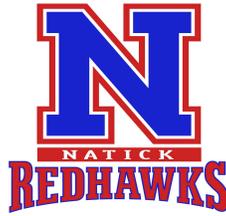


NATICK HIGH SCHOOL  
PROGRAM OF STUDIES

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2018-2019

*Brian Harrigan, Principal  
Rose Bertucci, Dean  
Margaret Boudreau, Vice Principal  
Zach Galvin, Vice Principal*



*15 West Street  
Natick, Massachusetts 01760  
(508) 647-6600 FAX (508) 651-7372*

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January 1, 2018

Dear Students and Parents,

The 2018-2019 Natick High School Program of Studies provides information on our vision and mission statements as well as our expectations for student learning. Information on our approach to counseling services, graduation requirements, course descriptions, and academic levels are also found in the program.

In preparation for the 2018-2019 school year, carefully review the information and work closely with your guidance counselors and parents to make the best course selections to meet your personal goals. Refer to the graduation requirements and make choices to meet those, choosing academic and enrichment courses that are rigorous and interesting. Read the course descriptions carefully, choose your levels wisely, follow your passions and challenge yourself. A description of the scheduling process can be found on page 7.

I encourage you to take full advantage of the diverse offerings and expert teachers that we have at Natick High School. Don't be afraid to take a risk, step outside your comfort zone and try something new. You never know what interests and opportunities await.

I wish you all a wonderful school year.

All the best,

A handwritten signature in black ink that reads "Brian J. Harrigan". The signature is written in a cursive style.

Brian Harrigan, Principal  
Natick High School

*disability, national origin, or sexual orientation.*

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**NATICK PUBLIC SCHOOLS**  
**VISION**

*The Natick Public Schools is a community focused on and dedicated to all students achieving high standards in a safe, trusting, respectful environment where learning is exciting, dynamic, and engaging.*

**NATICK HIGH SCHOOL**  
**CORE VALUES**

**As part of a larger community, Natick High School seeks to develop students with creative minds, healthy lifestyles, and strong character, who will contribute ingenuity, service, acceptance, and leadership to an ever-changing society.**

**As globally literate citizens, Natick High students will achieve their highest academic potential by communicating clearly, thinking critically, problem-solving creatively, and working collaboratively while mastering subject information.**

**Through diverse programming, Natick High students will engage in active learning that promotes wellness while preparing students for college, career, and life choices.**

**In a safe and supportive environment, Natick High students will demonstrate responsibility, integrity, and respect in their daily lives.**

**NATICK HIGH SCHOOL EXPECTATIONS**  
**FOR STUDENT LEARNING**

**Academic Expectations:**

Natick High School students will:

- Write with focus, development, and detail.
- Orally communicate ideas and information coherently and with clarity.
- Analyze and solve real-world problems.
- Use appropriate technology to research, organize, and present information.
- Make informed choices and practice behaviors necessary to achieve and maintain their physical well-being.

**Civic and Social Expectations:**

Natick High School students will:

- Conduct themselves with honesty and integrity.
- Demonstrate personal responsibility for their learning, and in their behavior.
- Practice social responsibility and active citizenship.

**NATICK HIGH SCHOOL**  
**DEPARTMENT OF GUIDANCE & COUNSELING**  
**Mrs. Karen Dalton-Thomas, Department Head**

**Mission of the Guidance & Counseling Office**

- The guidance and counseling department will provide a support system for all students by supplementing regular instructional, administrative, and extracurricular activities according to standards established by the American School Counselor Association.
- We provide direct services to students and indirect services through parents, teachers, and other primary influencers, e.g., doctors, therapists, etc.

### **Developmental Approach to Counseling Services**

The Department of Guidance and Counseling uses the developmental approach in the delivery of services. Programs and activities offer students direction and assistance in coping with the normal stages of adolescent development. At the high school level, these issues are related to goal-setting and decision-making and include the following:

- **Developing academic and career goals**
- **Adapting to changing circumstances**
- **Planning programs to achieve goals**
- **Experiencing structured decision-making**
- **Coping with outcomes of decisions**
- **Encouraging students to balance challenges**
- **Making solution-focused decisions**

A wide variety of resources and activities are presented to students. Guidance seminars are provided for freshmen and seniors in the first semester and for sophomores and juniors in the second semester. These seminars address the relevant developmental tasks of each grade level (i.e. transitions, career exploration, college planning, etc.). In addition, print and computer resources help students to research information in vocational development and college planning.

### **PROMOTION/GRADUATION REQUIREMENTS**

The Natick High School Diploma will be awarded upon:

- Successful completion of one hundred thirty (130) credits in disciplines specified below.
- A passing score on the English/Language Arts, Mathematics, and Science MCAS Tests.
- Thirty (30) hours of community service.

Total Required Credits/Subjects	Class 2019, 2020	Class 2021, 2022
To graduate:	130 credits	130 credits
Physical Education: (4 semesters)	10 credits	10 credits
Health: (1 semester)	2.5 credits	2.5 credits
English: (8 semesters)	20 credits	20 credits
Foreign Language: (4 semesters)	10 credits	10 credits
Social Studies: (6 semesters)	15 credits: Global Awareness -5.0 US History - 5.0 2 sem. any other SS courses – 5.0	15 credits: Global Awareness - 5.0 Civics – 2.50 and 1 sem. any other SS course – 2.50 or AP Government - 5.00 US History – 5.0
Mathematics: (8 semesters)	20 credits	20 credits
Science: (6 semesters)	15 credits	15 credits
Fine Arts: (2 semesters)	5.0 credits	5.0 credits
Elective Credits: May be taken from any of the curriculum areas.	32.5 credits	32.5 credits
Community Service:	30 hours	30 hours
MCAS (ELA, Math & Science)	Passing Score	Passing Score
Credits to be promoted:		
To be a Sophomore	32 credits	32 credits
To be a junior	65 credits	65 credits
To be a senior	97 credits	97 credits

Courses receive 2.5 credits per semester with the exception of Jazz Ensemble and Men’s Vocal that receive 1.5 credits each.

## ADVANCED PLACEMENT (AP) DESCRIPTIONS

Natick High School offers a wide variety of Advanced Placement (AP) courses in many subject areas. In addition, students may take AP courses not formally offered at the high school through online venues. These courses are very rigorous and follow a specific curriculum set forth by the College Board in order to prepare students for the AP examinations. Students enrolled in AP courses are expected to take the College Board AP examination in May. Students receiving a score of 3 or higher may be eligible to receive college credit or advance past prerequisite courses in college. **These policies vary widely per college.**

### COURSE LEVELS

The first number following the course name indicates the year the course is first offered. The second number indicates the level.

