



**WASHINGTON ACADEMY**  
Since 1792

*Program of Studies*  
*2011-2012*

## Washington Academy Program of Studies

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## History

Washington Academy was chartered in 1792 under the governorship of John Hancock, Commonwealth of Massachusetts. It has a two hundred-year history of expansion from one building with one teacher and three courses, to nine buildings, 41 teachers, and a multitude of programs, courses, athletics, and other important co-curricular activities.

From 1792-1823 classes were held in a public school house and in Burnham Tavern in Machias, and in the Masonic Hall in East Machias. In 1823 an all boys' school was established in its own building with Reverend Adams teaching geography, English grammar, and chemistry. Not until 1853 did much change occur. At that time, the school attempted to become a Normal School to train teachers. Since no teachers were found, the school closed. In 1853 Washington Academy reopened at its previous status.

By 1876 the school's first diplomas were awarded. Those diplomas required completion of courses in arithmetic, algebra, government, rhetoric, grammar, English literature, mental philosophy, mineralogy botany, astronomy, declamation, and composition.

A new wing was added to the Academy Building in 1899. This provided an assembly room, a library, and chemistry and physics laboratories. The basement of the school then became the school's first gymnasium. Around 1900, athletic fields were purchased across the street from the Academy. Not until 1932 and 1933 were more land purchases made. These were a football field and tennis courts, respectively. Football proved too expensive and was eliminated after one year.

The 1934 purchase of Disciples Church across from the tennis courts provided classrooms for commercial and business courses. This building was named the Albee-Richardson Building after the 1965 tragic death of two Academy seniors. By then the building was used for art and drama.

The 1958-59 Alumni Building construction gave much new space to the Academy. The upstairs was a gymnasium. Downstairs held home economics, commercial courses and a banquet room. The Alumni Building received a new science laboratory and renovations in 1963. In 1966 a library-classroom addition was accomplished. The year 1973 saw the north wing addition. This placed all classes except band in the Alumni Building. The Edwin Cates house, next to the Alumni Building, was bought in 1975 as a new Headmaster's House. Just behind that house a new vocational education building was built in 1982-83.

More construction was carried out at the Academy from 1993-95, bringing the number of buildings to six. A complete renovation was done on the Alumni Building. Other new buildings consisted of a separate gymnasium and classroom building and a vocational technical building.

In 2003-04, a boarding program was established. In 2004 the Headmaster's House was converted into a dormitory for girls, and the Dr. Karl Larson building was purchased and renovated for a dormitory for boys.

A more detailed record of Washington Academy's history is written in a brochure printed for the 1992 bicentennial.

*Original Source: Washington Academy, A Historical Overview, by Judd Bragg, Class of 1992*

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## **GRADUATION REQUIREMENTS**

To receive a diploma from Washington Academy students in the graduating class of 2012 must take and pass 16.5 required courses plus 3.5 elective courses, totaling 20 credits. For students in the graduating classes of 2013 and beyond, 16.5 required courses plus 6.5 elective courses are required, totaling 23 credits.

Seniors must earn a passing grade in at least two (2) courses in the second semester of their senior year to participate in graduation exercises. All correspondence courses must be completed and grades in the Guidance Office by May 5.

### **Required Courses (Class of 2012) - 20 Credits:**

4 English

3 Math

3 Science (1 must be Biology *or* Coastal Ecology, **and** 1 credit in Chemistry)

3 Social Studies (1 must be U.S. History, **and** ½ credit in Government **and** ½ credit in Introduction to Social Sciences)

½ Health

1 Physical Education

1 Fine Arts

3.5 Electives

### **Required Courses (Class of 2013 and Beyond) - 23 Credits:**

4 English

3 Math (please note class of 2015 and beyond will require 4 math credits for graduation)

3 Science (1 must be Biology *or* Coastal Ecology, **and** 1 credit in Chemistry)

3 Social Studies (1 must be U.S. History, **and** ½ credit in Government **and** ½ credit in Introduction to Social Sciences)

½ Health

1 Physical Education

1 Fine Arts

6.5 Electives

\*Please note that many students surpass the minimum number of credits required to graduate. It is suggested that if a student is planning to attend a four year university, that they take 4 years of English, 4 years of science, and 4 years of math, and at least two years of the same foreign language.

\*Graduation requirements from Washington Academy are not the same as college entrance requirements. The students must fulfill graduation requirements to receive a Washington Academy diploma, but the student also needs to keep in mind college entrance requirements and plan accordingly.

### **Block Scheduling**

The majority of courses meet everyday for 80 minutes. Some classes such as the Advanced Placement courses, Chorus, Band, Math Lab or English Lab meet for only half of a period (40 minutes). The school year is divided into two semesters. The student begins the year with four classes; these four classes are over at the middle of the school year. At this time, the student will begin four new classes. The student earns one credit for each class they pass with a 70 or greater. Students have the potential to earn 4 credits semester one and then another 4 credits semester two, totaling 8 credits for the year.

Some courses such as, government, intro to social sciences, physical education, personal fitness and health are half credit courses that meet for only half of a semester (9 weeks)

**OPTIONS TO FULL GRADUATION REQUIREMENTS**

<p style="text-align: center;"><b><u>Freshman</u></b>  English 9  Honors English 9  Intro to Social Sciences  Honors Intro to Social Sciences  Government  Honors Algebra 1  Accelerated Algebra 1  Algebra 1  Math Foundations  Integrated Science  Honors Integrated Science  Physical Education  Health  *Fine Arts</p>	<p style="text-align: center;"><b><u>Sophomores</u></b>  English 10  Honors English 10  World History  Honors World History  AP European History  Honors Algebra 2  Accelerated Algebra 2  Algebra 2  Honors Geometry  Geometry  Biology  Honors Biology w/lab  *Fine Arts</p>
<p style="text-align: center;"><b><u>Juniors</u></b>  English 11  Honors English 11  AP English Language and Composition  Husson English 1  Husson English 2  U.S. History  Honors U.S. History  AP U.S. History  AP European History  Husson Western Civilization  Husson Sociology  Husson Psychology  Honors Geometry  Geometry  Honors Algebra 2  Accelerated Algebra 2  Accelerated Pre-Calculus  Husson Probability and Statistics  Chemistry  Honors Chemistry w/lab  Husson Anatomy and Physiology</p>	<p style="text-align: center;"><b><u>Seniors</u></b>  English 12  Honors English 12  AP English Literature  Psychology  Sociology  Husson Psychology  Husson Sociology  Husson Western Civilization  AP European History  Accelerated Pre-Calculus  AP Calculus AB or BC  Functions/Statistics/Trigonometry  Husson Algebra  Husson Probability and Statistics  Honors Chemistry 2 w/lab  Physics  Honors Physics w/lab  Husson Anatomy and Physiology  AP Biology</p>

**\*Please note, although only 3 years of math/science/social studies are required to graduate, most universities prefer to see 4 years of each. While foreign language is not a graduation requirement, most universities require at least 2 years of the same language as a college admission requirement.**

## English

Basic skills in communications are a major goal of the Washington Academy English Department. The skills of reading, listening, speaking, and writing are means in the search for the understanding of one's self and of one's environment.

### **English 9-** (1 credit)

This course involves writing instruction from the formal usage of grammar through essay writing. Students read from a variety of fiction and nonfiction sources, including short stories, essays, poetry, an epic poem, a novel, and a Shakespearean play. Students will receive a library orientation and will acquire computer skills involved in researching and writing research papers.

### **Honors English 9-** (1 credit)

This course covers the same topics as English 9 but has a more challenging workload at a quicker pace. Honors level students are expected to read more content and write more total pages throughout the course, while showing consistent improvement in their ability to analyze and discuss literature, culture, and history.

### **English 10-** (1 credit)

A literacy based climate is created as students read and write in numerous genres for a variety of purposes. Students participate in peer-conferences, one-on-one teacher conferences, on-line threaded literature discussions, group reading projects, and inquiry-based projects, including an inquiry-based research project, along with reading essays, poems, short stories, plays, and novels.

### **Honors English 10-** (1 credit)

This course covers the same topics as the English 10 course described above, with a more challenging workload and more emphasis on analytical writing. Familiarity with the formal use of grammar is assumed. Honors-level students are expected to show consistent improvement in their ability to analyze and discuss literature, culture, and history.

### **English 11-** (1 credit)

This course provides students with an opportunity to improve their written expression, reading skills, listening skills, oral communications and ability to think clearly. Students will be required to use precise grammar and composition and to implement what they learn in their written and oral communications. American literature with emphasis on novels, short stories, drama, poetry and essays will be required reading as students become aware of their literary heritage. Selected writing samples will be kept in a student portfolio.

### **Honors English 11 –** (1 credit)

This course is an introduction to the major works of American literature and is designed to keep students connected to the past while providing insights into the events and issues that challenge the nation today. Through reading, discussion, examining history and literature together, and learning about the great writers, thinkers, and ideas of the past, students will gain a deeper understanding of how the country changed over the centuries, and what makes its people unique. The scope of the course is broad; therefore, emphasis will be placed on gaining basic knowledge of the representative works of these major figures and the critical issues that shaped them and their works through class discussions, writing assignments, and traditional testing methods. Additionally, strategies for active reading and note taking will be implemented. For each unit, one or two essays will be required. These include

persuasive, analytical, reflective, and compare/contrast essays. Students will enjoy poetry, short stories, plays, and novels throughout the course. SAT vocabulary lists will be distributed weekly in preparation for the SAT exam in the spring.

### **English 12 - (1 credit)**

This course is an introduction to the major works of English and world literature. Emphasis is placed on gaining basic knowledge of the representative works of major authors and the critical issues that shaped them and their works. The primary goal of the course is for students to increase their learning efficiency and the transfer of problem-solving skills to other content areas and their own life experiences to interpret the value and significance of a work. To support this endeavor, students will broaden and refine their writing skills by completing both formal and informal writing assignments. Note taking techniques are introduced and the use of notebooks is allowed when taking tests. Video presentations, when available, are presented in class to aid in the overall comprehension of some of the major works that are studied.

