

NATICK HIGH SCHOOL

COURSE DESCRIPTIONS

CLASS OF 2029

FRESHMAN GUIDANCE SEMINAR 14

0.50 Credits/Semester

Course #GU1

Freshman students participate in Guidance Seminar during the fall semester (term 2). Each student is scheduled into a seminar which meets during the CDS block once per cycle, and is taught by their own guidance counselor. Freshmen cover a variety of topics focusing on the transition to Natick High School. Topics include, but are not limited to, relationship building, school involvement, time management exercises, school resources, mid-year exams, semester grading, and community service. Students are also led through a peer empathy unit designed to foster empathy and an affirmative school community and climate.

WELLNESS I 14

2.50 Credits/Semester

Course #WE101a, WE101b

(Semester)

Wellness I is a one-semester course designed to provide basic knowledge about physical fitness, its importance, and application. Students are led through a fitness center orientation where policies and procedures are covered, as well as proper use of the various equipment. The curriculum is based on the five health-related components of fitness and how they contribute to optimal wellness. Principles of strength training, elements of cardiovascular health, basic anatomy and physiology, and the elements of a personal fitness plan are topics covered during the course. All students have the opportunity to become CPR-certified. Polar heart rate monitors will be utilized to enhance the understanding of the benefits of training in target heart rate zones.

FRESHMAN ENGLISH 10

2.50 Credits/Semester

Course #EN110

(Full Year)

This honors college preparatory course is designed to challenge students with exceptional interest in literature and writing. They are expected to have advanced organizational and study skills. These classes require most reading and writing to be done independently, and students are expected to understand literature both concretely and abstractly. Students should be prepared to read up to two texts at one time, move at a quicker pace, and independently manage long-term projects. The literary selections may include *Romeo and Juliet*, *To Kill a Mockingbird*, *The Absolutely True Diary of a Part-Time Indian*, *The Odyssey*, *The House on Mango Street*, and other thematically related works. Writing assignments will include explanatory, informational, argumentative, and narrative writing. The vocabulary program is challenging, focused on words drawn from the course readings. The curriculum for this class is in accordance with the Common Core State Standards and will provide an excellent foundation for the MCAS 2.0 and the PSAT/SAT exams. *Prerequisite: A- in Grade 8 English course with teacher recommendation.*

FRESHMAN ENGLISH 11

2.50 Credits/Semester

Course #EN111

(Full Year)

This college preparatory course is designed to assist students in their acquisition of study skills, reading strategies, writing proficiency, vocabulary enhancement, and analytical skills. In these classes, students will be guided in literary interpretation in order to understand literature both concretely and abstractly. Literary selections may include *Romeo and Juliet*, *To Kill A Mockingbird*, *The Absolutely True Diary of a Part-Time Indian*, *The House on Mango Street*, and other thematically related texts. The writing component will consist of explanatory, informational, argumentative, and narrative writing. The vocabulary program is challenging, focused on words drawn from the course readings. The curriculum for this class is in accordance with the Common Core State Standards and will provide an excellent foundation for the MCAS 2.0 and the PSAT/SAT exams. *Prerequisite: Successful completion of Grade 8 English.*

GLOBAL AWARENESS 11**2.50 Credits/Semester****Course #SS111****(Full Year)**

In this Grade 9 advanced college preparatory class, students will examine the political, social, and economic development of our world. First semester will be a chronological study of World History. Topics will include: the Industrial Revolution & Social/Political change in Europe; Asian/African/Latin American 20th century history; World Wars; the Cold War Era. Using a project-based learning model, the second semester will focus on more current topics including: Globalization, International Economics, Human Rights, Technology, Energy, and Environment. This course develops and reinforces the use of primary sources, library and research techniques, formulation and testing of hypotheses, map reading, and geography skills. Students will learn to collect, organize, and interpret data, and will understand cause-and-effect relationships within a chronological structure. *Note: This is a graduation requirement.*

ALGEBRA I 10**2.50 Credits/Semester****Course #MA110****(Full Year)**

This honors-level college preparatory course will provide a rigorous study of traditional Algebra topics including solving equations and inequalities, graphing and solving both linear and quadratic equations, solving systems of equations, properties of exponents, polynomials, and factoring. This course is designed to build on students' prior understanding of Algebra and to develop the solid foundation needed to succeed throughout the high school math curriculum. *Prerequisite: This course is open to students who have completed Grade 8 Algebra I at the middle school level and would like to strengthen their understanding of Algebra. It is also open to students who earned a grade of B+ or better in the Grade 8 Mathematics or department head approval.*

ALGEBRA I 11**2.50 Credits/Semester****Course #MA111****(Full Year)**

This advanced college preparatory course is designed to provide a solid foundation of Algebra for the college-bound student. Topics will include solving equations and inequalities, graphing and solving linear equations, solving quadratic equations, solving systems of equations, properties of exponents, polynomials, and factoring. Compared to Algebra 10, Algebra 11 has more time built in for review, and contains a somewhat less rigorous level of in-depth study in some areas. *Prerequisite: This course is recommended for students who participated in Grade 8 Mathematics or for those who took Grade 8 Algebra I and would like to strengthen their understanding of Algebra.*

GEOMETRY 20**2.50 Credits/Semester****Course #MA210****(Full Year)**

The objective of this rigorous honors course is for students to develop an understanding of the mathematics of spatial forms and how this branch of mathematics lends itself to the art of reasoning. It places considerable emphasis on fundamental principles of logic and proofs, and the role they play in the inductive and deductive processes. Postulates and theorems are critically examined and subsequently applied to a detailed study of angles, triangles, quadrilaterals, perpendicularity and parallelism. Students will study right triangle trigonometry. Although mastery of concepts in two-dimensional Geometry is the primary goal of the course, three-dimensional concepts are also introduced. *Prerequisite: Students must have earned a grade of B or better in Algebra I (10) or a grade of A+ or better in Algebra I (11)*

GEOMETRY 21**2.50 Credits/Semester****Course #MA211****(Full Year)**

This advanced college preparatory course will largely parallel the topics of the Geometry 20 course, with somewhat less emphasis on the theoretical aspects of Geometry. Topics to be explored include deductive reasoning, properties of triangles and special right triangles, polygons, circles, area, volume, and similarity and right triangle trigonometry. Students will learn to apply these concepts to numerous real-world models.

Prerequisite: Generally, students must have successfully completed Algebra I. Sophomores who have not completed Algebra I may take this course and Algebra I concurrently.