1. The second number ending in a (0) that follow the course name is considered Honors Level. For example: 10, 20, 30, 40, and 50.
2. The second number ending in a (1) following the course name is considered Advanced College Preparatory (ACP) which typically proceeds at a faster pace and has a higher student to teacher ratio than our college preparatory (CP) classes. For example: 11, 21, 31, 41, and 51.
3. The second number ending in a (2) following the course name is considered College Preparatory (CP) and proceeds at a slower pace than the ACP courses. For example: 22, 32, and 42.
4. If a student is enrolled in an Advanced Placement course, the AP designation is listed at the beginning of the course name. For example: AP Psychology 40.
5. PE is not considered a college preparatory course.

### SCHEDULING PROCESS

1. Students in Grade 8 begin the scheduling process with the assistance of their middle school guidance counselors.
2. Students in Grades 9, 10 and 11 begin the scheduling process in February.
3. Current classroom teachers will make recommendations regarding appropriate levels for the following year.
4. Natick High School guidance counselors will present course options to students.
5. Students will have around three weeks to make course selections in iStudent before the portal closes.
6. Course verification will be posted in iParent and iStudent in April.
7. Student schedules will be posted in iStudent and in iParent in mid-August.

Please see Course Selection Process on the Natick High School Guidance Website for additional information.

[http://naticknhs.ss11.sharpschool.com/guidance/program\\_of\\_studies/course\\_selection\\_process/](http://naticknhs.ss11.sharpschool.com/guidance/program_of_studies/course_selection_process/)

## GRADE POINT AVERAGE CALCULATION

Natick High School provides students with two Grade Point Averages (GPAs): the College GPA and the Natick High School GPA. Both GPAs are located on the student's Natick High School transcript.

The **College GPA** is calculated at the end of each high school semester, starting with the end of the freshman year. It is calculated on a 4.0 scale according to the Massachusetts Board of Higher Education formula, which includes academic college preparatory courses only, with an additional .5 value for Honors courses and an additional 1.0 value for AP courses. No course is given more than 2.5 credits in the calculation. This is the GPA that is located on a student's report card. The following conversion chart documents the steps required to calculate the College GPA:

### Conversion to 4.0 Scale

#### Letter Grading

<u>Letter Grade</u>	<u>4.0 Scale</u>	
A+	4.3	Add .5 for Honors Courses
A	4.0	Add 1.0 for AP Courses
A-	3.7	This GPA includes all courses, including PE.
B+	3.3	This scale is used by the Massachusetts State
B	3.0	Colleges and Universities* and is helpful in
B-	2.7	gauging reach, realistic and safety schools
C+	2.3	during college planning.
C	2.0	
C-	1.7	*See following page for list of colleges.
D+	1.3	
D	1.0	
D-	0.7	
F	0.0	

#### Calculating the weighted College GPA

Use the following steps to complete the weighted GPA calculation:

**Step 1:** Convert each final semester grade to its equivalent on the 4.0 scale.

**Step 2:** Weight grades by adding .5 to each converted grade earned in an honors level course, and 1.0 to each converted grade earned in an Advanced Placement course.

**Step 3:** Multiply each converted grade by the course credits earned (not to exceed 2.5 credits).

**Step 4:** Total the products from Step 3.

**Step 5:** Divide total from Step 4 by total number of course credits (no more than 2.5 per course).

**Step 6:** Quotient is the student's weighted GPA.



\*Massachusetts State Colleges and University Campuses:

Bridgewater State University  
Fitchburg State University  
Framingham State University  
Massachusetts College of Art & Design  
Massachusetts College of Liberal Arts  
Massachusetts Maritime Academy  
Salem State University  
Westfield State University  
Worcester State University  
University of Massachusetts Amherst  
University of Massachusetts Boston  
University of Massachusetts Dartmouth  
University of Massachusetts Lowell

The **Natick High School GPA** is calculated at the end of sophomore year. It is calculated on a 5.0 weighted scale and includes all courses. No course is given more than 2.5 credits in the calculation. A GPA chart is developed for each class, depicting where a student's GPA falls in comparison to his/her classmates. This GPA chart is created at the end of each semester, starting after first semester of the junior year. The following chart and directions are for calculating the Natick High School GPA.

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- Using the semester grade, locate the point value of the grade for each course.
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<b>Grades</b>	<b>AP</b>	<b>Level 0,</b>	<b>Level 1</b>	<b>Level</b>
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		<b>Honors</b>		<i>2/4/7</i>
<b>A+</b>	7.300	6.300	5.300	4.300
<b>A</b>	7.000	6.000	5.000	4.000
<b>A-</b>	6.700	5.700	4.700	3.700
<b>B+</b>	6.300	5.300	4.300	3.300
<b>B</b>	6.000	5.000	4.000	3.000
<b>B-</b>	5.700	4.700	3.700	2.700
<b>C+</b>	5.300	4.300	3.300	2.300
<b>C</b>	5.000	4.000	3.000	2.000
<b>C-</b>	4.700	3.700	2.700	1.700
<b>D+</b>	4.300	3.300	2.300	1.300
<b>D</b>	4.000	3.000	2.000	1.000
<b>D-</b>	3.700	2.700	1.700	0.700
<b>F</b>	0.000	0.000	0.000	0.000

## **Course Pathways and Unit Overviews**

### **Computer Sciences and Media Arts**

#### **Understanding What Computer Science Is**

Computer Science education in schools has increased in importance in recent years. To ensure that the Natick Schools have a program in keeping with the best programs available to public school students, the NHS staff has undertaken various courses, professional development experiences and examination of programs in MetroWest and across the United States.

In collaboration with Microsoft, Computer Science Teachers of America (CSTA), MASSCAN (a Computer Science Advocacy group), Education Development Center (EDC), and Code.Org, NHS teachers have trained to deliver what these partners indicate is the best base program for teaching computer science and allowing school systems to develop and build multiple computer science pathways for student engagement.

Additionally, in recent years, new Science, Technology and Engineering standards were released. We have spent this time re-articulating to these new standards. The area of “computer science” includes aspects of mathematics, media/video/audio arts including aspects of music, engineering, computer skills, coding and web design. There is no one pathway that constitutes “computer science.” We have defined several options for Natick students.

#### **The Pathways are Options**

The included pathways, it must be noted, reflect the diversity of computer science and are sample pathways within the realm of offerings in Natick. However, they are not exhaustive nor are students bound to a certain pathway or restricted by them. Counselors and administrators work to match student interest to options in course selection.