### **Honors English 12 – (1 credit)**

This course requires students in a college preparatory program to study the major works of English and world literature in depth. Students must be above average readers and writers who can decipher and comprehend literary works and have the ability to identify the literary devices from poetry that spans time from the Anglo-Saxon era through the Twentieth century. Students will engage in critical reading and use their own experiences and knowledge of the world to interpret the value and significance of a featured piece of literature. Students will broaden and refine their writing skills to enable them to make the transition from high school to college. These include both informal and formal writing assignments that include a variety of essays. A final research paper and presentation are required in lieu of a final exam.

### **Husson English 1 – (1 WA credit) (3 Husson credits)**

*Prerequisites: Junior or Senior Standing, successful completion of previous Honors English courses. Students are responsible for the Husson Universities Registration Fee.*

This course is titled *Rhetoric and Composition* and requires students to learn techniques for effective oral and written communication. Taught within a workshop environment that features continual instructor and peer evaluation, students develop a process approach to writing and speaking. Students are required to produce writing within a variety of genres, including a critical analysis paper, an adaptation narrative, and a researched based paper comparing an element of two very different cultures. Beyond the three major papers students will be required to participate in several Writers Workshops designed to refine writing proficiency. Students must keep up with required reading and note taking techniques set forth by the instructor. Class participation is mandatory and required in order to pass the class. In lieu of a final exam, students must hand in a comprehensive portfolio of works completed during the semester. A grade of 70 or better is required to pass the course. Successful completion of Husson courses will be recognized by Husson University.

### **Husson English 2 - (1 WA credit) (3 Husson credits)**

*Prerequisite- Husson English 1.*

*Students are responsible for the Husson Universities Registration Fee.*

This course teaches techniques for effective oral and written communication. In a workshop environment that features continual instructor and peer evaluation, students develop a process approach to writing and speaking. Logical argumentation, academic conventions, and research-related skills are the primary focus. Public speeches are based on written assignments that incorporate various source

materials. As students explore connections between the written and spoken word, the significance of nonverbal language and listening skills are emphasized. A grade of C or better is required to pass the course.

**AP Language and Composition-** (1 credit)

*Prerequisites: Junior or Senior Standing, successful completion of previous Honors English courses. Advanced Placement Senior English requires students to take the College Board AP Examination. Students will be required to pay the examination fee.*

Students read and analyze a broad range of nonfiction prose selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing, students arrive at a greater awareness of purpose and strategy, while strengthening their own composing abilities. Course readings include expository, analytical, personal, and argumentative texts from a variety of authors. Students work with essay, journalism, political writing, and nature writing. Students are required to write in many forms such as narrative, expository, analytical, and argumentative essays that proceed through several stages of drafts, with revision aided by teacher and peers. Students also analyze how graphics and visual images relate to written texts and serve as alternative forms of texts themselves.

**AP Literature and Composition-** (1 credit)

*Prerequisites: Junior or Senior Standing, successful completion of previous Honors English courses. Advanced Placement Senior English requires students to take the College Board AP Examination. Students will be required to pay the examination fee.*

This course emphasizes the development of skills in critical reading of literature and in writing about this literature. It is for students capable of doing college-level work in English while they are in secondary school. Selected writing samples will be kept in a student portfolio.

This course also expects students to engage in discussion, accept criticism from the teacher and their peer, and be able to explore a variety of ideas. Summer readings of novels and plays with the writing of appropriate analytical papers is also expected. Reaction papers, approach papers, and a course-long exploration of a noted author, culminating in an in-depth research paper will be included.

**Creative Writing-** (1 credit)

This course emphasizes the development of specific writing techniques to use in exploring life and to improve creative writing skills. Regularly assigned daily journals, relative writing, class participation, and a creative writing notebook will be required of students. Research of a noted poet, a major short story, and a poetry anthology will be important segments of this class.

## **English as a Second Language (ESL)**

The ESL program exists to improve students' skills in the English Language and enhance their experience of American culture. Emphasis is placed on reading, writing, speaking and listening. The philosophy of the department is to train students to communicate in a meaningful and effective way, both through the written and spoken world.

Students are placed into courses based on their Standardized Test of English and SLEP exam scores. Once a student is placed in a level they must maintain designated course work for the entire semester.

**Individualized Immersion Program**

*Students in the Immersion Program will have a SLEP score between 35-40.*

**ESL Grammar and Composition 1-** (1 credit)

This is the first of two sequential courses that provides students with a solid foundation in writing skills. This course guides beginning writers through the process of writing grammatically accurate topic-related sentences to drafting well-developed paragraphs using a variety of organization types. This is done through scaffolding the writing process with a strong emphasis on language development. This language development serves as a foundation for writing. Students will gain the confidence they need to advance to the second level of Grammar and Composition. The study of grammar is done by connecting grammar and writing, providing interesting, informative readings and activities, and guiding students in the editing process. Focus is also on technology with online resources such as workbooks that feature additional exercises that students can access in the classroom or at home. Assigned readings and journal writing are also part of the class work.

**ESL Speaking and Listening-** (1 credit)

Students in this course will immerse themselves into the correct usage of formal and conversational English speaking and proper listening techniques.

**Basic ELS Language and Literature-** (1 credit)

This course provides a supportive environment for English Language Learners, while they acclimate to American culture. The textbooks, homework, speaking and writing, present English across the curriculum. Each week students learn a different genre of literature. They read and study the text features of a poem, fable, diary, legend, speech, play, folktale, biography, informational texts, and narratives. They learn new vocabulary and a variety of reading strategies to improve comprehension. Students learn and practice grammar in context for their weekly reading and writing activities. They also use audio, visual and online activities to improve listening, speaking, reading and writing skills.

**Integrated Transitional Language Program**

*Students in the Transitional Program will have a SLEP score ranging from 43-54*

*Prerequisite: Successful completion of basic language, grammar and composition, and speaking and listening.*

**Grammar and Composition II-** (1 credit)

*Prerequisites: Qualifying SLEP score and/or successful completion of Grammar and Composition 1.*

This is the second of two sequential courses that provides students with a continuing foundation in the writing process. This course offers a review of the material covered in Grammar and Composition 1, and then focuses on having students master the basics of short composition writing. Students work through a five-step process approach within the composing process: brainstorming, preparing the first draft, revising, and editing. Students will also learn how to compose multi-paragraph short compositions. Students draw on personal experiences to organize their writing, using academic modes of organization such as exemplification and cause and effect. In addition, students learn how to write about works of fiction and nonfiction by summarizing the citing sources. Language learners also gain knowledge and skills in both grammar structures and topic areas. Students use technology in the classroom in areas such as word processing for compositions and assignments that include on-line resources and workbooks. Daily journal writing and outside readings are part of the course work.

**Intermediate ESL Language and Literature-** (1 credit)

*Prerequisites: Qualifying SLEP score and/or successful completion of Basic ESL Language and Literature.*

This course provides a structured environment that emphasizes reading comprehension and vocabulary development. The textbook covers twelve genres of literature that students explore while learning

grammar in context. Students use audio, visual, and online activities to improve listening, speaking, reading and writing skills. Students demonstrate understanding of text features, word study, spelling and punctuation in writing activities. Grammar rules and structures are learned to improve cohesion and paragraph development completed in compositions.

**American Culture - (1 credit)**

This semester course is designed for intermediate level English language learners. The approach to teaching this course is to develop the four areas that are the cornerstones of English as a second language. Therefore, this course emphasizes listening, reading, speaking, and writing skills.

The semester is largely focused on the beginnings of Native American history, European conquest, Puritan ideals, and the foundation of American government. We then examine the political, social, and economic events that contribute to the Civil War and the Reconstruction Period. The course continues with the study of the development of Industrial America through the Gilded Age to the Depression and WW I. We finish with study of WWII and the beginnings of the Cold War.

**Level:** This course is designed for those students in the second year of our ESL Program.

**ESL Science- (1 credit)**

This course enables students to understand essential concepts in biology, chemistry, earth and space science, and physics; to develop skills in the processes of scientific inquiry; and to relate science knowledge to technological social and environmental knowledge. Students will learn about scientific theories and pursue inquiries related to cell division and reproduction, atomic and molecular structures, properties of elements and compounds, the universe and space exploration, and the principles of static and current electricity.

**Level:** This course is designed for those students in the second year of our ESL Program.

**TOEFL Prep- (1 credit)**

*Prerequisites: Junior standing*

This course is designed to help students master the skills and acquire the confidence necessary to get a high score on the internet-based TOEFL test(iBT). This test is a measure of acquired English proficiency, and is recognized throughout the world by universities and businesses. It evaluates the level of acquired skills in the areas of reading comprehension, speaking, listening and writing. The iBT evaluates the level of acquired skills in the four important areas of effective communication: speaking, listening, reading and writing. The test helps students demonstrate that they have the skills necessary for success. It also emphasizes integrated skills which provide better information to institutions about a student's ability to communicate in an academic setting and their readiness for academic coursework. These same skills are equally essential for success in honors level classes here at Washington Academy. The course is intensive in nature and requires a lot of work on the students' part. Focus is on developing not only language skills, but also test-taking strategies. Students in this course use the latest in materials and computer-based programs to develop these strategies in all four areas. Practice tests provided by the ETS website ensure that students have gained experience for the actual test. Emphasis is also placed on vocabulary which has been closely linked with academic success. Lab time is built into the class schedule. This course is a prerequisite to College Writing for Seniors.

**TOEFL iBT Preparation Course- (½ credit)**

*Prerequisites: Junior standing*

This course is designed for Juniors who want to improve their TOEFL scores. Students will learn effective test-taking strategies for each section of the exam, test directions, how to explore key concepts of the TOEFL and how to master them, and what to expect on test day. Two realistic practice tests,

including real sample questions will also be completed. Course work includes: Listening comprehension, structure, reading comprehension, and writing. The course is designed to not only help students reduce test anxiety, but also to help students develop those skills necessary for success in academic classes.