AP PHYSICS 1 L 10

3.00 Credits/Semester

Course #SC510

(Full Year)

AP Physics 1 will follow the College Board Physics curriculum for Physics 1. AP Physics 1: Algebra-based is equivalent to a first-semester college course in Algebra-based physics. The course is organized around seven foundational big ideas in physics:

- Big Idea 1: Objects and systems have properties such as mass and charge.
- Big Idea 2: Fields existing in space can be used to explain interactions.
- Big Idea 3: The interactions of an object with other objects can be described by forces.
- Big Idea 4: Interactions between systems can result in changes in those systems.
- Big Idea 5: Changes that occur as a result of interactions are constrained by conservation laws.
- Big Idea 6: Waves can transfer energy and momentum from one location to another without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena.
- Big Idea 7: The mathematics of probability can be used to describe the behavior of complex systems and to interpret the behavior of quantum mechanical systems.

To understand these big ideas, the course will examine Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves, and sound. It will also introduce electric circuits. To meet MCAS standards, a unit on thermodynamics (heat and temperature) will be added after the AP exam in preparation for the MCAS test. The course content, instructional methods, and assessment techniques are consistent with the College Board Standards for an Advanced Placement course, Massachusetts Curriculum Frameworks, and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Introductory Physics MCAS test. *Prerequisite: A in Grade 8 Science and Algebra I to receive teacher recommendation to take a placement test. Must receive a qualifying score on the placement test (given each spring), and permission of the high school science department head.*

PHYSICS L 10

Course #SC110

2.50 Credits/Semester

(Full Year)

This is an honors-level college preparatory laboratory-based physics course for ninth graders with a strong interest and ability in science and mathematics. The course prepares students for successful completion of the science MCAS requirement. The course is designed to introduce students to the laws of physics, the experimental skills including the mathematical aspect of problem-solving required in physics, and the social and historical aspects of physics as an evolving body of human knowledge about nature. Students will study concepts involving measurement, mechanics, waves and sound, magnetism, and momentum and energy. The course content, instructional methods, and assessment techniques are consistent with Massachusetts Curriculum Frameworks. Students are expected to be self-motivated, able to work independently as well as in small groups, and complete laboratory work outside of the classroom. Students will be prepared to demonstrate proficiency on the Introductory Physics MCAS test. *Prerequisite: A in Grade 8 Science and either an A in Grade 8 Math or a B in Algebra I to **receive teacher recommendation**.*

PHYSICS L 11

2.50 Credits/Semester

Course #SC111

(Full Year)

Physics 11 is the foundation laboratory science advanced college preparatory course at Natick High School that emphasizes concepts in physics that are seen in everyday life. A significant portion of the course will stress the development of conceptual understandings of physical laws and relationships. As such, students investigate physical phenomena and mathematical models that explore the themes of energy, motion, and electromagnetism. Instruction will focus on developing a student's understanding that scientific knowledge is gained from observation of natural phenomena and experimentation. Designing and conducting investigations

guided by theory and evaluating and communicating the results of those investigations will be at the heart of the course. Other instructional strategies include projects and problem-solving exercises. The course content, instructional methods, and assessment techniques are consistent with Massachusetts Curriculum Frameworks and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Introductory Physics MCAS test. Prerequisite: Completion of Grade 8 Mathematics and Science.

FRENCH LANGUAGE 11

2.50 Credits/Semester

Course #WL117

(Full Year)

During this course, students will begin to develop their ability to communicate in French and interact based on cultural knowledge and understanding. Students will deepen their knowledge of French and the Francophone cultures through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied.

Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks.

By the end of this course students will be expected to perform at the emerging Novice High level. This is demonstrated by communicating with memorized words and phrases along with some original basic sentences. This is done in one time frame, the present, and focuses most often on themselves. Students are working consistently to create original basic sentences and to add details. During each unit of study students will demonstrate their cultural knowledge and understanding by identifying products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts.

Students who successfully complete this course will move to the French Language 21 course.

FRENCH LANGUAGE 30

2.50 Credits/Semester

Course #WL136

(Full Year)

During this course, students will continue to develop their ability to communicate in French and interact based on cultural knowledge and understanding. Students will deepen their knowledge of French and the Francophone cultures through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied. Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks.

By the end of this course students will be expected to perform at the emerging Intermediate Mid Proficiency level. This is demonstrated by consistently communicating in detailed connected sentences, mostly in one time frame, but beginning to include details in another time frame. Students are organizing communication in paragraph style and communicate on familiar topics with ease. During each unit of study students will demonstrate their cultural knowledge and understanding by making comparisons between products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Prerequisite: A or better in French Language 21 or Grade 8 French or an A- and teacher recommendation in French Language 21 or Grade 8 French or Department Head approval.*

FRENCH LANGUAGE 31

2.50 Credits/Semester

Course #WL137

(Full Year)

During this course, students will continue to develop their ability to communicate in French and interact based on cultural knowledge and understanding. Students will deepen their knowledge of French and the Francophone cultures through exploration of cultural products, practices and perspectives by interpreting

authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied. Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks.

By the end of this course students will be expected to perform at the emerging Intermediate Mid Proficiency level. This is demonstrated by communicating in detailed connected sentences, mostly in one time frame, and making attempts to include details in another time frame. Students are working to organize communication in paragraph style and communicate on familiar topics with ease. During each unit of study students will demonstrate their cultural knowledge and understanding by making comparisons between products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Prerequisite: Final grade of C- or better in French Language 21 or 8th grade French*

SPANISH LANGUAGE 11

2.50 Credits/Semester

Course #WL217

(Full Year)

During this course, students will begin to develop their ability to communicate in Spanish and interact based on cultural knowledge and understanding. Students will deepen their knowledge of Spanish and Hispanic cultures through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied.

Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks. By the end of this course students will be expected to perform at the emerging Novice High level. This is demonstrated by communicating with memorized words and phrases along with some original basic sentences. This is done in one time frame, the present, and focuses most often on themselves. Students are working consistently to create original basic sentences and to add details. During each unit of study students will demonstrate their cultural knowledge and understanding by identifying products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Students who successfully complete this course will move to the Spanish Language 21 course.*

SPANISH LANGUAGE 12

2.50 Credits/Semester

Course #WL218

(Full Year, Placement by Department Head only)

In this college preparatory course, students are introduced to the five C's of foreign language learning: communication, culture, connections, comparisons and communities. Students will learn the fundamental structures of the language by engaging in brief conversations, directed dialogues, and a variety of oral/aural activities, as well as short readings and writing activities. Although all skills are practiced, the listening and speaking skills are emphasized. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. *Students who successfully complete the Spanish 12 course will move to the Spanish 22 class.*

SPANISH LANGUAGE 30

2.50 Credits/Semester

Course #WL236

(Full Year)

During this course, students will continue to develop their ability to communicate in Spanish and interact based on cultural knowledge and understanding. Students will deepen their knowledge of Spanish and Hispanic cultures through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the

language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied.

Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks. By the end of this course students will be expected to perform at the emerging Intermediate Mid Proficiency level. This is demonstrated by consistently communicating in detailed connected sentences, mostly in one time frame, but beginning to include details in another time frame. Students are organizing communication in paragraph style and communicate on familiar topics with ease. During each unit of study students will demonstrate their cultural knowledge and understanding by making comparisons between products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Prerequisite: A or better in Spanish 21 or Grade 8 Spanish or an A- and teacher recommendation in Spanish Language 21 or Grade 8 Spanish or Department Head approval.*

SPANISH LANGUAGE 31

2.50 Credits/Semester

Course #WL237

(Full Year)

During this course, students will continue to develop their ability to communicate in Spanish and interact based on cultural knowledge and understanding. Students will deepen their knowledge of Spanish and Hispanic cultures through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied.

Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks. By the end of this course students will be expected to perform at the emerging Intermediate Mid Proficiency level. This is demonstrated by communicating in detailed connected sentences, mostly in one time frame, and making attempts to include details in another time frame. Students are working to organize communication in paragraph style and communicate on familiar topics with ease. During each unit of study students will demonstrate their cultural knowledge and understanding by making comparisons between products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Prerequisite: Final grade of C- or better in Grade 8 Spanish, or final grade of C- or better in Spanish Language 21.*

SPANISH LITERATURE AND CULTURE 40

2.50 Credits/Semester

Course #WL268

(Full Year)

This honors course is for students whose first language is Spanish, or Spanish is primarily spoken at home, or for those students who have reached a high level of proficiency and desire to dive into a literary and culture course. This course will require students to work with Spanish literature at an accelerated pace, focusing on short stories, poems, and novels by a variety of authors on the themes of literary creation and interpersonal relationships. This course will also touch upon Spanish and Hispanic cultures and history and its correlation to the texts read in class. Students will also continue to work on their grammar, writing, and speaking skills to prepare dialogues, journal entries, and presentations. Students will work as a cohort, working together for 3 years with a goal of finishing with the AP Spanish Literature exam. All classwork and assignments will be done in Spanish. *Prerequisite: Recommendation of teacher.*

MANDARIN LANGUAGE 30

2.50 Credits/Semester

Course #WL536

(Full Year)

During this course, students will continue to develop their ability to communicate in Mandarin and interact based on cultural knowledge and understanding. Students will deepen their knowledge of Mandarin and Chinese culture through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the

language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied.

Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks. By the end of this course students will be expected to perform at the emerging Intermediate Mid Proficiency level. This is demonstrated by consistently communicating in detailed connected sentences, mostly in one time frame, but beginning to include details in another time frame. Students are organizing communication in paragraph style and communicate on familiar topics with ease. During each unit of study students will demonstrate their cultural knowledge and understanding by making comparisons between products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Prerequisite: A or better in Grade 8 Mandarin Chinese or an A- and teacher recommendation in Grade 8 Mandarin Chinese or Department Head approval.*

MANDARIN LANGUAGE 31

2.50 Credits/Semester

Course #WL537

(Full Year)

During this course, students will continue to develop their ability to communicate in Mandarin and interact based on cultural knowledge and understanding. Students will deepen their knowledge of Mandarin and Chinese culture through exploration of cultural products, practices and perspectives by interpreting authentic resources, such as audios, videos, texts and tangible objects from the target cultures. Learners will use the language to investigate, explain and reflect upon the relationships between practices and perspectives as well as products and perspectives of the cultures studied.

Students will complete activities and assessments in the three modes of communication (interpersonal, interpretive and presentational) based on unit themes that integrate standards from the ACTFL's Proficiency Guidelines and the Massachusetts World Languages Curriculum Frameworks. By the end of this course students will be expected to perform at the emerging Intermediate Mid Proficiency level. This is demonstrated by communicating in detailed connected sentences, mostly in one time frame, and making attempts to include details in another time frame. Students are working to organize communication in paragraph style and communicate on familiar topics with ease. During each unit of study students will demonstrate their cultural knowledge and understanding by making comparisons between products and practices to help understand perspectives in their own culture and the target culture, as well as interacting in the target language at a functional level in some familiar contexts. *Prerequisite: C- or better in 8th grade Mandarin Chinese.*

SCIENCE ELECTIVES

ADVENTURES IN AERONAUTICAL ENGINEERING L 11

2.50 Credits/Semester

Course #SC617a, SC617b

(Semester 2 for Grade 9, Semester 1 or 2 for Grades 10-12)

This one-semester class introduces students to a new hobby—building and flying radio-controlled airplanes. Students will create two airplanes chosen by the instructor and then have time to find, build, and fly their own radio-controlled airplanes. Students who provide their own flight electronics will be able to take their airplane home at the end of the semester. *Prerequisite: The course assumes no previous engineering knowledge, but students should be concurrently enrolled in college preparatory mathematics and science and have successfully completed at least the first semester of 9th Grade physics.*

ENGINEERING PROJECTS L 11

2.50 Credits/Semester

Course #SC611a, SC611b

(Semester, Open to Grades 9-12)

Design is the process of planned change. It is truly a problem-solving technique. Creative and practical problem-solving is useful in all aspects of life, not just in the field of design. In engineering design, new ideas are developed through drawing, building, testing, and redesigning. In this course, students use what they know and find what they are passionate about as they follow the engineering design process to develop unique solutions to improve the world around them while developing a methodology and structure for their own thinking and creative process.