#### **Communicating NHS’s Pathway Options**

As NPS administrators, teachers and counselors began to understand the definition and breadth of computer science, and toured programs of other schools and states, it became clear that our existing program was more complex, diverse, and rigorous than most other schools and systems. In order to reduce confusion about our complex computer science offerings, student interest pathways were created in the table below. We hope this exemplifies the variety of options available to students, and allows students to identify courses that may grow their area of interest in computer science.

### Computer Science/Technology offering by interest at Natick High School

Computer Science/Technology Courses	Interest 1: Graphic Design	Interest 2: Gaming	Interest 3: Video	Interest 4: Robotics/ Engineering	Interest 5: Web Design
Intro to Computer Science					
Intro to Web Design*					
Intro to Animation					
Digital Photography					
Video Production					
Robotics					
TV Broadcasting					
Game Design and Development					
Graphic Design*					
Yearbook					
iPad Publishing					
Explorations in Mechanical Engineering					
Civil Engineering and Architecture					
Engineering Projects					
Adventures in Aeronautical Engineering					
AP Computer Science					
A+ Certification*					
MAC+ Certification*					
Advanced Inventive Robotics					
Advanced Graphic Design I					
Advanced Graphic Design II					
Advanced Web Design I*					
Advanced Web Design II*					
Advanced Game Design and Development					
Advanced TV Broadcasting					
Advanced Yearbook					

\*Student certifications available: MAC+, Certification, A+ Certification, Adobe Photoshop, Illustrator, InDesign, Dreamweaver

### Massachusetts Bay Community College Dual Enrollment Classes

Mass Bay has Commonwealth Dual Enrollment Program (CDEP) funding for high school students who qualify to participate in college courses for free!

CDEP eases the transition from high school to college, allows students to get a head start on their college careers, and provides meaningful and challenging academic experiences to qualified students who otherwise may not have access to an early college experience. Students will have the following costs covered by the grant: tuition, fees, and text books.

In the 2015-16 school year, NHS launched a dual enrollment program with Massachusetts Bay Community College. Students earn college credit and Natick High School credit for attending evening class at the Mass Bay Framingham Campus. Different courses are given every year so students should speak to their guidance counselor if interested in taking a dual enrollment course.

The following courses were offered second semester of the 2017-2018 school year:

MBCC SO115 Social Problems - 3.0 MBCC credits = 2.5 NHS credits

MBCC PS 260 Psychology of Business & Industry - 3.0 MBCC credits = 2.5 NHS credits

MBCC CP 100 Introduction to Communication – 3.0 MBCC credits = 2.5 NHS credits

MN130 – Engineering Design with CAD I -

## NATICK HIGH SCHOOL COURSE DESCRIPTIONS:

### WELLNESS DEPARTMENT

Grade 9	Grade 10	Grade 11	Grade 12
Wellness I 14 (semester)	Wellness II 24 (semester) Health 21 (semester)	Health 31 (semester) Awake Fitness 14 (semester) Group Fitness 34 (semester) Recreational Activities for Life 34 (semester) Team Sports 34 (semester) Personal Fitness 34 (semester) Intro to Strength Training 31 (semester) Cooperative Wellness 34 Pilates, Yoga, & Mindfulness 34	Awake Fitness 14 (semester) Group Fitness 34 (semester) Recreational Activities for Life 34 (semester) Team Sports 34 (semester) Personal Fitness 34 (semester) Intro to Strength Training 31 (semester) Cooperative Wellness 34 Pilates, Yoga, & Mindfulness 34 Advanced Strength Training 44

The high school curriculum is part of a comprehensive K-12 Health and Physical Education program. The graduation requirements for Health and Physical Education are as follows:

<b>Total Required Credits/Subjects</b>	
<b>Physical Education:</b>	10 credits
<b>Health:</b>	2.5 credits

The goal of **Physical Education** is to encourage students to develop an individual optimum level of physical fitness, acquire knowledge of health-related fitness concepts, and understand the significance of lifestyle choices on one's health and fitness. Through multiple fitness experiences, students will become more responsible for and develop an appreciation of lifelong fitness strategies.

The **Health Education** program takes a proactive approach to learning about some of the most controversial and difficult topics in modern society. The courses respond to the current challenges facing high school students. Students are taught the skills and knowledge to make informed decisions regarding their health and wellness. The curriculum does so by improving relationships with parents and friends as well as targeting risky behaviors among adolescents. Additionally, students gain decision-making skills that help them resist negative pressure.

**PE as an Elective course:** It is a Natick High School graduation requirement for students to take one semester (2.5 credits) per year of Physical Education. In some cases, students may choose to take an additional PE course as an elective. In such cases, students will receive an additional 2.5 credits for the extra elective course, but this does not exempt students from the requirement to take one semester of Physical Education in each subsequent year, even if the total exceeds 10 credits. There is a form that must be signed by the student and the parent if the student chooses to take an extra PE class as an elective course. It is available on the Guidance website under Program of Studies or from any guidance counselor.

## PHYSICAL EDUCATION

### **AWAKE FITNESS 34**

**2.50 Credits/Semester**

**Course #026a, 026b**

**(Semester, Open to Grades 11-12 only)**

This course provides an overview of fitness concepts, the effects of exercise on an individual, and explores training programs specific to achieving optimal physical and mental health. This class is fitness based and students will have the option of three fitness tracks: Personal Fitness, Group Fitness and Team Sports. Activities include, but are not limited to strength training, plyometric training, cardiovascular training, intervals and metabolic conditioning. Many training modalities will be utilized. Individual and class data will be collected and analyzed in order to provide maximum training benefits. Awake Fitness begins before the start of the school day at 6:50am and ends at 8:10am. It will open up a block in the school day for a study hall. Students will assess their levels of physical fitness. Participants will create a personal fitness program specific to individual needs. Evaluation will include formative and summative assessments. Students are required to bring their heart rate monitor strap to each class.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

### **WELLNESS I 14**

**2.50 Credits/Semester**

**Course #031a, 031b**

**(Semester)**

Wellness I is a one semester course designed so all students have the basic knowledge about how to become fit and why it is important. Students will learn how to safely use various exercise equipment and stations in the fitness center. Instruction will focus on the components of fitness and how they contribute to optimal health. Principles of strength training, elements of cardiovascular health, basic anatomy and physiology, nutrition, 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 used in this course in order to assess heart rate.

### **WELLNESS II 24**

**2.50 Credits/Semester**

**Course #032a, 032b**

**(Semester)**

Wellness II is a semester course designed for all students to have foundational knowledge pertaining to maintaining optimal health throughout their lifetime. Wellness II curriculum is designed to develop and enhance lifetime wellness. Wellness II expands on the five health-related components of fitness. Students will assess their current level of physical fitness. Topics in class will focus on functional fitness, exercise, and nutrition. Students will learn and practice nine functional fitness movements. Basic nutrition is covered including micro and macro nutrients and the digestive system.