### **University Preparation Program**

*Students in the University Preparation Program will have a SLEP score of 55 or higher*

#### **Advanced ESL Language and Literature-** (1 credit)

*Prerequisites: Successful completion to Grammar and Composition II as well as Intermediate ESL Language and Literature and/or qualifying SLEP score with instructor permission.*

This course provides English Language Learners with a challenging opportunity to exercise critical thinking and creativity. Students learn to create outlines, edit and revise initial and final drafts of typed compositions.

The textbook, homework, speaking and writing activities explore English across the curriculum to help students succeed in content area, mainstream classes. Students demonstrate understanding of different genres of literature in creative and expository writing samples. Weekly writing prompts require understanding of complex grammar structures in preparation for mainstream English classes and SAT and TOEFL exam

#### **ESL College Writing-** (1 credit)

*Prerequisite: Senior standing and successful completion of Jr. TOEFL preparation*

This course is ideal for intermediate to high-intermediate level students ready to write fully developed essays and sharpen skills for use in an academic setting. The focus of the class is on the writing process, and the study of common organizational patterns and types of writing. Students will be given the foundational skills to develop essays that are not only expressive and rich in content, but also clear and cohesive. Students will also write timed essays under exam conditions. Weekly vocabulary work will be an integral part of the term grade. Vocabulary includes both commonly used words and those studied through structural analysis. The ability to use a word processing program is essential. This course is sequential and based on successful completion of the Junior College Prep course. It provides another semester of intense preparation to take college placement test, and to master the skills necessary for success at the post-secondary level.

#### **English Course-** (1 credit)

*Prerequisites: SLEP score of 60 or higher, successful completion of Grammar and Composition II and Advanced ESL Language and Literature.*

Students at this level are encouraged to take a mainstream English course to help prepare them for college English.

# Mathematics

## Notes:

**1. Incoming freshmen take the Washington Academy Math Placement Test. The results are used to help the guidance office place students into the math course that best matches the student's needs and abilities.**

**2. Use of calculators in Washington Academy's math program: Students are expected to learn how to work problems without calculators first, then will be permitted to use calculators for more complicated problems. All of our higher-level math classes (except for Geometry) require students to have a graphing calculator. These can be expensive, so we recommend the purchase of one graphing calculator early on. We recommend either the TI-83 or TI-84 models.**

**Math Foundations** – (1 credit) This course is designed to review critical middle school math concepts which must be mastered to succeed in higher-level courses such as algebra and geometry. The course focuses on the following areas: computation and arithmetic operations, in particular: order of operations, negative signed numbers, fractions, proportions, ratios and percentages, solving word problems, working with exponents, and basic geometry/trigonometry concepts (shapes like squares, triangles, rectangles, and circles). The course is structured for approximately half the class on classroom instruction and the remaining half for students to work at their own pace on ALEKS, an artificial-intelligence based math tutorial system. Students who are successful in this course are ready to move into standard Algebra I.

**Algebra I** – (1 credit) This is a freshman course that is organized around families of functions, with special emphasis on linear functions. Functions will be represented as verbal descriptions, equations, tables, graphs, and real-world models. In addition to linear algebra, this course includes graphing quadratic functions, probability, basic statistics, and right triangle trigonometry. Students are assessed based on quizzes, tests, in-class activities, and homework.

**Accelerated Algebra I** – (1 credit) This is a freshman course that moves at a faster pace and in more detail than Algebra I. The course encompasses the material in Algebra I and includes solving quadratic equations and basic trigonometry. This course is designed to challenge students to make connections between the functions that they learn and solving real-world problems. Students are assessed based on quizzes, tests, in-class activities and homework.

**Honors Algebra I** – (1 credit) This is the most advanced entry-level math course offered and is intended for students interested in ultimately taking Advanced Placement Calculus their senior year. Students interested in math who have scored above 85% on the Math Placement Examination are encouraged to enroll in this course. Those finding the course too fast-paced or difficult may transfer to Accelerated Algebra I at any time during the semester upon approval of the instructor and the student's parent or guardian. The course is a fast-paced study of basic algebra concepts, including an introduction to right triangle trigonometry, and addresses all the topics covered in the Algebra I textbook, including linear, quadratic, absolute value, rational, exponential, radical, and polynomial functions, solving algebraic equations of two variables, inequalities in one and two variables, introduction to matrices, and probability and statistics. Topics included at the end of the course may include an exploration of number bases other than base 10 and an introduction to complex numbers. Assessments are quizzes, pop quizzes, and tests. Students should expect to spend an average of 30 to 45 minutes per day on homework. Homework is not graded, but is frequently checked to make sure

students are making an honest effort on their assignments. A graphing calculator is recommended, but not required, for this course (note: follow-on math courses after algebra I do require students to possess a graphing calculator). This course is offered once per year, usually during the first semester. Students earning a C or better are qualified to take the follow-on course, Honors Algebra II.

**Geometry** – (1 credit). *Prerequisite: Algebra I.* This course deals with several forms of geometry. The major emphasis of the first quarter is on triangles, then branching into polygons, circles, trigonometry, coordinate geometry, and an introduction to circular geometry. Students are required to bring a protractor, compass, and a scientific calculator (TI-30, TI-83, or TI-84) to class and also for study use. Students are assessed based on homework, quizzes, tests and projects.

**Honors Geometry** – (1 credit). *Prerequisite: Accelerated or Honors Algebra I, or permission of the instructor.* This course goes into much greater depth than the basic geometry course, including all the topics in regular geometry, as well as full coverage of circular geometry and the introduction of formal proofs. Students are required to bring protractor, compass, and scientific calculator (TI-30, TI-83, or TI-84) to class daily, and to use these tools when working outside class assignments. Students are assessed based on homework quizzes, tests, and projects.

**Algebra II** – (1 credit). *Prerequisite: Algebra I and Geometry, or permission of the instructor.* This course covers basic algebraic concepts that build on what students learned in previous math courses, with the focus being on applying math concepts to solve problems. Algebraic functions covered in Algebra I are reviewed in greater depth, and new functions such as logarithms are introduced, and basic trigonometry is reviewed. Concepts in exponents, the number system, and functions are extended beyond Algebra I. Students are required to be proficient in handling algebraic concepts and skills, complete daily homework assignments, use deductive reasoning, and show an understanding of concepts and skills by successful completion of quizzes and tests.

**Accelerated Algebra II** – (1 credit). *Prerequisite: Accelerated Algebra I and Geometry, or Honors Geometry, or permission of the instructor.* This course picks up from Accelerated Algebra I and provides much more in-depth coverage of algebraic concepts than the Algebra II course. The focus remains on problem solving, and new functions and functional notation are introduced, including logarithmic, and trigonometric and inverse functions. Other concepts, such as fractional exponents, analytic geometry, conic sections, and trigonometric identities are covered. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). Students are assessed based on homework, quizzes, and tests.

**Honors Algebra II** – (1 credit). *Prerequisite: Honors Algebra I or permission of the instructor. Note: It is not necessary to take geometry prior to taking this course, but students must earn a geometry credit prior to taking the follow-on course (Honors Precalculus).* This is the most advanced high-school algebra course offered, and covers the entire 14 chapters in the textbook. The curriculum includes a fast-paced review of Algebra I concepts, followed by more intensive study of algebraic and transcendental functions and more advanced algebra concepts. Trigonometry is introduced, as are series and sequences and other advanced math concepts. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). A journal is required as part of this course, and constitutes a major portion of the course grade. Other assessments include quizzes, tests, and pop quizzes. Students are expected to spend approximately 45 to 60 minutes per day on homework. While homework is not graded, it is checked periodically to ensure students make an

honest effort completing their assignments. There is one offering of this course, usually in the second semester. Successful students earning a grade of C or better are expected to take Honors Precalculus as a follow-on course.

**Functions, Statistics, and Trigonometry (FST)** – (1 credit). *Prerequisite: Algebra II or Accelerated Algebra II and geometry, or permission of the instructor.* This course is a continuation of Algebra II and covers the following topics: polynomials and polynomial functions, exponential and logarithmic functions, rational, periodic, and radical functions, trigonometry, conics, probability and statistics and sequences and series. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). Students are assessed based on homework, quizzes and tests.

**Honors Precalculus** – (1 credit). *Prerequisites: Honors Algebra II and Honors Geometry, or approval of the instructor. Note: Given that many students enroll during their sophomore or junior year and may not have had the opportunity to take Honors Algebra II, students who want to try this course may elect to take an entry exam (available through Guidance) that tests algebra concepts.* This is an advanced math offering that is an intensive study of algebraic and transcendental functions, trigonometry, and analytic geometry, including polar and parametric functions, and series and sequences. Mastery of these concepts is required prior to enrolling in Calculus. This fast-paced course is equivalent to a college-level precalculus course and students are expected to spend a minimum of one hour per day on homework. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). Assessments are quizzes and chapter tests. Homework is not graded, but is checked periodically to ensure students make an honest effort completing their assignments. There is one offering of this course, usually during the spring semester. Successful students are expected to enroll in Advanced Placement Calculus as a follow-on course.

**Husson Algebra (MS141 Contemporary College Algebra at Husson University)** – (1 WA credit, 4 Husson University credits). *Prerequisites: This course is limited to juniors or seniors who have completed a minimum of Functions, Statistics, Trigonometry (FST) or have received the permission of the instructor.* Husson Algebra is a college-level course that extends beyond high-school algebra in depth and content. The course emphasizes the use of algebra and functions in problem solving and modeling, provides a foundation in quantitative literacy, supplies the algebra and other mathematics needed in partner disciplines, and helps meet quantitative needs in, and outside of, academia. Student engagement, independent learning, critical thinking, conceptual understanding and the interpretation of solutions are essential components of the course. Students address realistic problems by creating and interpreting mathematical models and considering them in context. The solutions to the problems are formulated, validated, and analyzed using mental, algebraic, and technology-based techniques as appropriate. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). A \$100 fee and a brief application are required by Husson University at the beginning of the course. Four credit hours on a Husson University transcript will be awarded upon successful completion of the course.