CIVIL ENGINEERING AND ARCHITECTURE L 11**2.50 Credits/Semester****Course #SC619a, SC619b****(Semester 2 for Grade 9, Semester 1 or 2 for Grades 10-12)**

From understanding and analyzing cultures, sites, and structures, to communicating ideas, students in Civil Engineering and Architecture explore the possibilities of merging the natural and built environments around us. Students design for sustainability as they draft construction documents and build scale models of their designs while developing creative visual practice, developing analytic skills, and enhancing cultural awareness. The projects completed by students in this course can be used in portfolios for admission to architectural design programs. *Prerequisites: Successful completion of Engineering Projects 11.*

THEMES IN ENGINEERING L 11**2.50 Credits/Semester****Course #SC614a, SC614b****(Semester, Open to Grades 9-12)**

This one-semester course answers the question, "What is it like to work as an engineer?". Students learn about engineering disciplines by completing projects illustrating engineering disciplines, including electrical engineering, computer engineering, mechanical engineering, chemical engineering, and industrial engineering. Students practice the engineering process, learn how to self-teach new skills, and gain experience in engineering tools such as MathWorks MATLAB. In the capstone project, students research the field of engineering that interests them the most and present their findings about areas of study, colleges, and careers in the discipline.

MATLAB I 11**2.50 Credits/Semester****Credits/Semester****Course #SC621a, SC621b****(Semester, Open to Grades 9-12)**

Natick's own MathWorks is the leading developer of mathematical computing software for engineers and scientists. Its flagship product, MATLAB, is ubiquitous across engineering development and scientific research in dozens of fields, including aeronautical engineering, computational biology, semiconductor design, and self-driving cars. Students who become certified MATLAB associates will demonstrate STEM mastery on college applications and will bring valuable skills to internship opportunities.

This one-semester course teaches students how to use MATLAB to deliver STEM schoolwork at Natick High School. MATLAB makes it easy to deliver lab reports and other STEM assignments. Students completing MATLAB I can take MATLAB II to prepare for the certified MATLAB associates test.

MATLAB II 11**2.50 Credits/Semester****Course #SC622b****(Semester, Open to second semester Grade 9, and Grades 10-12)**

Natick's own MathWorks is the leading developer of mathematical computing software for engineers and scientists. Its flagship product, MATLAB, is ubiquitous across engineering development and scientific research in dozens of fields, including aeronautical engineering, computational biology, semiconductor design, and self-driving cars. Students who become certified MATLAB associates will demonstrate STEM mastery on college applications and will bring valuable skills to internship opportunities.

MATLAB II completes the students' understanding of MATLAB fundamentals and introduces students to MATLAB Toolboxes. Toolboxes deliver ready-to-use solutions to a wide variety of topics, such as robotics control, machine learning, and biological sciences. At the end of the semester, students who are 18+ years old will be able to take the Certified MATLAB Associate test. *Prerequisites: Students must complete MATLAB I with a passing grade or permission from the instructor.*

ROBOTICS L 11**2.50 Credits/Semester****Course #SC615a, SC615b****(Semester, Open to Grades 9-12)**

Students explore robotics in an interactive classroom where they can mix technology with creativity to make machines/robots that implement their instructions. Students will learn Arduino C++ programming using simulators and robots to control robot behaviors. They will learn advanced programming techniques such as state machine design and introductory control systems. *Prerequisite: The course assumes no previous engineering knowledge, but students should be concurrently enrolled in college preparatory mathematics and science.*

ADVANCED INVENTIVE ROBOTICS L 11

2.50 Credits/Semester

Course #SC612a, SC612b

(Semester, Open to second semester Grade 9, and Grades 10-12)

In this robotics seminar, students will create robots that can compete in the annual game defined by the nationwide FIRST Tech Challenge (FTC) competition. In this self-directed, one-semester seminar, students will team up and use Onshape CAD software to design their entry to the FTC game and compete against each other. Students will learn CAD and advanced C++ programming on Arduino. *Prerequisites: Students must complete Robotics with a passing grade or permission from the instructor.*

MATH ELECTIVES

INTRO TO COMPUTER SCIENCE 11/10

2.50 Credits/Semester

Course #MA613a, MA613b, MA612a, MA612b

(Semester)

In this course students will learn Python, independently and in groups, exploring common programming concepts. Students will create their own programs getting exposure to key computer science concepts through a graphical user interface, working at their own pace. Students create content such as graphics images and adventure style games, and explore additional concepts as time allows. Students enrolled at the honors level will complete additional modules and projects. At the conclusion of this course, students will be prepared for AP Computer Science Principles or AP Computer Science A. *Prerequisite: None*

(This course is also a great introductory course and could build interest for the following courses: Intro to Web Design, Animation, Game Design, and Robotics)

INTRO TO COMPUTER SCIENCE; WOMEN IN CS 11/10

2.50 Credits/Semester

Course #MA615a/b, MA616a/b

(Semester)

This course covers the same material as other Intro to Computer Science courses with an additional emphasis on celebrating women who code. This course creates a collaborative space for all to learn and create in Python. Students will create their own programs getting exposure to key computer science concepts through a graphical user interface at their own pace. Students create content of their own design such as graphical images and adventure style games and explore additional concepts as time allows. Additionally, students will learn about successful women in the coding field and their accomplishments. Students enrolled at the honors level will complete additional modules and projects. At the conclusion of this course, students will be prepared for AP Computer Science Principles and AP Computer Science A. This course is open to all students regardless of gender identity. *Prerequisite: None*

(This course is also a great introductory course and could build interest for the following courses: Intro to Web Design, Animation, Game Design, and Robotics)

CREATING MOBILE APPS 11

2.50 Credits/Semester

Course #MA614a, MA614b

(Semester)

In this one semester project-based course, students will design and create apps on their own mobile devices (additional devices are provided in class). Students will create a variety of apps of their choosing, exploring user experiences through layout designs and engagement. Students will utilize features such as animation, drawing, and movement, and integrate tools such as Google Maps, messaging, and AI. Students will finish the semester by creating their own fully functioning app they can proudly share. *Prerequisite: None*

(This course is also a great introductory course and could lead into the following courses: Intro to CS, Intro to Web Design, Animation, Intro to Game Design, Robotics, and AP Computer Science.)

SOCIAL STUDIES ELECTIVES

INTRODUCTION TO ECONOMICS 11

2.50 Credits/Semester

Course #SS616a, SS616b

(Semester, Open to Grades 9-12)

Have you ever wondered why gas companies set up gas stations right across the street from a competitor's location? Why do some fast food companies offer your meal free if the cashier does not give you a receipt? Why do sports stars get paid more than doctors? Maybe you have been wondering what people mean when they talk about the 'fiscal cliff', 'the national debt' and 'the deficit'. Using models and simulations, this semester class will explore the reasons behind the economic choices that individuals, companies, and governments make. We will also explore the ways that economists try to measure the economy and economic activity as well as how governments examine and use different policies to produce change in the economy.

