study habits. It is a continuation of introductory Spanish with a sustained focus on learning a second language and communicating effectively in the realms of listening, speaking, reading, and writing. More in depth study of thematic vocabulary and supporting structures are integrated and applied to the students' linguistic foundation previously established at the introductory level of Spanish.

**WLA08CP2**

**SPANISH 3      5 Credits**

This intermediate level Spanish course is designed for students with a good working knowledge of the Spanish language as developed in the previous years of language study. Students continue to learn vocabulary related to particular themes and pertinent grammatical structures to help them practice and hone their listening, speaking, reading, and writing abilities in Spanish. Cultural comparisons are also incorporated as they pertain to the larger Spanish speaking world.

**WLA08H****HONORS SPANISH 3  
5 Credits**

A more advanced Spanish course designed for students with strongly developed foundational linguistic skills as honed during previous years of language study. Students continue to examine thematic topics in a highly detailed and thorough manner while learning and applying more complex grammatical structures while also considering different cultural aspects of Spanish and the Spanish speaking world from a global perspective.

**WLA09CP2****SPANISH 4 5 Credits**

A more advanced Spanish course designed for students who are prepared to further their understanding of the Spanish language and related culture. Topical vocabulary pertaining to given themes and more complicated grammatical structures are introduced in conjunction with a systematic review of previously learned concepts. Students completing this course will be reasonably conversant on a variety of topics in Spanish and will be able to apply their knowledge to some novel situations with relative fluency.

**WLA09H****HONORS SPANISH 4  
5 Credits**

This is a considerably advanced Spanish course which continues to build upon the complexities of the Spanish language through the sophisticated examination of relevant linguistic, grammatical, and cultural concepts. Students completing this rigorous course will have developed a high functional ability in Spanish and will be able to apply their knowledge of the language and culture in meaningful ways and in varied and unique situations with a strong degree of fluency.

**WLA10CP2****SPANISH 5 5 Credits**

This more advanced Spanish course promotes the continuation of learning in regards to the language and related culture of the Spanish speaking world. Topical thematic vocabulary and related grammatical structures that are more sophisticated in composition are combined and integrated with previously learned concepts. Through this course of study students will ultimately complete their high school world language experience with the knowledge and skills to be reasonably competent in the realms of listening, speaking, reading, and writing in Spanish.

**WLA10H  
HONORS****ADVANCED SPANISH 5  
5 Credits**

This in depth study of the intricacies of the Spanish language is designed for students who have consistently achieved high levels of success in all prior honors level Spanish courses and are committed to perfecting their ability to thoughtfully listen, speak, read, and write in Spanish.

Students must be able to work independently using a variety of materials and resources and exhibit the ability to accept ownership of their learning. Prior approval from a language instructor(s) is necessary for enrollment in this demanding course.

**WLA14CP2**  
**THE SPANISH SPEAKING WORLD**

**CULTURE & SOCIETY OF**  
**5 Credits**

Prerequisite: Spanish 3 or higher/grade 12 students

This elective course offers twelfth grade students a broad linguistic, social, and cultural perspective regarding the Spanish language and influence in our world today. Practical conversational skills will also be honed, particularly as they relate to navigating one's way through common, daily scenarios in the Spanish speaking world. Opportunities for trans-disciplinary studies within the Humanities will be presented in order to promote and highlight the vast connections between the Spanish language and culture now and throughout history to areas including but not limited to art, music, film, literature, architecture, geography, and cuisine.

## OTHER COURSES/PROGRAMS

### **VHS00-2.5/5.0**

### **VIRTUAL HIGH SCHOOL (VHS)**

**2.5 Credits/5.0 Credits**

The VHS program is a collaborative of high schools from around the country that offer students courses ranging from advanced academic subjects to technical and specialized courses via the internet. Full credit is given for all courses successfully completed. The VHS course catalog can be found online at <https://my.vhslearning.org/PublicStudentCourseList.aspx>. Students interested in a VHS course should select VHS 2.5 for a semester course or VHS 5.0 for a full year course during the online course selection and then meet with the Assistant Principal to register for the course. Availability is limited for VHS courses so please have an alternate selection.

### **GUI03CPI CENTER**

### **TIGER TOTS LEARNING 2.5 Credits**

Prerequisite: By permission only; applications are available in the guidance office

This one semester elective for sophomores, juniors and seniors involves helping to care for and interact with Infants, Toddlers and Preschoolers. Helping children learn rules by following positive examples of appropriate behavior. Outside play, art projects, cleaning, organizing, preparing art projects and helping at mealtimes are some daily expectations. Tiger Tots is a high energy, challenging environment, yet very rewarding for the right students!

### **GUI05CP1**

### **WORK STUDY PROGRAM 5 Credits**

Prerequisite: approval of the Principal and a Guidance Counselor and Work Study Team

The Work Study Program is available to those students who may benefit from a school day that includes both academic classes and a paid work experience (minimum two hours per day) outside of the school. Parental consent and a Work-Based Learning Plan are required. Regular conferences with a member of the Guidance Department will be expected.

### **GUI06CP2 Credits**

### **BRIDGE PROGRAM 5**

The BRIDGE Program is the senior year component of the IHS School-to-Work program. Through a full-time internship, seniors learn what skills are necessary and what it takes to succeed in a career while gaining “real world” experience. Senior internships start at the beginning of the fourth quarter and run until the end of senior classes. To qualify, seniors must be in good academic standing earning C- or better in every course during their senior year and must meet all graduation requirements. Parental consent and approval by the BRIDGE Review Board are required.

**GUI08CP2****Credits****PEER MENTORING 12.5**

This class is designed to provide a mentoring program for sophomores, juniors, and seniors. The course provides leadership opportunities for qualified students. Students should be able to demonstrate the qualities of enthusiasm, initiative, and patience while working with students who have disabilities. Peer Mentors will work closely with students who have disabilities in coordinated activities and lessons with teachers and teaching assistants. Peer Mentors must have a sense of responsibility and sensitivity toward others.

**DENSGUI02  
EDUCATION****UNDERSTANDING HIGHER  
5 Credits  
AND CAREER PATHWAYS**

Prerequisite: Junior or Senior Status; Meet Communications Proficiency Requirements of North Shore Community College

This first semester dual enrollment course is taught by a North Shore Community College professor in conjunction with a high school counselor. It provides an introduction to higher education, including the different purposes, functions, and structures of postsecondary institutions. Students will gain a comprehensive understanding of degree and career pathways available across institutional types as well as familiarity with the social and emotional factors that influence student persistence and completion across educational settings. A variety of contemporary issues in higher education will be explored, with particular emphasis on the ways in which student experiences intersect with these issues. Topics include but are not limited to: academic discourse, social-emotional learning, educational planning, financial planning, college placement options, prerequisites/corequisites, and teaching and learning modalities. While this course focuses on higher education specifically, course topics will have application to educational settings and successful learning more broadly. The course counts for honors high school credit as well as college credit.

**GUI21AP****AP SEMINAR 5 Credits**

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip

students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

**GUI22AP**  
**Credits**

**AP RESEARCH      5**

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.