**Husson Probability and Statistics (MS132 Probability and Statistics at Husson University)** – (1 WA credit, 3 Husson University credits). *Prerequisites: This course is limited to juniors or seniors who have completed a minimum of Functions, Statistics, and Trigonometry (FST), or have received the permission of the instructor.* This college-level course offers students an introduction to the theory and application of probability and statistical analysis. In an age in which information is easily accessible and overwhelmingly abundant, the course prepares students to interpret and analyze data objectively and to make informed decisions about a variety of topics. Both descriptive and inferential techniques

are studied, with the emphasis placed on statistical sampling and hypothesis testing, along with data exploration and presentation, normal distributions, linear regression, contingency table analysis, confidence intervals, and decision-making under uncertainty. Students will learn a variety of statistical techniques using a graphing calculator and Microsoft Excel. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). A \$100 fee and a brief application are required by Husson University at the beginning of the course. Three credit hours on a Husson University transcript will be awarded upon successful completion of the course.

**Advanced Placement Calculus, AB** – (1 credit). *Prerequisites: Honors Precalculus or approval of the instructor. Note: Given that many students enroll during their sophomore or junior year and may not have had the opportunity to take Honors Precalculus, students who want to take this course may elect to take an entry exam (available through the Guidance office) that tests precalculus concepts. Students enrolling between the first and second semesters are not permitted to take this course, as they will have missed more than half of the course requirement.* This is a college-level course, essentially equivalent to the first semester of a four year university's entry level calculus course. It follows an Educational Testing Service (ETS) approved syllabus that addresses all Advanced Placement course objectives, including limits, differentiation, integral calculus, differential equations, and determining areas and volumes using integral calculus. This is a very fast-paced course, requiring an excellent understanding of various algebraic and transcendental functions and good command of algebra and geometry. Students should expect to spend a minimum of one hour per day on homework. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). Assessments are quizzes, pop quizzes, and chapter tests. Homework is not graded, but is checked periodically to ensure students make an honest effort completing their assignments. Course objectives are completed by mid-April, followed by an intensive review prior to the Advanced Placement test, administered in early May. **Students are required to take this test as a condition to enrolling in the course, and are responsible for all fees.** A grade of 3 or higher earns college credit at most four-year universities. The last month of the course is focused on topics of interest to students that apply the concepts learned during the course. A copy of the ETS-approved syllabus is available upon request.

**Advanced Placement Calculus, BC** – (1 credit). *Prerequisites: Honors Precalculus or approval of the instructor. Note: Given that many students enroll during their sophomore or junior year and may not have had the opportunity to take Honors Precalculus, students who want to take this course may elect to take an entry exam (available through the Guidance office) that tests precalculus concepts. Students enrolling between the first and second semesters are not permitted to take this course, as they will have missed more than half of the course requirement.* This is a college-level course, essentially equivalent to the first and second semesters of a four year engineering university's calculus curriculum. It follows an Educational Testing Service (ETS) approved syllabus that addresses all Advanced Placement course objectives, including limits, differentiation, integral calculus, differential equations, applications of integral calculus, advanced integration techniques, improper integrals, series and Taylor Polynomials, calculus using parametric and polar functions, and vector analysis. This is an extremely fast-paced course, and only students with exceptional math abilities should consider enrolling. Students should expect to spend a minimum of 90 minutes per day on homework. A graphing calculator is required for this course (recommended is one of the following: TI-83 or TI-84 series). Assessments are quizzes, pop quizzes, and chapter tests. Homework is not graded, but is checked periodically to ensure students make an honest effort completing their assignments. Course objectives are completed by mid-April, followed by an intensive review prior to the Advanced Placement test,

administered in early May. **Students are required to take this test as a condition to enrolling in the course, and are responsible for all fees.** A grade of 3 or higher earns college credit at most four-year universities. The last month of the course is focused on topics of interest to students that apply the concepts learned during the course. A copy of the ETS-approved syllabus is available upon request.

## **Science**

Washington Academy seeks to acquaint students with the important concepts of science and to guide them toward independent thought in the subjects they study. We further believe in a great deal of emphasis in the area of conservation, energy resources, environment, and new scientific technology. With this knowledge and the ability to think analytically students may pursue formal education, scientifically related hobbies, and productive careers.

### **Integrated Science-** (1 credit)

This course prepares students for biology, chemistry, physics, and ecology, giving them the confidence to succeed and engage in more advanced scientific investigations. Students become exploratory learners by engaging in hands-on, collaborative activities and scientific investigations within a positive and focused classroom environment. They develop the ability to think scientifically and creatively about the natural world, an understanding of the integrated nature of scientific inquiry, and a sense of responsibility for their studies. Topics in physical science, physics, chemistry, earth science, astronomy, natural resources, energy, and conservation are covered with an emphasis on key subjects such as the electromagnetic spectrum, energy transfer and conservation. Students gain important skills in scientific measurement, unit conversions, the application of physical science equations to natural phenomena, design and experimentation, spreadsheets and graphing (including tutorials in Microsoft Excel), Geographic information systems (GIS), laboratory investigations, lab reports, researching a scientific paper, and reflective journal writing. Different learning styles are accommodated with auditory, visual, hands-on, inquiry-based and creative teaching methods.

### **Honors Integrated Science-** (1 credit)

This challenging and fast-paced course is designed to prepare students for advanced scientific inquiry in biology, chemistry, physics, and ecology. Students become exploratory learners by engaging in hands-on, collaborative activities and scientific investigations within a positive and focused classroom environment. They develop the ability to think scientifically and creatively about the natural world, an understanding of the integrated nature of scientific inquiry, and a sense of responsibility for their studies. Topics in physical science, physics, chemistry, biology, earth science, astronomy, and natural resources are covered with an emphasis on unifying themes such as the physics of motion, the electromagnetic spectrum, energy transfer, and conservation. Students gain important skills in scientific measurement, unit conversions, the application of physical science equations to natural phenomena, design and experimentation, spreadsheets and graphing (including tutorials in Microsoft Excel), Geographic information systems (GIS), laboratory investigations, lab reports, researching a scientific paper, and reflective journal writing. Different learning styles are accommodated with auditory, visual, hands-on, inquiry-based and creative teaching methods.

**Biology-** (1 credit)

*Prerequisite: Integrated Science*

This course is similar to honors biology and is offered to students who do not want the challenge of an honors course. Essentially the same topics, activities and assignments are involved but are covered with less depth and with different assessment expectations.

**Honors Biology with Lab-** (1 credit)

*Prerequisite: Integrated Science*

This introductory course in biology is inquiry based where students study major topics of biology such as genetics, evolution, biochemistry, ecology, and metabolism by completing a variety of activities including laboratory work, oral presentations, group projects, and model building. Emphasis is placed on the process of learning science by doing science. Students often work in groups with class discussion of topics as the norm. Maintaining a notebook of written class work is a major requirement.

**AP Biology-** (1 ½ credits)

*Prerequisites: Junior/Senior status, Honors Chemistry and or Biology, Algebra 2.*

*Students who intend to sit for the AP exam in May are responsible for the testing fee.*

AP biology is equivalent to a first year college biology course. Major topics of biology such as biochemistry, cell biology, evolution, genetics, organismal and population biology are covered as dictated by the published AP biology curriculum. After completion, students must take the AP biology exam. College credit can be earned with an acceptable score. This is a demanding course requiring much independent work outside class, as well as much preparation for class. Prior lab experience is assumed with students acquainted with proper laboratory technique before beginning the course. Summer assignments prior to taking the course can be expected. This is a two semester course that meets everyday for 40 minutes with two extra lab periods each week.

**Chemistry-** (1 credit)

*Prerequisite: Junior/Senior Standing, Algebra 1.*

This course takes a different approach to learning chemistry. Each unit revolves around a societal question. This question creates a need to know chemistry to find a solution to a community based question. The chemistry presented to the students builds upon the same vocabulary, thinking skills, problem-solving skills and lab techniques as most traditional introductory chemistry courses.

The student is lead to integrate what they have learned to see how it addresses issues in the real world. This is accomplished through many decision-making activities that are a part of this course. It is the long-term goal of the curriculum to present to the students the need and the skills to acquire technical knowledge to make intelligent decisions for themselves and for the communities in which they belong. This class requires students to maintain a neat, well organized, portfolio of class notes, handouts, and laboratory investigations, and assessments.

**Honors Chemistry I with Laboratory-** (1 credit)

*Prerequisites: Junior/Senior Standing, Algebra 1.*

Chemistry is the study of matter, its composition, properties, and interaction with energy. This course will develop into the basic concepts of modern chemistry. These include atomic structure, chemical reactions, and the basis of physical properties, bonding theory, quantum theory, the periodic table, acid-base theories, and others. Problem solving and real-life applications are emphasized. Subject matter is often cumulative with key concepts being utilized throughout the course. Students will be required to take class notes, fulfill homework assignments, write lab reports, show competence in the laboratory, and complete science projects. Students are required to keep a course notebook of

assignments, lab reports, notes and evaluations. Assessment of student progress may take the form of tests, quizzes, homework, labs and projects.

### **Honors Chemistry II with Laboratory – (1 credit)**

*Prerequisites: Junior/Senior Standing, Biology or Honors Biology, Honors Chemistry with Lab*

Honors Chemistry II with Lab is a continuation of the study of general chemistry topics not covered in Honors Chemistry I. Chemistry topics included in this level II course will include an in depth study of gas laws, stoichiometry, solid and liquid state chemistry, acids and bases, solubility and solubility constants, colligative properties, reaction rates and equilibrium, oxidation/reduction reactions and an overview of organic chemistry and reaction mechanisms. Students will also be involved in community-based educational research opportunities that may include sampling our air and/or water resources in hope of contributing to the understanding of the threats to our health and the health of the environment. Community partner organizations may include; EMARC, (East Machias Aquatic Research Center) (hatchery, classroom and lab), UMM Environmental Chemistry Lab, UMO Health and Human Resources Lab, DECH Lab, and Machias Wastewater Treatment Plant. Students will learn laboratory skills which include micro-pipetting, spectrophotometry, filtration, extraction, digestion, membrane filtration, and other routine laboratory practices. Students will visit analytical laboratories in the area and have opportunities to work with research scientists.