**GROUP FITNESS 34****2.50 Credits/Semester****Course #012a, 012b****(Semester, Open to Grades 11-12 only)**

Group Fitness is a course designed for students looking to experience fitness in a motivating group setting. Exercise will focus on cardiovascular fitness, muscular strength and endurance, flexibility, balance, body alignment, relaxation techniques, and agility. Challenging aerobic workouts will be offered, including but not limited to Kickboxing, Yoga/Pilates, Cross-Fit style workouts, Zumba, Circuit Training, Cycling, and Ballroom Dance. Assessment will include student taught workouts, choreographed dances, quizzes, fitness testing, Health Vision Boards, and article assignments.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

**PILATES, YOGA, & MINDFULNESS (PYM) 34****2.50 Credits/Semester****Course #029a, 029b**

**(Semester, Open to Grades 11-12 only)** Pilates, Yoga, & Mindfulness is designed to educate students to focus on the present moment and relieve stress. Students will learn the importance of balancing the mind and body through various movements and relaxation techniques. Pilates and Yoga utilize movements to strengthen the core, increase muscular endurance, increase flexibility, and feel more energized.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

**RECREATIONAL ACTIVITIES FOR LIFE 34****2.50 Credits/Semester****Course #013a, 013b****(Semester, Open to Grades 11-12 only)**

Recreational Activities for Life provides students with an opportunity to incorporate physical activity and life-long leisure experiences into their lifestyle through game play and practice. Focus units include but are not limited to badminton, pickle ball, golf, archery, walking/jogging, volleyball and tennis. Other team sports will be incorporated as non-competitive activities. Skills and common concepts of each lifelong activity will be presented and developed through practice and match play. Students of all skill and experience levels are encouraged to enroll in this course.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

**TEAM SPORTS 34****2.50 Credits/Semester****Course #014a, 014b****(Semester, Open to Grades 11-12 only)**

The Team Sports course provides students the opportunity to experience a variety of team sports. Activities include but are not limited to flag football, soccer, ultimate games, speedball, basketball, floor hockey, and lacrosse. Content includes a comparison of various competitive field games examining strategies, proper sportsmanship, refereeing, rules and skills. This class is designed for students who enjoy physical exertion.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

**PERSONAL FITNESS 34****2.50 Credits/Semester****Course #015a, 015b****(Semester, Open to Grades 11-12 only)**

This course builds on the concepts acquired from Wellness I & Wellness II. Continued emphasis will be placed on properly applied progressive resistance exercises using selected machines and free weights. Students will also become familiar with more advanced methods of strength and cardiovascular conditioning exercises. Each student will design his or her own personal fitness program appropriate to his or her individual goals and needs. Students will assess their levels of physical fitness and work to improve those levels each day in class. This is a great off-season or in-season conditioning program that can be done during school for students with multiple after-school commitments. Any student wishing to improve their fitness levels would benefit from this course.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

**INTRO TO STRENGTH TRAINING 34****2.50 Credits/Semester****Course #025a, 025b****(Semester, Open to Grades 11-12 only)**

This course will provide opportunities for our junior and senior grade level students to incorporate a more focused and directed strength-training program. Students will be introduced to exercise physiology terminology, proper anaerobic exercise prescription, appropriate exercise protocol, and will experience a higher level and more rigorous strength training experience. This course will also offer students the opportunity to practice goal setting and meeting achievable goals through program refinements and modifications. Students will create individual exercise programs and will log their workout minutes as an on-going document to learn from. Students will spend much of their in-class time in focused workouts designed to help them reach their strength goals. There will also be an out-of-class workout requirement to be logged by the students. Ultimately this course is designed for the student who is interested in, and serious about learning and improving their application and knowledge of strength training.

*Prerequisites: Students must complete Wellness I & Wellness II with a passing grade or permission of instructor.*

**ADVANCED STRENGTH TRAINING 44****2.50 Credits/Semester****Course #028a, 028b****(Semester, Open to Grade 12 only)**

This course builds on students' knowledge gained during Intro to Strength Training and takes it to a more refined and advanced level. Advanced Strength Training is designed for students who have completed Intro to Strength Training and want a more in-depth experience, and exposure to more advanced strength training theory, concepts, and practice. This course is also designed for those students who would like to pursue training certification in the future or have interest in a career in the field.

*Prerequisites: Students must complete Intro to Strength Training with a passing grade or permission of instructor.*

## **COOPERATIVE WELLNESS 34**

**2.50 Credits/Semester**

### **Course #020a, 020b**

#### **(Semester, Open to Grades 11-12 only)**

Cooperative Wellness is a modified physical education course that is developmentally appropriate to meet the needs of all learners. Heart Rate Monitors will be used as an assessment tool. Skills learned will include:

- Gross and fine motor skills (throwing, catching, manipulating equipment, etc.)
- Skills in dance, individual and group games and sports (including intramural and lifetime sports)
- Fundamental motor skills and patterns (throwing, catching, walking, running, etc.)

Students enrolled in this course will be expected to provide specific support to instructors in the Wellness program in the following capacities:

- Assists students during the performance of instructional activities which may involve assisted walking, getting on or off equipment, or in and out of assistive equipment
- Coordinates materials, equipment, facilities and supplies for classes
- Sets up, install, maintain and service equipment, materials and supplies used in classes
- Trains students and others in the safe and proper use of specialized physical education equipment when necessary
- Maintains physical environment and condition of the facility and equipment
- Answers students' questions regarding class assignments
- Participates in activities, specialized workshops and special events
- Performs related duties as required or assigned

## **HEALTH EDUCATION**

### **HEALTH 21**

**2.50 Credits/Semester**

#### **Course #018a, 018b (Semester)**

This advanced college preparatory health course is held for one semester during sophomore year. The content is primarily concerned with those behaviors that contribute directly to optimal health while reducing the risk of disease. At the conclusion of this advanced college preparatory course, students will have a better understanding of major health concepts, a sense of responsibility for their health, and the necessary skills to implement desirable health behaviors and attitudes. Key concepts and topics include mental and emotional health, substance abuse prevention, healthy relationships and human reproduction.