AFRICAN AMERICAN HISTORY I 11

2.50 Credits/Semester

Course#SS618a

(Semester 1 Only, Open to Grades 9-12)

This heterogeneous advanced college preparatory class will examine African American History from the beginning of Slavery through Reconstruction. It will cover major events of this period: Development of Slavery, Atlantic Passage, Slave Life, Slave Rebellion, Abolitionist Movement, Civil War, and Reconstruction. The course will include a variety of active learning activities such as lectures, debates, and group presentations. Selected reading and research projects will be required. This will be a one-semester class. Students can choose to take the second part as well.

AFRICAN AMERICAN HISTORY II 11

2.50 Credits/Semester

Course#SS619b

(Semester 2 Only, Open to Grades 9-12)

This heterogeneous advanced college preparatory class will examine modern African American History after Reconstruction. It will cover major events of this period: Development of Segregation and Jim Crow, Suffrage, The Great Wars, Civil Rights Era, and Current Issues. The course will include a variety of active learning activities such as lectures, debates, and group presentations. Selected reading and research projects will be required. This will be a one-semester class. African American History I is **not** a prerequisite for this class.

FAMILY CONSUMER SCIENCE

INTRODUCTION TO CHILD GROWTH 11

2.50 Credits/Semester

Course #SS811a

(Semester 1 Only, Open to Grades 9-12)

In this one-semester advanced college preparatory class students will be introduced to the basics of child development from pregnancy through school age. Students will learn about the developmental domains and milestones that are used to assess children's development. The basics of caring for children and babysitting are emphasized, including physical care, safety, behavior management and developmentally appropriate activities for children. Students will learn how caregivers can foster healthy development in children as well as resilience for when challenges occur. Students will also have the chance to interact with children in the preschool in an introductory fashion. *Note: This class is open to all grades, but **priority will be given to freshmen**.*

CHILD PSYCHOLOGY 11

2.50 Credits/Semester

Course #SS813b

(Semester 2 Only)

In this one-semester advanced college preparatory class, students will study the foundational topics within child psychology. Students will analyze and critique popular child development theories with an emphasis on their real-world application. Students will explore the interplay between genetics and environment in shaping a child's development. They will also explore the most up-to-date information on contemporary topics including: resilience, toxic stress, and our current understanding of major child psychological disorders. *NOTE: This class is open to all grades, but priority will be given to sophomores and juniors.*

VISUAL ARTS

ART FOUNDATIONS: IDEAS, CONCEPTS AND SKILLS 11

2.50 Credits/Semester

Course #FA101a, FA101b

(Semester, Open to Grades 9-12)

This advanced college preparatory class is a foundation course designed to introduce students to the Basic Elements of Art and Principles of Design. Topics will include: drawing, painting, color theory, sculpture, as well as combining text and visual to create a work of art. Students will develop a sense of design and organizational skills by working in various mediums. Students will strengthen skills in generating ideas through two and three-dimensional projects. *Prerequisite: None*

CERAMICS I 11

2.50 Credits/Semester

Course #FA111a, FA111b

(Semester)

This advanced college preparatory course is a comprehensive class designed to provide students with a strong foundation in the use of clay as an art medium. Students will create functional and sculptural pieces. They will also learn the three basic hand building techniques-pinch, coil, and slab. Other topics include a basic use of the potter's wheel, surface decoration, and a basic understanding of the firing process. Emphasis will be given to the development of a personal style. *Prerequisite: None.*

CERAMICS II 21

2.50 Credits/Semester

Course #FA211a, FA211b

(Semester)

This advanced college preparatory course, building on the technical and artistic concepts introduced in Ceramics 1, is designed for students who wish to pursue their interest in ceramics in greater detail. Ceramics II is structured to provide a broad range of experiences that students can draw from and incorporate into their own personal process. A major focus will be on decorating techniques and work on the potter's wheel. Students will develop a body of work to exhibit within the community. Class critiques, as well as, the study of past and contemporary ceramic artists will be an important piece of this class. *Prerequisite: Grade of B in Ceramics I 11*

DRAWING 11

2.50 Credits/Semester

Course #FA117a

(Semester 1 only, Open to Grades 9-12)

This course is intended as an introduction to the artistic medium of drawing. Throughout this course, students will utilize a variety of media to strengthen their observational skills. Through still-life, portraiture, and perspective students will explore multiple approaches to representing visual experience. Students will be able to make informed and deliberate decisions about media, technique, and composition. Students will leave this course with a strong foundation in critical observational drawing skills. This course is a prerequisite for those students interested in pursuing Painting I, Honors Portfolio, and AP Art. *Prerequisite: None*

PAINTING 11

2.50 Credits/Semester

Course #FA119b

(Semester 2 only, Open to Grades 9-12)

This course is an introduction to the artistic medium of painting. Using skills previously taught in Drawing, students will explore various skills in paint to strengthen their skills in color mixing and observational painting. Through still-life and portraiture, students will work and gain greater experience with color and observation in order to further explore their own sense of style and artistic voice. Students will be able to make informed and deliberate decisions about media, technique and composition. Students will leave this course with a strong foundation in observational painting skills. *Prerequisite: Grade of B or better in Drawing.*

DIGITAL PHOTOGRAPHY 11

2.50 Credits/Semester

Course #FA113a, FA113b

(Semester, Open to Grades 9-12)

Digital Photography is an advanced college preparatory course and will introduce students to photography as an art form. Students will create original photographs and learn techniques for digitally manipulating images

using Photoshop. Taking photographs will be regularly assigned as homework, and class time will focus on discussion, critique, and digital manipulation of work. Through critique and lecture, students will develop the ability to capture photographs with an intentional application of the elements of design and composition. Context for the work will be established through learning about the historical development of photography as it relates to the history of art, and how contemporary photographers use the medium today. Students will work within this context to create work that is personally meaningful, socially relevant, and aesthetically aware.