### **Physics with Lab- (1 credit)**

*Prerequisites: While physics is not a math class: mathematics is the language of physics.*

*Students will be best prepared if they have already successfully completed Algebra 2.*

This course is designed to be something more than a typical “Intro to Physics” course. Here, students work in problem solving teams and actually experience “Physics” rather than just read about it and observe it. While the main content focus of the course are Newtonian Mechanics, energy transfer and thermodynamics. Students also gain first hand experience with material science, engineering, and design concepts. Students are guided towards developing their best quality work that goes well beyond a basic superficial understanding of the physics concepts encountered.

Strong emphasis is placed on investigative labs, where students create detailed scaled diagrams that clearly communicate the data and physics relationships uncovered during their work. Projects range from “Technology Evolution Storyboard” where students develop a visual presentation that documents the evolution of a chosen technology, to the “Wood Strength Investigation” where students test, quantify, and present on several key aspects of wood material strength by specie.

### **Honors Physics- (1 credit)**

*Prerequisites: Successful completion of Honors Chemistry, or approval of the instructor.*

This is a college-level algebra-based exploration of physics, with primary emphasis given to concepts of mechanics (kinematics and dynamics), followed by a survey of thermodynamics, waves, electricity and magnetism, light, optics, special relativity, and quantum theory. It is a quantitative course, and requires students to have a working knowledge of algebra and geometry. Laboratory work is a major component of the course, especially during the study of mechanics (Newton’s Laws, principles of motion, systems in equilibrium and non equilibrium). Assessments are based on quizzes, chapter tests, lab work, and homework problems. Students should expect to spend approximately 60 minutes per day on homework.

### **Husson Anatomy and Physiology (1 ½ credit, WA) (8 Husson University Credits)**

*Prerequisites: Junior/Senior status, Honors Chemistry and Biology.*

*Students are required to pay a Husson University registration fee.*

Anatomy and physiology is a demanding college sophomore level course. Colleges require this

course for students who decide to pursue a medically related major. The anatomy and physiology of all the major human body systems are covered. The laboratory component includes much dissection. Daily quizzes, multi-chapter exams, and lab reports are to be expected. To be successful, intensive and extensive independent outside class study is required. Completing both semesters with at least a high C average can earn students 8 credit hours of Husson University credit.

**Outdoor Leadership 1:-** (2 credits per semester)

*Prerequisite: Integrated. Science or Biology, Junior or Senior standing.*

This course is a structured two semester program consisting of a double block for a total of 160 minutes each day, the majority of this time spent outdoors in all types of weather. The first semester focuses on the development of outdoor skills such as, map & compass, canoeing, camping, GPS use, hunting & fishing laws, basic first aid, as well environmental and Maine history as it relates to ecology, politics & the culture of Maine and their effects on Maine's natural environment. The second semester continues to have a focus on ecological issues, but is designed to develop the skills required; human relations, land management, first responder, wilderness camping/survival & small business, to become a State of Maine guide, outdoor recreation leader, forester, or game warden.

*This course **each** semester meets the requirement for 1 general science credit, 1/2 of a physical Education credit & 1/2 of an elective credit. Each semester will meet the requirement of 15 hours of community service.*

**Outdoor Leadership 2-** (2 Credits per semester)

*Prerequisite: Successful Completion of Semester I Outdoor Leadership, Age 17 (minimum age for the Maine Guide exam is 18)*

This course is for upper class men and is focused on preparing students in becoming proficient outdoor leaders. Students will gain experience in the field with a wide variety of outdoor activities while developing the skills and knowledge necessary to confidently tackle the Registered Maine Guide exams. Students will be exposed to a variety of outdoor careers; ranging from game warden to wildlife biologist, surveyor to forestry as well as guiding. The topics of study include but are not limited to: Map and compass navigation, survival skills, wilderness first aid, outdoor laws and regulations, ethics and responsibilities, natural history, search and rescue, weather, canoes and canoeing, trip planning, ecotourism, and guiding. *Students are not required to take a guide exam, but they will be prepared if they choose to do so. They are also responsible for the testing fee.*

**Coastal Ecology-** (1 credit)

*Prerequisite: Junior or Senior Standing*

This course involves environmental research and restoration activities in a number of ecosystems. Students will be exposed to forest ecology and management, river and lake water quality assessment, soils and geology, wetland surveys, and wildlife management. Students will have the opportunity to work with (job shadow) professionals in these fields. Major emphasis will focus on Atlantic salmon restoration efforts. Salmon habitat restoration and assessment will allow students to work with local, state, and federal personnel working towards this common goal. Projects include alternative energies, bioremediation, water quality monitoring, community gardening, and greenhouse operations. This course meets community service requirement for one year of Advisor/Advisee. This year-long course also meets the requirement for one credit of Biology.

## Social Studies

Social studies offers students opportunities to develop knowledge of the physical features of the world and how such physical factors affect the lives of the people in the world; how groups of people have developed social institutions; the social, political, and economic problems Americans have faced in the past; and certain skills and attitudes essential for responsible citizenship.

### **Introduction to Social Sciences and Honors Introduction to Social Sciences-** (½ credit)

The social science incorporates numerous areas of study including: History, Geography, Economics, and Political Science. These courses will give students pertinent background knowledge and a brief survey of each of these areas. Emphasis will be placed on contemporary people and events and the connection of social studies to the lives of all individuals. A major focus will be to teach students crucial skills for being successful in later social studies courses. These skills include: Public speaking, organization, writing (essays, summary note taking, reading strategies, paraphrase).

### **Government** - (½ credit)

This is a quarter course in which pupils study the privileges and responsibilities of citizenship, and the purpose, history, and function of government. Performance tasks as well as traditional assessment methods are used in grading students.

### **World History-** (1 credit)

This is a survey course, which covers the major eras and great civilizations of ancient and modern history. The course centers on the important events and themes of world history. Geography is incorporated into this course in order that students may learn the significant role it plays in all history; particularly the effect the physical world has had on the world's cultures. Performance tasks as well as traditional assessment methods are used in grading students.

### **Honors World History-** (1 credit)

This course will provide students who have a special interest in history with a broader and more challenging reading and writing experience than the World History course described above.

### **Advanced Placement European History-** (1 credit)

*Prerequisite: Sophomore, Junior or Senior standing. Students are responsible for AP testing fees.*

The study of European history since 1450 introduces students to cultural, economic, politics, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European History, (b) an ability to analyze historical evidence and historical interpretation, and (c) and ability to express historical understanding in writing.

### **United States History and Honors United States History-** (1 credit)

*Prerequisites: Successful completion of Introduction to Social Sciences and Government*

These courses cover a range of American History from the American Revolution to the Vietnam War. The focus, however, is on events of the twentieth century. Students learn to identify and analyze major figures, events, and themes from specific eras. A strong emphasis is placed on cause-and-effect

relationships with a connection to local history whenever possible. Students are required to evaluate primary sources and analyze historical documents. The class encourages pupils to look through the eyes of many Americans, from various backgrounds and cultures. Native American, African-American, Asian-Pacific History months are all celebrated. Finally, projects are centered around the philosophy of Differentiated Instruction, giving students a sense of choice and ownership in their endeavors.

### **Advanced Placement United States History-** (1 credit)

*Prerequisites: Successful completion of Honors Introduction to Social Sciences and Government, or instructor's permission.*

The Advanced Placement United States History course is designed to provide students with the necessary skills to be successful on the National AP Examination in May. In a fast paced manner, the course covers from the Age of Exploration to the Vietnam War. Assessments include multiple choice tests, essays, and document analysis. The class encourages pupils to look through the eyes of many Americans, from various backgrounds and cultures. Native American, African-American, and Asian-Pacific History Months are all celebrated. Projects are centered around the philosophy of Differentiated Instruction, giving students a sense of choice and ownership in their endeavors.

### **Sociology-** (1 credit)

*Prerequisite: Junior or Senior Standing*

This course will introduce students to the basic concepts of sociology. Sociology is the science that studies human society and social behavior. This course will present an opportunity for students to look at various aspects of society through many perspectives. A solid background and history of sociology will be presented. A wide variety of topics will include cross-cultural studies, American values, social deviancies, adolescent behavior, race and ethnic relations, prejudice and discrimination, gender and age, religion, family, and athletics. Performance tasks as well as traditional assessment methods are used in grading students.

### **Psychology-** (1 credit)

*Prerequisite: Junior or Senior Standing*

This course will cover many areas of this field, including the history of psychology, the experimental method, human development, the mind-body connection, and the theories of major psychologists. Performance tasks as well as traditional assessment methods are used in grading students.

### **Husson Western Civilization-** (1 credit) (3 Husson University Credits)

*Prerequisites: Junior or Senior Standing*

*Student is responsible for the Husson Registration fee.*

This is a survey course designed to present a concise view of the significant and relevant experiences of western civilization. Emphasis is placed on the major events, institutions, ideas and creative works that have shaped western civilization. Successful completion (Grade of C or better) of Husson courses will be recognized by Husson University.

### **Husson Psychology-** (1 credit) (3 Husson University credits)

*Prerequisites: Junior or Senior Standing*

*Students are responsible for the Husson University registration fee.*

This is a scientifically-based introduction to the discipline of psychology. It examines the study of basic patterns of behavior, including motivation, learning, emotions, the physiological basis of behavior, human growth and development, personality theory and measurement, and abnormal and deviant behavior. Successful completion of Husson courses will be recognized by Husson University.

**Husson Sociology-** (1 credit) (3 Husson University credits)

*Prerequisites: Junior or Senior Standing*

*Students are responsible for the Husson University registration fee.*

This course is an introduction to the study of society and the interaction of individuals within society. It is a prerequisite for all other courses in sociology. Topics studied include basic sociological theory and concepts, socialization, cultures, institutions, patterns of social structure, and social change. Some emphasis is placed on cultural relativity in modern society and the implications of cultural differences for business. Successful completion of Husson courses will be recognized by Husson University.