## FAMILY CONSUMER SCIENCE

### FAMILY AND CONSUMER SCIENCE (Electives)

	Grade 9	Grade 10	Grade 11	Grade 12
Honors (Level 0)		Child Growth & Development 20 (full year)	Child Growth & Development 20 (full year)  Early Childhood Education 30 (full year)	Child Growth & Development 20 (full year)  Early Childhood Education 30 (full year)
Advanced College Preparatory (Level 1)	Family Development 11 (semester 1) (formerly Intro to Family Living 11)  Intro to Child Growth 11 (semester 2)	Child Growth & Development 21 (full year)  Family Development 11 (semester 1) (formerly Intro to Family Living 11)  Intro to Child Growth 11 (semester 2)  Community Connections 21 (semester)	Child Growth & Development 21 (full year)  Early Childhood Education 31 (full year)  Family Development 11 (semester 1) (formerly Intro to Family Living 11)  Intro to Child Growth 11 (semester 2)  Community Connections 21 (semester)	Child Growth & Development 21 (full year)  Early Childhood Education 31 (full year)  Family Development 11 (semester 1) (formerly Intro to Family Living 11)  Intro to Child Growth 11 (semester 2)  Community Connections 21 (semester)

**All courses within the Family Consumer Science Department are considered college preparatory.**

### **FAMILY DEVELOPMENT 11**

**2.50 Credits/Semester**

**(Formerly: Introduction to Family Living 11)**

**Course #634a**

**(Semester 1 Only)**

This is a one-semester advanced college preparatory course designed to explore the nature and significance of the family on child development. The course will explore the many factors that influence family structure decisions as well as explore current trends within U.S. families. It will ask students to reflect on their own values, experiences and bias as they attempt to define what a “healthy” family looks like. Students will also focus on how families can be resilient in times of change and through challenges. Students will have the chance to talk with real families about various life experiences and situations. Students will also learn about positive communication and guidance strategies that they can implement in any caregiving roles they might have (e.g. babysitting) or in the future.

## **INTRODUCTION TO CHILD GROWTH 11**

**2.50 Credits/Semester**

**Course #631b**

**(Semester 2 Only)**

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.

## **CHILD GROWTH & DEVELOPMENT 21**

**2.50 Credits/Semester**

**Course #637**

**(Full Year, Open to Grades 10-12 only)**

This advanced college preparatory course is designed to provide the most up-to-date and comprehensive study of child development from conception through age six, with a focus on how to support children's optimal development. The course will study and critique popular child development theories with an emphasis on their real world application. Students will conduct formal child observations and interpret them according to child development knowledge. Students will also have the chance to care for a simulated infant over the course of a weekend. This course is a prerequisite to Early Childhood Education 31 at NHS. **Students will be working in an introductory fashion with children in the preschool. Successful completion of a CORI check is a condition of admittance to the course.**

***NOTE: Students who complete both the Child Growth and Development course and Early Childhood Education course are eligible to apply for "Massachusetts Department of Early Education and Care Preschool Teacher" certification.***

## **CHILD GROWTH & DEVELOPMENT 20**

**2.50 Credits/Semester**

**Course #636**

**(Full Year, Open to Grades 10-12 only)**

(Same as Child Growth & Development 21) There will be additional assignments and readings if taken for honors credit. **Students will be working in an introductory fashion with children in the preschool. Successful completion of a CORI check is a condition of admittance to the course.**

***NOTE: Students who complete both the Child Growth and Development course and Early Childhood Education course are eligible to apply for "Massachusetts Department of Early Education and Care Preschool Teacher" certification.***

## **EARLY CHILDHOOD EDUCATION 31**

**2.50 Credits/Semester**

### **Course #642**

#### **(Full Year)**

Early Childhood Education is a course for students who have successfully completed Child Growth and Development. This advanced college preparatory course offers a hands-on opportunity to observe, interact and guide preschoolers while assisting in the Natick Preschool program. Students will be using their knowledge of the development of children to create and implement preschool lesson plans. Students will also become knowledgeable about how to create a safe, nurturing learning environment across multiple factors in the classroom, physical environment, rules and procedures, child interactions, curriculum, family engagement and more. An emphasis will be placed on inclusion practices and supporting special needs within the classroom. **Successful completion of a CORI check is a condition of admittance to the course.**

*Prerequisite: Successful completion of Child Growth and Development or option available to take both courses in same academic year.*

**NOTE: Massachusetts Bay Community College will award 3 credits for ED112 Introduction to Early Childhood Education to Natick High School graduates who complete this course with a grade of B or better and are enrolled at MBCC.**

**NOTE: Students who complete both the Child Growth and Development course and Early Childhood Education course are eligible to apply for “Massachusetts Department of Early Education and Care Preschool Teacher” certification.**

## **EARLY CHILDHOOD EDUCATION 30**

**2.50 Credits/Semester**

### **Course #641**

#### **(Full Year)**

(Same as Early Childhood Education 31.) There will be additional assignments and readings if taken for honors credit. **Students will be working directly with children in the preschool. Successful completion of a CORI check is a condition of admittance to the course.**

*Prerequisite: Successful completion of Child Growth and Development or option available to take both courses in same academic year. Students may elect to take the class for Honors level credit with a grade of A- in Child Growth and Development 21 or 20.*

**NOTE: Massachusetts Bay Community College will award 3 credits for ED112 Introduction to Early Childhood Education to Natick High School graduates who complete this course with a grade of B or better and are enrolled at MBCC.**

**NOTE: Students who complete both the Child Growth and Development course and Early Childhood Education course are eligible to apply for “Massachusetts Department of Early Education and Care Preschool Teacher” certification.**

**COMMUNITY CONNECTIONS 21****2.50 Credits/Semester****Course #644a, 644b****(Semester, Open to Grades 11. 12. Open 2<sup>nd</sup> Semester to Grade 10)**

This Advanced College Preparatory course provides a hands-on approach to educational opportunities related to working with students with disabilities. General education students will work with their disabled peers within the ACCESS program by engaging in social, life, and independent living skills as well as functional academic opportunities. In addition to these activities, general education students will learn and engage in project based learning activities related to specific disabilities. This class is beneficial for anyone seeking a future in education, special education or related services, but can be valuable to all.

**NOTE: Students may elect to take this class multiple years.**

## **GUIDANCE DEPARTMENT**

### **FRESHMAN GUIDANCE SEMINAR 14**

**0.50 Credits/Semester**

#### **Course #959**

Freshman students participate in Guidance Seminar during the fall semester. Each student is scheduled into a seminar which meets during the CDS block once per cycle, and is taught by his or her own guidance counselor. Freshmen will cover a variety of topics, focusing on the transition to the high school. Topics include, but are not limited to, an introduction to the Naviance/Family Connection software, 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 foster an affirmative school community and climate.