Prerequisite: None

GRAPHIC DESIGN 11

2.50 Credits/Semester

Course# FA131a, FA131b

(Semester, Open to Grades 9-12)

This is an introductory, project-based class for those students interested in graphic art and design. This course will focus on print media and illustrate how the use of effective design helps to convey ideas and messages to an audience. Through the creation of various projects such as a collage, book cover, and magazine spread students will learn the basics of the Adobe visual design suite (Photoshop, Illustrator and InDesign). Other topics covered in the class are typography and graphic design history. This class will prepare students with the knowledge needed to move up to Advanced Graphic Design where they will create specific print design projects, work collaboratively, and continue building the skills needed to move to Advanced Graphic Design II where they will prepare to take the Adobe Certified Professional (ACP) exam. *Prerequisite: None*

ADVANCED GRAPHIC DESIGN I 21

2.50 Credits/Semester

Course #FA231b

(Semester 2, Open to second semester Grade 9, and Grades 10-12)

This course will provide students with an opportunity to take the skills they learned in Intro to Graphic Design and apply them to more in-depth, specific print design projects, while diving deeper into Adobe Illustrator. Students will learn about typography, packaging design, visual identity & branding, poster and promotional design. Students will also begin to understand the process of working with a client by collaborating with a partner and taking on the roles of client and designer. Through this work, students will prepare to take the Adobe Certified Professional (ACP) certification exam in Advanced Graphic Design II. *Prerequisites: Grade of B or better in Graphic Design 11*

CREATING GRAPHIC NOVELS 11

2.50 Credits/Semester

Course #FA133a, FA133b

(AKA GRAPHIC NOVELS 11)

(Semester, Open to Grades 9-12)

This is a project-based course that will introduce students to creating graphic novels and comics as a literary art form. Students will create art and write stories throughout the course, which includes following the writing process, developing storyboards, script writing, and sequencing a story. At the end of this course students will leave with their own graphic novel short story, made to be included in a physical copy anthology book printed and included in the school's library. *Prerequisite: None*

PRINTMAKING 11

2.50 Credits/Semester

Course #FA115b

(Semester 2 only)

Printmaking is a project-based course in which students will develop individual imagery and explore printing techniques to create original artwork. Printing allows for the production of multiples with opportunities for variation and reworking of images as well as printing on textiles. Techniques include screen print, monotype, monoprint, relief, collagraph, and drypoint engraving. Students will expand their visual repertoire and critical thinking skills in order to become more expressive and aesthetically aware in their artwork. This course is accessible to beginners but can be equally rewarding for the advanced art student looking to expand their practice. *Prerequisite: None*

SKETCHBOOKING 11

2.50 Credits/Semester

Course #FA103a, FA103b

(Semester, Grades 9-12)

Sketchbooking is an introductory course designed for students interested in media exploration and personal reflection. Course assignments begin with covering and reviewing the fundamentals of drawing then progress to material experimentation. Students are required to maintain a digital portfolio throughout the course to document personal artistic growth and development. *Prerequisite: None*

ADVANCED SKETCHBOOKING 21

2.50 Credits/Semester

Course #FA203b

(Semester 2, Grades 9-12)

Advanced Sketchbooking is a project based course designed for students that are self motivated, eager to take risks, create and explore. The first term of the course is composed of different exercises focusing on artists, artistic styles, materials, techniques and color theory exercises. The second term will focus on the development of a personal thematic concentration using the artistic styles, materials, techniques, and theories as inspiration.

Prerequisite: Grade of B or better in Sketchbooking 11.

MEDIA ARTS ELECTIVES

VIDEO PRODUCTION 11

2.50 Credits/Semester

Course #FA151a, FA151b

(Semester, Open to Grades 9-12)

Students will learn the basics of video production: filming, editing, directing and scriptwriting. They will be able to take their video projects to the next level by learning proper camera and editing techniques. Projects will include the creation of short films in a variety of genres such as silent films, short narratives, documentaries and music videos. Students will also study various elements of cinema that they will implement into their work. By the end of the semester, students will have the skills to turn a concept into a finished film. Students of all skill levels will be comfortable in this college preparatory class. *Prerequisite: None.*

ADVANCED VIDEO PRODUCTION 11

2.50 Credits/Semester

Course #FA153b

(Semester, Open to Grades 9-12 with Prerequisite in Semester 2)

Advanced Video Production is a project-based course that focuses heavily on editing and creating longer pieces of work. Students will be able to implement previously learned camera and editing skills while learning and implementing advanced editing and special effects skills. By the end of the course students should have three films that they have directed and edited. *Prerequisite must successfully have completed Video Production.*

DOCUMENTARY FILMMAKING 11

2.50 Credits /Semester

Course #FA152a, FA152b

(Semester, Open to any student, in Semester 2, who has successfully completed a Video Production or TV Broadcasting class)

Documentary Filmmaking is a project-based course that examines the multitude of ways to tell a nonfiction story. Students will work both in groups and independently on a variety of documentary projects. They will view both classic and current documentaries to learn the various styles and techniques of documentary filmmaking. They will also learn how to build a relationship with a subject, and learn to consider the ethical responsibilities of nonfiction storytelling. *Prerequisite: Successful completion of Video Production or TV Broadcasting class.*

ANIMATION 11

2.50 Credits/Semester

Course #FA107a, FA107b

(Semester, Open to Grades 9-12)

This introductory project-based class explores the history and craft of animation. From the humble beginnings of the flip book to Disney's 12 Principles of Animation, every student will be comfortable in and enjoy this course regardless of artistic abilities. In this course, students will get the experience of a real working animation studio. Students will work both collaboratively and independently throughout the semester on a variety of fun projects while learning a multitude of industry-standard techniques and software. *Prerequisite: None.*

INTRO TO GAME DESIGN 11

2.50 Credits/Semester

Course #FA109a, FA109b

(Semester, Open to Grades 9-12)

This introductory project-based course explores the world of interactive media, emphasizing how it's designed and what makes it engaging for those who play them. Students will learn the basics of 3D modeling and programming for game engines through using industry-standard software. By the end of the semester, students will have the opportunity to design their own interactive experiences, taking home a project of which they can be proud at the end of the semester. No prior art or coding experience necessary to flex your creativity in this course! *Prerequisite: None.*

ADVANCED GAME DESIGN 20, 21**2.50 Credits/Semester****Course #FA208b, FA209b****(Semester 2 only, Open to Grades 9-12)**

In this advanced course, students will take their knowledge from the previous Game Design course and apply it to a real-world studio setting. Students will get together in teams to spend the semester creating a game from start to finish. Students will specialize in what they found most appealing in the previous course, whether they want to focus on art, programming, or design. Students who have met the requirements to take the honors level of this course will have more leadership-based roles and an added research component to the course that will delve into careers and studio habits. *Prerequisite: Successful completion of Intro Game Design or Instructor Permission. For honors credit: A- or better in Intro to Game Design 11 or Instructor permission. Animation 11 is suggested, but not required.*