## Health

Washington Academy shares the natural concern of parents for the health and well being of their children. We believe that through Health Education we can produce better-informed students with a sound knowledge of social, physical, and mental behavior such as drugs, alcohol and tobacco.

**Health-** (1 credit)

*Recommended Freshman Year.*

This course emphasizes an understanding of good health concepts and practices. Emphasis is placed on problems and challenges young people face daily. Students acquire knowledge of proper health practices in all fields of personal health and an understanding of important health concepts. Health education shall include instruction in community health, consumer health, environmental health, family life and sex education, growth and development, and nutritional health. The course will also cover personal health, including mental and emotional health; prevention and control of disease and disorder; safety and accident prevention; and substance use, abuse and misuse, including the effects of alcoholic drinks, stimulants and narcotics upon the human body. Due to the life-threatening nature of Acquired Immune Deficiency Syndrome (HIV), a Prevention education program will be included in the comprehensive health education program.

## Physical Education

Washington Academy believes that an integral part of general education is a sound body and training to use that same body in meaningful recreational activities. We further believe that a sound physical education program will give a student conditioning, correct personal behavior through team games and sports, interest and desire to participate in lifetime activities for personal health and well being.

**Physical Education** - (1/2 credit)

This course involves participation in physical activities ranging from individual and team sports to physical fitness activities. Students will be required to change into proper physical education attire (sneakers, shorts, shirt, and white socks), participate in activities being offered, and cooperate with the instructor and peers.

**Personal Fitness-** (1/2 credit)

This course is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardio-respiratory endurance activities. Students will learn the basic fundamentals of strength training, aerobic training, and overall fitness training and conditioning. The

course includes both lecture and activity sessions. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors in fitness, wellness, and movement activity for a lifetime. Students who successfully complete the personal fitness class will develop a comprehensive fitness plan involving anaerobic and aerobic exercises, nutrition, and diet. During the course students will develop the skills needed to become a knowledgeable, physically competent and healthy individual.

## Foreign Languages

Learning another language is personally enriching and it can be a valuable tool in a student's chosen career. Students not only learn how to speak another language, they also learn about another culture as well. Students' eyes are opened to other ways of looking at and reacting to the world around them; being aware of culture differences can help them become more accepting of other people. In addition, as students see how another language functions, they learn about the nature of language in general and in turn understand their own language better.

### **Spanish 1-** (1 credit)

*Prerequisite: Must be enrolled in Honors English or be an Upperclassman.*

This course is an introduction to the Spanish language. The course introduces students to the four basic skills of listening, speaking, reading and writing, as well as to aspects of Spanish culture. Initially the emphasis will be on listening and speaking; however, students will begin writing short compositions during the second quarter. Students will learn basic vocabulary that is relevant to their own lives (family members, school subjects, clothing, food, objects found at home and at school, pastimes, etc). By the end of the semester, students should be able to communicate in the present tense in a wide range of situations.

Homework will be assigned nightly to give students lots of practice with new words and grammar. There will be frequent vocabulary quizzes and grammar quizzes as well as chapter exams.

### **Spanish 2-** (1 credit)

*Prerequisite: Successful completion of Spanish 1 with a C or better.*

This course continues and expands the skill development begun in Spanish 1. Students taking this course need to feel fairly comfortable with Spanish 1 material. Listening and speaking remain the focus of class time, but students will write several compositions outside of class. Students will also read small samples of Spanish writing in class. The grammar and vocabulary in Spanish 2 is more complex than in Spanish 1. Students will learn to communicate in the past, as well as the present tense, in both written and spoken Spanish. Numerous other grammatical concepts will be introduced.

Homework will be assigned nightly to give students lots of practice with new words and grammar. There will be frequent vocabulary quizzes and grammar quizzes, as well as chapter exams.

### **Spanish 3-** (1 credit)

*Prerequisite: Successful completion of Spanish 2 with a C or better.*

This course further expands the skill development begun in Spanish 1 and 2. The course will review the concepts from previous Spanish courses and then look at more complex grammar topics not covered previously. Short readings will be included. This class will be conducted at least 50% of the time in Spanish. This course will prepare students for entry into an intermediate college-level course or the AP Spanish course. Homework will be assigned nightly, and students will write numerous short compositions. There will be frequent vocabulary quizzes and grammar quizzes as well as chapter exams.

**Advanced Placement Spanish-** (1 credit)

*Prerequisite: Successful completion of Spanish 3 with a C or better.*

*Students are responsible for the AP Examination fee.*

This course will be conducted entirely in Spanish. The class is intended to prepare students for the AP Spanish language exam. Students will improve their four communication skills in Spanish: reading, writing, listening, and speaking. Outside of class, students will read works of fiction by well-known Spanish and Latin American authors, write essays on a variety of topics, and work through grammar review exercises. Class time will be divided between class discussions on the literature or other topics of interest, and practicing specific listening and speaking exercises similar to the ones found on the AP exam. There will be quizzes on grammar and vocabulary.

**Latin I-** (1 credit)

*Prerequisite: Must be enrolled in honors English or be an upperclassman.*

This course involves acquiring knowledge of grammar and vocabulary, acquainting students with another language structure, and studying the impact of Roman culture on our language and thought. Translating simple passages will begin on the first day. Latin grammar will be explored in depth, and memorization of grammar forms as well as vocabulary will be necessary. Students will research and learn about Roman history and culture through a variety of media, including reading about ancient Rome in both Latin and English.

**Latin II-** (1 credit)

*Prerequisite: Successful completion of Latin I with a C average or higher*

This course is a continuation of Latin I. All of the vocabulary, grammar and syntax studied the first year will be briefly reviewed before going onto more complicated grammatical forms. The focus of the class will shift increasingly towards reading longer passages from primary sources. Students will begin to learn skills to lessen their dependence on reference books. A more intensive study of Roman culture, history and literature will take place through a variety of media. By the end of Latin II, students should have a thorough comprehension of basic Latin grammar and be able to read comfortably in Latin.

**Latin III Vergil-** (1 credit)

*Prerequisite: Successful completion of Latin II with a C or higher.*

This course is a continuation of Latin II. Basic grammar and syntax will be briefly reviewed. The focus of Latin III is to study Latin literature. Students will learn more complex and subtle grammar forms, but the majority of their homework and class time will be spent reading Latin authors and discussing not only the grammar but also the concepts, philosophies, themes, etc. explored by the authors. By the end of Latin III, students will have a rich understanding of ancient Roman culture and language through their reading of primary sources.

**Latin IV/AP Latin- Vergil-** (1 credit)

*Prerequisite: Successful completion of Latin III with a C or higher.*

*Students are responsible for the AP Examination fee.*

This course is designed so that students will have read the sections of the *Aeneid* outlined by the *AP Latin Course Description* in preparation for the *AP Latin: Vergil* exam. Students will translate selected sections from Latin to English. Having read the *Aeneid* in English over the summer, the entire book will be discussed and analyzed throughout the course. In doing so, students will examine how the *Aeneid* fits into the historical, social, cultural and political context of Rome. Students will assess how

Vergil's work was influenced by previous authors, and what affect the *Aeneid* had on later authors through to the present day.

**Chinese 1** - (1 credit)

This course is designed for beginners of Chinese with an emphasis on developing basic communicative competence in Chinese. It covers two aspects (1) Chinese Language: including four basic skills (listening, speaking, reading and writing) in Chinese, Hanyu pinyin (an alphabetic means to express Chinese phonetic sounds) and about 200 characters; (2) Chinese Culture: developing basic awareness of Chinese Culture. By the end of school year, students will be able to carry out simple conversations in Chinese on a limited range of topics. Students will write in simplified characters.

**Chinese 2** - (1 credit) *Prerequisite: Successful completion of Chinese 1 with a C or higher.*

This course further expands the skill development begun in Chinese 1. The course will review the concepts from previous Chinese courses and then learn to do the followings: read some characters without pin-yin; read paragraphs and able to translate to English; listen to a narrative and able to translate/interpret; able to understand questions when asked verbally and able to answer questions verbally; can have basic daily conversations; be able to write with pin-yin (initial + final + tone) and more characters.

**Chinese 3** - (1 credit) *Prerequisite: Successful completion of Chinese 2 with a C or higher.*

This course continues to build and expand upon the language skills acquired in Chinese 2. Students will review the basics and take on further steps to apply what they have learned in Chinese 2. Grammatical concepts and vocabulary will be studied in the context of the themes introduced throughout the course. Students will also continue to develop their communicative skills in Chinese and have a deeper awareness of Chinese culture. By the end of the course, students will be able to plan a trip to China and have necessary communication strategies and skills for communication with Chinese people during their traveling in China.

## Art

The goal of the Art courses is to challenge the intellectual, creative and expressive powers of each student, while furthering the student's aesthetic sense and awareness of beauty.

**Art 1**- (1 credit)

\*\*Fine Arts Credit

The first half of this course is designed to introduce the student to basic fundamental elements of drawing, design and typography- line, shape space, value, and texture. Media use will include, but is not limited to: pencil, charcoal, pastel, pen, ink, scratchboard, and linoleum cut prints. The second half of this course presents students with problems of elementary color theory, painting techniques and three-dimensional design. Projects will include tempera paint, paper mache and clay. Students will be required to develop good work habits, relate well with other students, and use studio supplies and facilities appropriately. They will be required to participate fully in classes, complete all projects and assignments, and develop a portfolio that reflects individual progress. Self and peer evaluation, as well as teacher evaluation will take place. This course is a foundation for future art courses.

**Art 2**- (1 credit)

\*\*Fine Arts Credit

*Prerequisite: Art 1 or Instructors Permission.*

This course is designed to take those enthusiastic and/or talented students who have completed Art 1 through a series of projects that will improve their artistic skills and offer them a chance for self-expression. Looking at the art of past and present, students will attain a level of medium proficiency that allows for experimentation and refine techniques of a fine craftsman. Genre specific units such as landscapes, figure studies, portraiture and still life will be examined, as well as advanced color assignments and painting. Students will be required to develop good work habits, relate well with other students, use studio supplies and facilities appropriately and produce pieces that reflect their advanced status. They will be required to participate fully in all classes, complete all projects and assignments, and develop a portfolio that reflects their individual progress. Self and peer evaluation as well as teacher evaluation will take place.