### **SOPHOMORE GUIDANCE SEMINAR 24**

**0.50 Credits/Semester**

#### **Course #961**

Sophomore students participate in Guidance Seminar during the spring semester. Each student is scheduled into a seminar which meets during the CDS block once per cycle, and is taught by his or her own guidance counselor. Sophomores will be focusing on self-discovery and career exploration. Topics include, but are not limited to, “Do What You Are“ a career interest inventory based on the Myers Briggs Type Indicator accessed through their Naviance accounts, college majors that pertain to the careers revealed from the assessment, and a bullying intervention and prevention curriculum designed to foster empathy and build school community.

### **JUNIOR GUIDANCE SEMINAR 34**

**0.50 Credits/Semester**

#### **Course #963**

Junior students participate in Guidance Seminar during the spring semester. Each student is scheduled into a seminar which meets during the CDS block once per cycle, and is taught by his or her own guidance counselor. Juniors will review course selection options and choose their courses for their senior year. They will then complete an extensive college planning unit. Students are also led through a peer empathy unit designed to foster empathy and build school community.

### **SENIOR GUIDANCE SEMINAR 44**

**0.50 Credits/Semester**

#### **Course #965**

Senior students participate in Guidance Seminar during the fall semester. Each student is scheduled into a seminar which meets during the CDS block once per cycle, and is taught by his or her own guidance counselor. Guidance counselors walk students through the college application process from beginning to end. We encourage students to get all the information via these seminars and then to make an appointment with their guidance counselors on an individual basis. Students are also led through a peer empathy unit designed to foster empathy and build school community.

## **MENTORSHIP**

### **(Full Year, Grades 9-12)**

A year-long, student-driven program designed to acclimate new students in their transition to Natick High School. Upperclassmen student mentors will provide ninth grade, transfer, and international students a positive, safe environment to discuss available resources in the high school and how to access them, academic requirements and expectations, and social issues. Mentors will enhance their leadership skills, assist in program development of engaging content and build authentic, meaningful connections within the school community. Mentors will participate in several planning meetings, participate in new student orientation and will be supervised by select faculty members. *Student mentors will earn community service hours for participation of the program.*

## **ANTI-DEFAMATION LEAGUE (ADL) TRAINER**

**0.50 Credits/Semester**

### **(Full Year, Open to Grades 9-12)**

The Anti-Defamation League was founded in 1913 to “stop the defamation of the Jewish people and to secure justice and fair treatment to all.” Now the nation’s premier civil rights/human relations agency, ADL fights anti-Semitism and all forms of bigotry, defends democratic ideals, and protects civil rights for all. Since 2012, Natick High School, Wilson Middle School and Kennedy Middle School have partnered with ADL as part of our district-wide anti-bullying and awareness initiatives. NHS currently has over one hundred participants who meet once a cycle during CDS to discuss current and topical issues that might be construed as bullying and/or inappropriate behavior. The objective of this group is to promote a school culture that embraces all people’s differences and actively looks for ways to interrupt the cycle of bullying as it happens. ADL Trainers might be asked to develop original presentations and deliver them across grades during Guidance Seminar to raise awareness and spread kindness among the Redhawk population. Students can become an ADL Trainer by completing an Application Form, that is available each Spring.

*Note: This program was established in 2012 and continued through the 2017-2018 school year. The format and structure of the program has been changed for 2018-19 and moving forward.*



## ENGLISH DEPARTMENT

### ENGLISH DEPARTMENT

	Grade 9	Grade 10	Grade 11
Advanced Placement (AP)			AP English Language & Composition 30
Honors (Level 0)	English 10	English 20	English 30
Advanced College Preparatory (Level 1)	English 11	English 21	English 31
College Preparatory (Level 2)		English 22	English 32
Electives	At the Movies 11 (semester) Creative Writing 11 (semester) From Aliens to Zombies: Science Fiction 11 Mysteries, Mutants, & Monsters: Pulp Fiction 11	At the Movies 11 (semester) Creative Writing 11 (semester) Communications 21 (semester) From Aliens to Zombies: Science Fiction 11 Mysteries, Mutants, & Monsters: Pulp Fiction 11 Amer. Rebels & Social Justice I 20, 21 (semester 1 only) Amer. Rebels & Social Justice II 20, 21 (semester 2 only)	At the Movies 11 (semester) Creative Writing 11 (semester) Communications 21 (semester) From Aliens to Zombies: Science Fiction 11 Mysteries, Mutants, & Monsters: Pulp Fiction 11 Amer. Rebels & Social Justice I 20, 21 (semester 1 only) Amer. Rebels & Social Justice II 20, 21 (semester 2 only)

“You think your pains and heartbreaks are unprecedented in the history of the world, but then you read. It was books that taught me that the things that tormented me were the very things that connected me with all the people who were alive, or who have ever been alive.” *James Baldwin, writer (1924-1987)*

The Natick High School English Department endeavors to equip students with the skills necessary for success in the 21st century. Through their engagement with a rich and varied curriculum, soundly based in the Common Core State Standards, students will

- develop written and oral communication skills for creative, academic, and professional purposes;
- enrich their understanding of literatures and genres of diverse periods and cultures;
- strengthen their critical reading, analytical thinking, and problem solving abilities;
- broaden their understanding of and facility with the English language;
- augment their research skills, using a variety of media.

**All courses within the English Department are considered college preparatory. Courses ending in a one (Advanced College Preparatory) are more accelerated and typically have a higher student to teacher ratio than courses ending in a two (College Preparatory).**

## **FRESHMAN ENGLISH 10**

**2.50 Credits/Semester**

### **Course #101**

#### **(Full Year)**

This honors college preparatory course is designed to challenge students with exceptional interest in literature and writing. Students should love to read, write, and share thematic ideas. They are expected to have advanced organizational and study skills. These larger-sized classes require most reading and writing to be done independently and students are expected to understand literature both concretely and abstractly. Students will study vocabulary units related to the literature throughout the course of the year and integrate these words into their speech and writing. They will take more responsibility in group and long-term projects, and they will be active participants in class discussions and activities. The core literary selections include *The Odyssey*, *Romeo and Juliet*, *To Kill a Mockingbird*, short stories, and select non-fiction pieces. Additional selections may include *When I Was Puerto Rican*, *Curious Incident of the Dog in the Night-time*, *Forgotten Fire*, *I Know Why the Caged Bird Sings*, *The Chocolate War*, *The Absolutely True Diary of a Part-Time Indian*, and *Feed*. These literary works will be the basis for discussing and understanding the Enduring Understandings of the course: Literature helps readers develop self-awareness and cultivate human empathy by providing characters with unique perspectives and differing identities; the writing process requires thoughtful and careful revision to create a well-written piece; successful readers use a variety of strategies to discern meaning from texts and match their strategies to their purpose as readers; and collaboration and discussion of ideas in a respectful manner builds knowledge, enlarges experience, and broadens world views. The writing component will consist of explanatory, informational, argumentative, and narrative writing. The writing process will include peer editing, self-editing, and revising. 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 #103**