INTRODUCTION TO TELEVISION BROADCASTING 11**2.50 Credits/Semester****Course #FA161a, FA161b****(Semester, Open to Grades 9-12)**

This elective course follows the production of a television news broadcast show from concept to product. Students will learn to operate the equipment in the Natick High School television studio. Students will research, write, direct and edit a daily news show, "The Redhawk Report". Students will help design the nature of the shows that are produced in the studio. *This introduction course leads to the Advanced TV Broadcasting Courses. Prerequisite: None.*

ADVANCED TELEVISION BROADCASTING NEWS I 11**2.50 Credits/Semester****Course #FA163a, FA163b****(Semester, Course can be repeated, Open to second semester Grade 9, and Grades 10-12)**

In this advanced course, students will take their knowledge from the previous Television Broadcasting course and apply it to a real-world setting. This one semester course provides students the opportunity to produce their own Morning Announcements Show. Students will act as reporters, writers, directors, anchors, camera operators, audio technicians, and producers for this live daily show. The morning announcement show will consist of a pledge of allegiance, updated daily news announcements about Natick High School, sports reports, extra curricular updates, weather reports, etc. This production will be recorded live daily and distributed to all Natick High School students and the community. *Prerequisite: Successful completion of Intro. to Television Broadcasting.*

ADVANCED TELEVISION BROADCASTING AM NEWS I 11**2.50 Credits/Semester****Course # FA164a, FA164b****(Semester, Course can be repeated, Open to second semester Grade 9, and Grades 10-12)**

In this advanced course, students will take their knowledge from the previous Television Broadcasting course and apply it to a real-world setting. This one semester course provides students the opportunity to produce their own Morning Announcements Show. Students will act as reporters, writers, directors, anchors, camera operators, audio technicians, and producers for this live daily show. The morning announcement show will consist of a pledge of allegiance, updated daily news announcements about Natick High School, sports reports, extra curricular updates, weather reports, etc. This production will be recorded live daily and distributed to all Natick High School students and the community. *Prerequisite: Successful completion of Intro. to Television Broadcasting*

INTRODUCTION TO WEB DESIGN 11**2.50 Credits/Semester****Course #FA171a, FA171b**

(Semester, Open to Grades 9-12)

Introduction to Web Design is a project-based course in which students will learn the skills to design and build their own web pages. Students will explore how color, typography, and layout can work together to make the user experience (UX) more appealing and accessible. They will edit images using Photoshop, and will learn the languages HTML and CSS to code sites from scratch. Students will finish this course with tangible, professional, mobile responsive websites. *Prerequisite: None.*

ADVANCED WEB DESIGN I 21**2.50 Credits/Semester****Course #FA271a, FA271b****(Semester, Open to second semester Grade 9, and Grades 10-12)**

The purpose of this course is to prepare students for a future where they can properly harness advanced Web design skills. The course covers advanced Hypertext Markup Language (HTML) and CSS Style Sheets, as well as advanced topics in Dreamweaver and Photoshop as it pertains to Web Design. Students will complete peer group activities and independent projects. They will create 2 Websites, one class Website and one educational site for a teacher outside of the NHS Web Design program, each which will serve a different purpose and audience. Many professions value an employee who is proficient and advanced in HTML, CSS, Adobe Dreamweaver, and Photoshop. This class will provide them with the skills necessary to use these technologies in such a way that they would be confident in adding them to their resume. *Prerequisite: B+ or higher average in Introduction to Web Design 11 and teacher approval.*

YEARBOOK 11**2.50 Credits/Semester****Course #FA155****FULL YEAR, Open to Grades 9-12)**

This full year project-based elective course is for students who will be involved in every aspect of creating the annual Natick High School yearbook. The course is designed to simulate a job in the media production industry rather than the traditional structure of a high school class. Students will be fully integrated into the production process, including but not limited to learning graphic design, photography, writing, communication between students, staff, and community members, finance and budget, and more! Students will learn life-long skills on how to properly act in a professional setting and understand the responsibility of deadlines and teamwork. Completion of this course will allow students to sign up for Advanced Yearbook for more leadership opportunities. *Prerequisite: None.*

THEATRE ARTS**THEATRE FOR ALL 11****2.50 Credits/Semester****Course #FA184a****(Semester 1. Course can be repeated. Open to Grades 9-12)**

An activity-oriented class where most of the work occurs in the classroom. This theatre class is designed to include both the performer and nonperformer. This class will feature both on-stage work and behind-the-scenes work. Students will experience the realms of the actor, theatre technician (crew), designer, playwright, director, as well as, light and sound board operator. Students will engage in theatrical games, view performances (both live and recorded), Analyze scripts (texts), participate in performances as an actor and/or designer, write some short theatrical work, and practice a specific area of design. Theatre games are utilized in class to create a sense of community and trust to build focus and acting skills. Students may elect/ take this class for multiple years and receive credit each time. *Prerequisite: None.*

SCENE STUDY 11**2.50 Credits/Semester****Course #FA185b****(Semester 2. Course can be repeated. Open to Grades 9-12 - *Theatre for All* suggested but not required)**

The majority of acting teachers agree the route to understanding a character and improving a theatrical performance lies in scene study. The majority of the work will take place in the classroom in the hands-on project-based course. In scene study we will explore full texts (play scripts) or scenes from various times and genres - from Greek - to Renaissance - to early Realism - to Response to Realism / including tragic, dramatic, comedic, and absurd. Students will work as both critical readers and as immersive performers as they explore scripts and scenes

representative of different periods and styles. Students may elect this class for multiple years. Class may run concurrently with *Directing for the Stage*. *Prerequisite: Theatre for All suggested but not required.*

MUSIC

CONCERT CHOIR 11

2.50 Credits/Semester

Course #FA511

(Full Year, Grades 9-12)

This ensemble is open to all students at Natick High School. No experience is necessary, but the ability to read music is a plus. Students will explore singing, hearing, reading, and understanding music. The choir performs four concerts, is invited to sing at various community events, travels locally and regionally, and sometimes competes at choral festivals.