**Honors Art-** (1 credit)

\*\*Fine Arts Credit

*Prerequisite: Art 2 or Instructors Permission*

This course is designed to highly motivated students who are thinking about pursuing the fine arts, commercial design or other arts-related careers or who wish to otherwise improve their artistic ability. Students will be required to solve advanced problems directed at fostering creative thought. In addition, the use of sound fundamentals and principles of art and design, prerequisites for this class include levels of expertise demonstrated by creative initiative, personal involvement, and sustained interest to see problems to resolution. Concern for excellence distinguishes honors students from students who are beginning learners. Students will be required to develop good work habits, relate well with other students, use studio supplies and facilities appropriately and produce pieces that reflect their advanced status. They will be required to participate fully in all classes, complete all projects and assignments, and develop a portfolio that reflects their individual progress. Self and peer evaluation, as well as teacher evaluation will take place.

**AP Studio Art-** (1 credit)

\*\*Fine Arts Credit

*Prerequisite: Art 2 or Instructor's Permission*

*Students are responsible for AP exam fees.*

Students may submit portfolios as early as the tenth grade; however, the art portfolio should be viewed as the culminating experience in a student's visual arts training. AP Studio Art is offered for highly motivated and independent students planning to attend college, whether as an art major or not. This course will require students to compile a portfolio in 2-D design, 3-D design, or drawing, demonstrating quality, breadth and in-depth engagement in the process of making art. This work may be done over a single year or longer and must demonstrate quality, strong technical skills, and a clear understanding of the elements and principles of art. The AP studio art portfolio is a performance-based exam rather than a written exam, and will be assessed by the College Board as if it had been completed by the end of the freshman year of college.

**Film and Video Production 1-** (1 credit)

\*\*Fine Arts Credit

This course is designed to give students an appreciation for the visual art of filmmaking through the study of the film industry from a historical perspective. This class will have the opportunity to study the talents of such great filmmakers as Charles Chaplin, Elia Kazan, and John Huston. Students will gain a deeper appreciation for film as an art form as well as have an opportunity to explore career options within the movie industry. Students will also develop personal criteria for evaluating films and

learn the proper handling and operation of digital cameras and editing equipment. Exceptional subject interests and a willingness to work with others are necessary requirements for this class. Grades are based on completion of assigned homework, quizzes, tests, and individual and group projects.

### **Film and Video Production 2-** (1 credit)

\*\*Fine Arts Credit

*Prerequisite: Film and Video Production 1*

This course will continue to develop the skills worked on in Film and Video Production 1. Students will gain a deeper appreciation for film as an art form, as well as have an opportunity to explore career options within the movie industry. Grades are based on completion of assigned homework, quizzes, tests, and individual and group projects.

### **Digital Photography/Advanced Digital Photography** - (1/2 credit each)

\*\*Fine Arts credit

Digital Photography is a course that enables students to understand and use a digital camera to its full capabilities. Topics covered include the inner workings and capabilities of a digital camera, a variety of characteristics of a digital image file, proper picture taking techniques, understanding and application of picture composition, framing and lighting of a subject, and additional menu selections for a variety of situations, such as portraits, sunrise/sunsets, fireworks, and up-close images. Advanced digital photography is a continuation of digital photography.

## **Music**

The Washington Academy Music Department believes that music should be placed side by side with other academic subjects. Our music program focuses on helping each student develop aesthetic potential, providing an outlet for creativity and self-expression, giving students a lifelong source of enjoyment, transmitting our musical heritage to succeeding generations, and helping students become acquainted with other cultures and periods of history.

### **Band-** (1 credit)

\*\*Fine arts credit

Band involves rehearsals and performances of a wide variety of band literature, as well as developing skills on your individual instrument. A historical perspective of music being performed will be presented along with discussion of the musical aspects of the pieces. Student's requirements include: class participation, performance at four concerts, home practice and playing exams. Participation in band may also make you eligible to participate in additional musical activities such as Honors Festivals, All-State Auditions, Pep Band, and Jazz Band, etc.

### **Chorus-** (1 credit)

\*\*Fine arts credit

Chorus involves rehearsals and performances of a wide variety of choral literature, as well as developing the basic skills of musicianship. Emphasis will be placed on the development of each individual's voice as well as harmony, balance and blend of the group as a whole. Part-singing and choreography will also be presented in this course. Student requirements include: class participation, performances at four concerts as well as baccalaureate and graduation, completion of written assignments, and completion of written and singing exams. Participation in the chorus may also make you eligible to participate in additional musical activities such as Honors Festivals, All-State Audition, and Glee Club.

**Music Appreciation-** (1 credit)

\*\*Fine arts credit

This class is designed for the student with little or no training in music, but who has an interest in learning more about how music works and how to talk about it. This class will serve as an introduction to music history, theory, criticism, and aesthetics. Students with little or no musical training, as well as those with many years of musical training will benefit from this class. The course will build on the foundation of modern Western Music and current musical trends and it will encompass topics from world music to Baroque and Gregorian chant. Students will be encouraged to develop a much more creative and educated perspective on music through discussions, readings, writings, and projects. By the end of the course students will even be able to write their very own piece of music.

**Guitar-** (1 credit)

\*\*Fine arts credit

This course is designed to present the fundamentals of guitar playing. Basic chords and strumming patterns will be the primary focus. Students will learn to read tablature as well as musical notation. Traditional folk tunes, blues progressions, improvisation, and other basic styles will be covered. (this is not a rock band experience). Student requirements include: class participation, home practice, in-class performances, performance at two concerts, and written and playing exams. A limited number of guitars are available for student use. Students are encouraged to bring their own instruments.

**Steel Drums-** (1 credit)

\*\*Fine arts credit

This course is designed for students with an interest in music who have little or no background in music. Students will learn how to play the notes on a steel drum, and instrument originating in the Caribbean. Steel Drums are provided. Requirements include: Class participation, in-class performances, performance at two concerts, and written and playing exams.

## **Career Technology**

The Career and Technical Education Department will develop desirable work habits in business and technology activities; as well as contribute to the objectives of self-realization, human relationships, economic efficiency, and civic responsibility. Students will have an opportunity to become entry-level job proficient as well as have a good background for furthering their post-secondary education.

**Yearbook-** (1 credit)

Yearbook is an elective course that gives students marketable experience in print media publishing. This course solely works toward the completion and selling of Washington Academy's yearbook the *Washington Record*. In class, students compose, construct, and edit all elements of computerized text layout, graphic art, and digital photography. In Yearbook class, students will complete the myriad of tasks to create a quality yearbook that reflects the pictorial history of the activities for the present school year including: develop a theme, design cover, create a workable ladder, determine photo ideas, organize sale and distribution of book, sell advertising, finalize completed computer pages, and establish and meet publication deadlines.

**Web Design -** (1 credit)

This is a beginning hands-on introduction to using HyperText Mark-Up Language (HTML) to create

web pages, which can be uploaded and displayed on the World Wide Web. Students will use HTML to create web pages with text in various sizes and colors, links to other sites, background color or patterns, graphics, and tables. Principles of design and color will be included.

**Marketing** - (1 credit)

This course provides a basic foundation for further study in marketing. Students study economic functions at work in the marketplace, marketing functions including purchasing, pricing, and distribution functions. This course is based on the business and marketing core that includes communication skills, economics, financial analysis, and promotion. Both marketing and employment skills learned will improve and increase the chance of successful transition into the world of work. Not only do high school marketing concepts prepare students to be competitive in ventures as adults, but they also reinforce life skills to ensure personal success.

**International Business**- (1 credit)

*Prerequisite: Junior or Senior standing.*

This course will allow students to demonstrate an understanding that a nation has a competitive advantage when it can produce a product at a lower cost than its trading partner. Students will be able to evaluate the effect on international trade of domestic policies which either encourage or discourage exchange of goods and services (e.g., quotas, tariffs, skilled labor, and stable government). Students will also learn the skills to be able to demonstrate an understanding of fundamental economic theories and be able to apply that knowledge in relationship to a global market. Finally, students will also be able to demonstrate an understanding of the influence of a nation's culture, geography, economic conditions, and political culture have on multi-national corporations' ability to succeed.

**Culinary Arts**- (1 credit)

This program is designed for students to work in the Washington Academy kitchen. These students will learn the basics of food preparation, nutrition, and meal planning. They will be under the supervision of the head cook.

## **Jobs For Maine's Graduates**

The Jobs for Maine's Graduates Program (JMG) meets all criteria of the Learning Results Career Preparation. We seek to identify and encourage the most successful approaches in career preparation among all our students. Through individual student selection, the program will serve students who need, want, and can benefit from JMG, thereby promoting more effective and consistent workforce education for all students. Jobs for Maine's Graduates offer employability skills, personal development skills, leadership skills, and social and civic responsibilities. Through community service projects, fundraisers, field trips, leadership conferences, and daily activities, which include guest speakers, job shadows, in-class discussions and special projects, the students will be able to focus more clearly on their future aspirations.

The Jobs for Maine's Graduates Program of Washington Academy commits, not only to successfully leading students to their chosen aspirations, but after the choice of post-secondary education or an immediate career, the specialist/teacher will follow the graduate for twelve months tracking the success of their choice, thereby creating a more positive career preparation based outcome.

**JMG Multi- Year Program-** (1 credit)

*Freshman, Sophomore, Junior Standing*

This program offers the student a chance to better him/herself in a variety of ways through academics, social development and personal responsibilities. The goal of the program is to have all students pass their core curriculum. Grades are very important and we strive to work with the student and their teachers keeping students' work current and testing more successful. The JMG students are also involved with community service projects, fundraisers, social events, career development, and leadership development. Only students who are willing to take part in these areas will be selected to participate in the JMG program.