#### **(Full Year)**

This advanced 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. Students will study vocabulary units related to the literature throughout the course of the year and integrate these words into their speech and writing. The core literary selections include *The Odyssey*, *Romeo and Juliet*, *To Kill A Mockingbird*, short stories, and select non-fiction pieces. Additional selections may include *When I Was Puerto Rican*, *Curious Incident of the Dog in the Night-time*, *Hero*, *The Chocolate War*, *The Absolutely True Diary of a Part-Time Indian*, *Feed*, and *The House on Mango Street*. These literary works will be the basis for discussing and understanding the Enduring Understandings of the course: Literature helps readers develop self-awareness and cultivate human empathy by providing characters with unique perspectives and differing identities; the writing process requires thoughtful and careful revision to create a well-written piece; successful readers use a variety of strategies to discern meaning from texts and match their strategies to their purpose as readers; and collaboration and discussion of ideas in a respectful manner builds knowledge, enlarges experience,

and broadens world views. The writing component will consist of explanatory, informational, argumentative, and narrative writing. The writing process will include peer editing, self-editing, and revising. 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.*

## **SOPHOMORE ENGLISH 20**

**2.50 Credits/Semester**

### **Course #111**

#### **(Full Year)**

This honors college preparatory course is geared for students who are capable of exceptional, independent work. This accelerated program integrates classical, modern, and world literature with advanced writing instruction and high expectations for communication and analysis. Writing assignments using the process method focus on argument, analysis, research, and narrative. Core literature selections include a short story unit, *A Separate Peace*, *Night*, and *Macbeth*, as well as thematically related nonfiction, short stories, and poetry. High motivation and initiative are essential to master this reading- and writing-intensive course. The vocabulary program is challenging, building students' etymological awareness. Skills outlined in the Common Core State Standards are built upon to provide a solid foundation of critical thinking skills and preparation for MCAS 2.0.

*Prerequisite: B- or better in English 10 or A in English 11 or A- in English 11 with teacher recommendation or department head approval.*

## **SOPHOMORE ENGLISH 21**

**2.50 Credits/Semester**

### **Course #113**

#### **(Full Year)**

This advanced college preparatory course integrates classical, modern, and world literature with rigorous writing instruction and expectations for communication and analysis. This course progresses at a more accelerated pace than English 22. Core literature includes *A Separate Peace*, *Night*, a short story unit, and *Macbeth* as well as thematically related nonfiction, short stories, and poetry. Writing assignments using the process method focus on argument, analysis, research, and narrative. The vocabulary program is challenging, building students' etymological awareness. Skills outlined in the Common Core State Standards are built upon to provide a solid foundation of critical thinking skills and preparation for MCAS 2.0.

*Prerequisite: C- or better in English 11 or department head approval.*

**SOPHOMORE ENGLISH 22****2.50 Credits/Semester****Course #115****(Full Year)**

This college preparatory course integrates classical, modern, and world literature with challenging writing instruction and expectations for communication and analysis. Core literature includes *A Separate Peace*, *Night*, a short story unit, and *Macbeth* as well as thematically related nonfiction, short stories, and poetry. Writing assignments using the process method, focus on argument, analysis, research, and narrative. Vocabulary is studied in conjunction with readings program and includes strategies for learning new words independently. Skills outlined in the Common Core State Standards are built upon to provide a solid foundation of critical thinking skills and preparation for MCAS 2.0.

*Prerequisite: Successful completion of English 11 or department head approval.*

**AP ENGLISH LANGUAGE & COMPOSITION 30****2.50 Credits/Semester****Course #130****(Full Year, Juniors only)**

Advanced Placement English Language & Composition is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. Students will focus on analyzing writer's purpose, audience expectations, and subjects. Additionally, students focus on the ways in which conventions and the resources of language contribute to effectiveness in writing. The primary goal of this course is to enable students to write effectively and confidently in their college courses across the curriculum and in their professional and personal lives. Students study expository, analytical, and argumentative writing that form the basis of academic and professional communication, as well as personal and reflective writing that fosters the ability to write in any context. Students will read a variety of non-fiction and fiction, as well as print and non-print texts. Students will also learn to read primary and secondary sources carefully, to synthesize materials from these texts in their writing, and to cite sources correctly. Readings in the course include works of fiction and non-fiction by George Orwell, Arthur Miller, Zora Neale Hurston, F. Scott Fitzgerald, Voltaire, Malcolm Gladwell, and other short works, including documents related to American History.

Students who opt for the AP English class are prepared and expected to take the AP Language & Composition Exam in the spring.

*Prerequisites: B+ or better in English 20 or an A- in English 21 with teacher recommendation.*

**JUNIOR ENGLISH 30****2.50 Credits/Semester****Course #133****(Full Year)**

This honors college preparatory course is designed to build upon the literature, composition, and other communications skills addressed in sophomore English 20. This course progresses at a more accelerated pace than English 31. Students engage in a variety of learning experiences: writing, research, oral presentations, reading of various genres, group work, and independent study. Through these experiences, students will explore how representative American literature (non-fiction, fiction, speeches, drama, poetry, etc.) characterizes the American dream and distinctive American character and thought. Students will also strive to improve competence in producing well-developed, well researched, thoughtfully-written products in a variety of forms. Core texts include: *Their Eyes Were Watching God*, *Death of a Salesman*, *The Catcher in the Rye*, works of the Transcendentalists, and seminal documents and pieces of literature from the nation's early days.

*Prerequisite: B- or better in English 20 or A in English 21 or A- in English 21 with teacher recommendation or department head approval.*

**JUNIOR ENGLISH 31****2.50 Credits/Semester****Course #135****(Full Year)**

In this advanced college preparatory course students engage in a variety of learning experiences: writing, research, oral presentations, reading of various genres, group work, and independent study. Through these experiences, students will explore how representative American literature (non-fiction, fiction, speeches, drama, poetry, etc.) characterizes the American dream and distinctive American character and thought. Students will also strive to improve competence in producing well-developed, well-researched, thoughtfully-written products in a variety of forms. Core texts include *Their Eyes Were Watching God*, *Death of a Salesman*, works of the Transcendentalists, , *The Catcher in the Rye*, a variety of short texts from 19<sup>th</sup> century American authors and philosophers, as well as seminal documents and pieces of literature from the nation's early days.