INTRODUCTION TO BAND 11

2.50 Credits/Semester

Course #FA614

(Full Year, Grades 9-12)

This course is open to all students in grades 9-12 who are interested in learning a band instrument (flute, oboe, bassoon, clarinet, bass clarinet, alto saxophone, tenor saxophone, baritone saxophone, trumpet, french horn, trombone, euphonium, tuba, percussion). This class offers the band experience at the beginner level and no experience is necessary - only the will and desire to play an instrument. Students will learn the techniques of playing the instrument, music reading skills, and band fundamentals. This is a great opportunity for students who never had the opportunity to play in a band or for students who went away from it and want to come back. Instruments may be rented or potentially provided by Natick Public Schools when needed. After completing this full-year course, students will be encouraged to enter the Natick High School Concert Band.

Prerequisite: None

CONCERT BAND 11

2.50 Credits/Semester

Course #FA610

(Full Year, Grades 9-12)

Concert Band is a large ensemble open to students in grades 9-12 that will build upon past experience. Students will further develop tone, technical facility, expression, ensemble skills and critical listening. The course will introduce students to various musical techniques, genres, styles and historical works. Students will have the opportunity to expand their abilities as an individual musician while working to improve their ability as an ensemble player. Attendance at performances is mandatory, including two parades (Veteran's Day and Memorial Day), two home football games, and the Thanksgiving Day football game (as well as playoffs if necessary). These aforementioned performances count toward community service hours. The band may perform at festivals, as well. Concert Band will play at least four evening concerts each year. (Honors level is available 2nd semester freshman year). Continuation of instrumental lessons is strongly encouraged.

STRING ORCHESTRA 11

2.50 Credits/Semester

Course #FA612

(Full Year, Grades 9-12)

String Orchestra provides students an opportunity to use music to learn about self, others and the world as well as to create and respond to excellent music. Students will develop their ensemble skills with regard to technical accuracy, dynamics, balance, and blend. Students will also learn to communicate through music by listening, reading, and responding. The course will introduce students to various musical techniques, genres, styles and historical works. Students will have the opportunity to expand their abilities as an individual musician while working to improve their ability as an ensemble player. The orchestra will perform at school concerts, festivals, and other events. Previous experience, including lessons and/or ensemble participation in violin, viola, cello, or double bass is expected but not required.

JAZZ ENSEMBLE 14

1.50 Credits/Semester

Course #FA911

(Full Year, Open to Grades 9-12)

The jazz ensemble is an after school class for students in Grades 9-12 that will help students develop musical skills relevant to jazz. The course will focus on improvisation, harmony, and rhythm. The jazz ensemble plays at multiple school concerts as well as some outside and community venues. The ensemble may take part in major jazz events such as the Eastern District Jazz and the University of New Hampshire festivals. *Prerequisite: Students must audition. If successful in audition, students are expected to attend the following: sectionals after school, all rehearsals, concerts, as well as, competitions, and private weekly lessons.*

MEN'S CHOIR 14

2.00 Credits/Semester

Course #FA921

(Full Year, Open to Grades 9-12)

Open to all tenor and bass voices at Natick High School. No experience is necessary; however, experience reading music or singing is a plus. Students will study singing, hearing, reading, and understanding music. The choir performs in four concerts throughout the year, is invited to sing at various community events, travels locally and regionally, and sometimes competes at choral festivals. **This choir rehearses on red days during CDS** as well as with Musae one evening per week. *Prerequisites: none*

MUSAE 14

2.00 Credits/ Semester

Course #FA513

(Full Year, Open to Grades 9-12)

Open to all Soprano and Alto voices at Natick High School. Students will explore singing, hearing, reading, and understanding music. The choir performs four major concerts, is invited to sing at various community events, travels locally and regionally, and sometimes participates in choral festivals. **This choir rehearses on blue days during CDS as well as with Men's Choir one evening per week.** *Prerequisite: None.*

GENERAL MUSIC

INTRODUCTION TO MUSIC PRODUCTION 11

2.50 Credits/Semester

Course#FA721a, FA721b

(Semester 1 and 2, Open to Grades 9-12)

This course will involve group and individual projects with the focus on composing your own music and recording it in GarageBand. No prior experience in music, piano or digital recording is necessary and is open to students in grades 9-12. Students will explore their own music through beat making, creative composition, and other digital music projects. Topics covered include basic keyboard skills, music styles, music composition, chord and scale theory, ear training, improvisation, arranging, basic recording, and music production. *Prerequisite: None.*

MUSIC THEORY 11

2.50 Credits/Semester

Course #FA719a

(Semester 1 only, Open to Grades 9-12)

This course will introduce and review the components of basic music theory. The course is for all students Grades 9-12 that want to explore the basic music skills and basic music fundamentals. The essential aspects of melody, harmony, rhythm, and form are studied. Throughout the course of the year students will study basic notation, scales, key signatures, intervals, triads, cadences, non-chord tones, form, part-writing and analysis of a score. Aural dictation and ear training are also an integral part of the course and will be taught throughout the year. The course is designed to help student musicians understand the music around them. All students who have any interest in music are encouraged to take this course. *Prerequisite: None.*

PIANO 11

2.50 Credits/Semester

Course #FA713a, FA713b

(Open to Grades 9-12)

This advanced college preparatory course is an instructor-led, group and individual introduction class to playing the piano. It is for students of all ability levels. Students will gain technical skills on the instrument, learn to read music, understand basic music theory, learn about scales and chord progressions, and become comfortable

playing popular styles of music. *Prerequisite: No experience is necessary, but students who have taken lessons before are welcome to take the course as well. Prerequisite: None.*

AN AMERICAN HISTORY OF ROCK AND ROLL 11

2.50 Credits/Semester

Course #FA722a, FA722b

(Semester 1 and 2, Open to Grades 9-12)

An American History of Rock and Roll seeks to integrate the history of America with the history and progression of Rock and Roll. Students taking this class will be able to trace the history of Rock and Roll and understand the influences it had on major historical events within the United States. The class will cover issues of race, gender, age, and sex and how Rock and Roll helped to spur rebellion in those areas in an attempt to create equality. The course covers the United States History from the mid 1950's through a study of the Blues progression from its origins to its growth to Rock and Roll and related genres. The course is inclusive of African Americans, Asian Americans, Chicanas/os and Latinas/os, Native Americans and their experiences and contributions through music to the history of Rock and Roll.

The purpose of the course is to take a topic the students are genuinely interested in, music, and use that to show the impact of music on the history of the United States. After the course students will be much more aware of how music can be and is impactful of the world around them. *Prerequisite: None.*