**JMG Senior Program-** (1 credit)

The Senior Program assists seniors with the preparation of graduation, and their future career and/or post-secondary education choice. There is a competency-based curriculum that meets all Maine Learning Results Career Preparation standards. Through job shadowing, internships, work-studies, in-class discussions and other related activities, students will better understand the importance of attaining knowledge for a successful career in their chosen field. Students will learn how to write powerful resumes and cover letters, giving them a greater opportunity in job attainment. Students will actively be involved in community service and fundraising projects, giving them the opportunity to meet and be seen by the local business experts. After graduation, the JMG teacher will follow the graduating JMG students for 12 months, making sure the students have continued to achieve a positive outcome (full-time job, post-secondary education, part-time job, etc). Students willing to commit to this schedule of activities will be selected to participate in the JMG program.

## **Health Occupations**

**Certified Nurse Assistant-** (2 credits) (1 credit of Health and 1 Credit of Science)

*Prerequisite: Must be 16 years of age*

Nursing care is concerned with the basic needs of individuals who have physical, mental, social, and cultural dysfunctions. The C.N.A. with appropriate education and training is capable of giving nursing care under the supervision and delegation of the registered professional nurse in tasks, which support nursing practice. The objective of this course is to provide a means of acquiring basic nursing techniques and skills designed to furnish the graduate with entry-level skills in the health field. The experience gained as a Certified Nurse Assistant also enables the individual to consider and pursue upward mobility in health services as opportunities arise.

At the completion of this course, the student will be able to:

- a. Maintain a proper physical and emotional patient environment.
- b. Report and record observations.
- c. Provide assistance in personal hygiene.
- d. Assist with body movement and ambulation.
- e. Assist with nutrition and elimination.
- f. Assist in emergency situations.
- g. Communicate in an effective, positive manner.
- h. Assist the registered professional nurse to provide general patient care.

**Down East Community Hospital Internship- (1 credit)**

This course is designed to allow students to experience firsthand, the inner-workings of various aspects of the medical field. Participants will spend 3 hours per week at the Down East Community Hospital, while there they will shadow and interact with medical professionals and gain pertinent experience and knowledge. Students are required to comply with all hospital rules and regulations for interns. Assessment and credit will be determined on an individual basis according to time spent and work produced. This course may be done during the school day or after school hours and meets community service requirements for four years of Raider Time Advisory.

## **Vocational Technology**

This program intends to develop the attitude, knowledge, and skills necessary for employment in a marine industry. The curriculum seeks to connect students with the Maine maritime traditions of boat building, building, maintenance, repair, and restoration. Harbor and marina management will be explored. The outdoor portion of the program will offer students a chance to explore many opportunities available in the recreational watercraft industry. The unit intends to develop confidence and self-reliance by training students to handle small boats, canoes, and kayaks. Sail training is optional, based upon demand. Course work is primarily “hands on” and is focused upon developing safe, responsible craftsmen and self-reliance.

**Computer Aided Drafting (CAD) - (1 credit)**

\*\*Fine Arts Credit

Is there an Architect, Engineer or Designer inside of you? A Computer Aided Drafting is a technical drawing differs from a visual art drawing by how it is interpreted. A visual art drawing can hold many purposes and meanings. A technical drawing is intended to concisely communicate specifications that transform an idea into a physical form. Students interested in a career in architecture, construction, mechanical engineering or 3D rendering for another design field will have the opportunity to qualify for beginning drafting positions or obtain solid preparation for post secondary education in a technical design field. Individualized instruction allows students to learn design concepts at different levels and practice technical skills at their own speed.

**Students will:**

- Explore the art, culture, history & science of architecture.
- Complete tutorials of “AutoCAD”, “Chief Architect” & “Rhino” software.
- Practice the common elements for developing technical drawings & standardized prints.
- Generate architectural 2D orthographic prints and 3D perspective drawings.
- Render using “Raytracing” software” to create texture, shadowing, lighting & reflection.
- Edit virtual walkthrough videos of residential floor plans and landscaping.
- Draw orthographic prints of engineered parts (mechanical) using “AutoCAD”.
- Use Autodesk “3ds Max” to move beyond 3D to digital assembly animation.
- Build a scale model residential building.
- Create a personal career portfolio.

# Marine Vocational Technology

This program intends to develop the attitude, knowledge, and skills necessary for employment in a marine industry, preparation for higher education and to connect students with Maine maritime traditions, boat building and watercraft operation. The goal is to develop skilled craftsmen and responsible mariners.

## **Marine Technology I-** (1 credit)

Students will complete units in general workshop safety and the proper operations of industry related equipment, including hand tools, portable power tools, stationary machines and watercraft. Shop work will concentrate on introductory level composite boat building using the contact mold method. Classroom study will include lessons in personal health and safety, environmental issues, nautical terminology, marine nomenclature and marlinspike seamanship. Students will use a computerized numerical cutting machine (CNC) to build a small rowing skiff. The internet will be used for comprehensive research of boat builders, marine businesses, post secondary schools & marine museums. Outdoor activities will include rowing activities and small boat handling.

## **Marine Technology II-** (1 credit)

*Prerequisite: Successful Completion of Marine Technology I*

Students will complete units in general safety review and watercraft operations. Shop work will include the construction of a composite materials power boat using computerized numerical cutter (CNC). The opportunity to build a traditional wooden boat will also be available. Work in the classroom will include a study of nautical regulations, watercraft operations, legal requirements, ownership issues, terminology and nomenclature. Chart work, navigation and piloting exercises will be completed by using up-to-date computer software and by traditional methods. Outdoor activities will include field trips to marine businesses, post secondary marine trade schools & power boat handling activities.

## **Marine Engines 1-** (1-3 credits)

This course takes students into the world of a marine mechanic, basic operations of outboard, inboard/outboard, and inboard engines to include both gas and diesel. We will cover how the engines work, transmissions, reverse gears, lower units, cooling systems, proper preparation for storage and basic repairs and quick fixes. A basic safe boating course will be part of this class. The student does not need prior experience. Some mechanical ability is very helpful.

## **Marine Engines 2-** (1-3 credits)

*Prerequisite: Successful Completion of Marine Engines 1*

The student should have Intro to Marine Engines, good mechanical skills and a willingness to learn in depth and actual operation of gas and diesel engines, their advantages and disadvantages. Diagnosis of common problems, disassembly, parts identification and replacement of common problem parts and proper installation of wiring and safety gear will be covered.

## **Auto Tech-** (1 credit)

This course will familiarize the student with all aspects of owning and operating an automobile as well as basic diagnostic and repair of simple problems. Basic mechanical skills, parts identification, proper use of tools and their function will be covered. What to look for in a repair shop, and how to approach the repairs needed on their future automobile will also be covered

## **Industrial Arts and Technology**

As an integral part of the Washington Academy academic curriculum, Industrial Arts and Technology Education will enable students to:

3. Explore individual interests, aptitudes and talents.
4. Develop a basic understanding in a variety of technical areas.
5. Gain insight into the impact of technology on the quality of our lifestyles.
6. Acquire technical literacy to communicate effectively and remain competitive.
7. Learn safe work habits and skills in the use of materials, processes and tools.
8. Develop critical thinking, organizational and planning skills.

### **Carpentry- (½ credits)**

This course is intended to serve primarily freshman and sophomore students. Students who discover that they have a particular interest or aptitude for this type of work can continue developing their skills in the Marine Trades Vocational program. Juniors and seniors may also take this course. This course will introduce students to a design and manufacturing process. Safety and maintenance of hand and power tools used for wood and metal fabrication will be instructed. Students will be introduced to various trades that use the skills practiced in the industrial arts shop, such as boat builder, carpenter, welder, mechanic, architects, and electrician.

### **Introduction to Mechanical Trades- (½ credits)**

This course will help students develop attitudes and habits of safety in the shop. Students will learn to maintain and operate small internal combustion engines. Students will come to understand the theory of operation of both two stroke and four stroke cycle engines. Students will understand the theory of operation of both gasoline and diesel engines. Students will experiment with the manufacturing of bio-diesel fuel, made from recycled vegetable oil. By the end of the class student will operate a small diesel engine on bio-diesel fuel.

## **Special Education**

Students who are identified with special needs have individualized programs agreed upon by a team of professionals to meet their needs and concerns. It is therefore necessary to develop programming on an individual basis for students with Individualized Education Plans (IEPs) and 504 accommodation plans to help them to make measurable progress in the academic year. Programs include individual, small group, or support services for all special education students. There is also a combination of all three types of support used to help our students meet their annual goals and succeed academically.

The following is a list of courses/services offered through the Special Services Department:

- A. Remedial English 4 courses
- B. Remedial Math 4 courses
- C. Support Study Hall (504)

### **Remedial English- (1 credit annually)**

Remedial English courses are based on the individual needs of the student. The goal is to assist the student with making progress in all areas of communication, reading, writing, and oral expression.

Students receive direct instruction through reading programs, grammar, the writing process, and oral communication.

**Remedial Math** – (1 credit annually)

Remedial Math courses are based on the individual needs of the student. The goal is to help the student become more proficient in all areas of mathematics with a focus on independent living skills. The goal is to acquire the needed math skills to successfully return to the general curriculum.

Students will receive direct instruction for the fundamentals in basic math skills such as fractions, decimals, percents, checkbook use, budget planning, basic algebra and measurement. In conjunction with direct instruction we utilize an online tutorial program.

**Support Study Hall** (No credit)

Support Study Hall is provided for all identified students for the purpose of teaching the self-study skills they will need in order to successfully complete regular education courses.

## **Affirmative Action Statement**

Washington Academy does not discriminate in the educational and employment policies, programs, and practices which it operates and will honor all appropriate laws relating to discrimination in regard to: race/color, sex, religion, ancestry, national origin, age, physical/mental handicap. The state and federal laws affecting this policy are: 5 M.R.S.A. #4451, and #65, Civil Rights Act of 1964, Title VI, Rehabilitation Act of 1973, Section 504; and Educational Amendments, 1972, Title IX.