*Prerequisite: C- or better in English 21 or A in English 22 or an A- in English 22 with teacher recommendation.*

**JUNIOR ENGLISH 32****2.50 Credits/Semester****Course #137****(Full Year)**

This college preparatory course is designed to build upon the literature, composition, vocabulary, and other communications skills addressed in sophomore English 22. Students engage in a variety of learning experiences: writing, research, oral presentations, reading of various genres, group work, and independent study. Through these experiences, students will explore the development of communities and how our participation in both pre-determined and self-selected communities affects our perspectives and understandings of the world. Students will also strive to improve competence in producing well-developed, well-researched, thoughtfully-written products in a variety of forms. Core texts include: *Their Eyes Were Watching God*, *Death of a Salesman*, works of the Transcendentalists, *The Catcher in the Rye*, as well as seminal documents and pieces of literature from the nation's early days.

*Prerequisite: Successful completion of English 21 or 22 or department head approval.*

**AP ENGLISH LITERATURE & COMPOSITION 40****2.50 Credits/Semester****Course #150****(Full Year, Seniors only)**

Advanced Placement English Literature & Composition exposes students both to the study and practice of advanced composition and to critical analysis of challenging literature. Ideally, the teacher works with a small class in seminar fashion. Some of the specific objectives of this course are: to help students grow in their knowledge of literature in a variety of genres; to teach students to read, write about, and discuss literary works with scholarly authority and precision; to prepare students for the reading and writing assignments encountered at highly-selective colleges; to sharpen the student's awareness of language and appreciation of the writer's craft; to learn to write literary analysis under pressure with coherence, clarity, and grace; and to prepare students for the Advanced Placement Literature and Composition Examination in May. A sampling of the literature required in this course includes: Bronte's *Jane Eyre*, Garcia Marquez's *Love in the Time of Cholera*, Huxley's *Brave New World*, Shakespeare's *Hamlet*, Stoppard's *Rosencrantz and Guildenstern are Dead*, and representative works of the French existentialists. Students who opt for the AP English class are prepared and expected to take the AP Literature & Composition Exam in the spring.

*Prerequisites: B or better in AP English Language & Composition or a B+ in English 30 or an A- in English 31 with English teacher recommendation.*

**SENIOR ENGLISH 40****2.50 Credits/Semester****Course #153****(Full Year)**

This honors college preparatory course provides an introduction to significant authors and perspectives in world literature; the thematic overview focuses on the role and responsibilities of the individual in a global community. Core texts include *The Bluest Eye*, *Hamlet*, *The Other Wes Moore*, and *Things Fall Apart*; honors students will additionally read at least one more full-length text. In preparation for college, students focus on close-reading and speaking and listening skills. In addition, students' writing will include literary analysis, argument, research, and narrative essays. Vocabulary work continues, not only for SAT preparation, but also for the general improvement of students' diction. This course progresses at a more accelerated pace than English 41 to include additional texts and writing.

*Prerequisite: B- or better in English 30 or an A in English 31 or an A- in English 31 with teacher recommendation or department head approval.*

**SENIOR ENGLISH 41****2.50 Credits/Semester****Course #155****(Full Year)**

This advanced college preparatory course provides an introduction to significant authors and perspectives in world literature; the thematic overview focuses on the role and responsibilities of the individual in a global community. Core texts include: *Hamlet*, *The Bluest Eye*, *Things Fall Apart*, and *The Other Wes Moore* in addition to supplemental works. In preparation for college, students focus on close-reading skills and elements of argument writing. In addition, students' writing will include literary analysis, research, and narrative essays. Vocabulary work continues, not only for SAT preparation, but also for the general improvement of students' diction. This course progresses at a more accelerated pace than English 42.

*Prerequisite: C- in English 31 or an A in English 32 or an A- in English 32 with teacher recommendation.*

**SENIOR ENGLISH 42****2.50 Credits/Semester****Course #159****(Full Year)**

This college preparatory course provides an introduction to significant authors and perspectives in world literature; the thematic overview focuses on the role and responsibilities of the individual in a global community. Students will analyze and respond to literature, discuss themes and issues, and write essays. Core texts include: *Hamlet*, *The Bluest Eye*, *Things Fall Apart*, and *The Other Wes Moore* in addition to supplemental works. In preparation for college, students focus on close-reading skills and elements of argument writing. In addition, students' writing will include literary analysis, research, and narrative essays. Vocabulary work continues, not only for SAT preparation, but also for the general improvement of students' diction.

*Prerequisite: Successful completion of English 31 or 32 or department head approval.*

**English graduation credit is granted for certain English department electives listed below predicated on additional required rigorous reading and writing assignments. If English credit is granted, the course will appear on a student's transcript with an 'E' following the course name. For example, Creative Writing E 11.**

**FROM ALIENS TO ZOMBIES: SCIENCE FICTION 11****2.50 Credits/Semester****Course #168a****(Semester 1 Only, Open to Grades 9-12)**

Are you intrigued by ideas of space travel, time travel or alien encounters? Do you wonder about the future of artificial intelligence and technological advancement? Then this course is for you. This advanced college preparatory course will explore the following thematic units: Space Exploration, Extraterrestrials, Artificial Intelligence, Time Travel, Genetic Engineering/Future People, and Future Societies & Worlds. While science fiction is often associated with a distant future, it can actually tell us more about our own world, offer new insights into the human condition, and point us toward possible solutions. In addition to studying classic short stories and novels, we will also explore highly regarded films that have furthered the discussion of the genre's themes. Students will compose their own short stories and create their own films, relating each to themes of the course and discovering how the concerns of the present day influence the literature of tomorrow.

**MYSTERIES, MUTANTS, AND MONSTERS: PULP FICTION 11****2.50 Credits/Semester**

**Course #169b****(Semester 2 Only, Open to Grades 9-12)**

What do Sherlock Holmes, the Lone Ranger, and Superman all have in common? How about Cthulhu and the Creature from the Black Lagoon? They are all representations of humanity's need for escapism. Pulp Fiction is an exploration of the human need to find solace from the problems of the day by escaping to worlds of bigger-than-life heroes or fantastical realms of mysterious, otherworldly monsters. The genre emerged in the 1920's with the hard-boiled detective; it used clear and forceful dialogue, and a liberal use of slang. Dashiell Hammett's prose style influenced Hemingway, and Raymond Chandler was responsible for much of the snappy dialogue that made Humphrey Bogart famous and led to the success of film noir. In this advanced college preparatory course we will examine some of the major pulp writers and subgenres, as well as the influence of this style in films from the forties through the present day. The subgenres include the hard-boiled detective, westerns, horror, and the roots of science fiction. Students will study relevant historical background, write their own pulp stories, create a radio broadcast, and make a short film.

**AT THE MOVIES 11****2.50 Credits/Semester****Course #167a, 167b****(Semester, Open to Grades 9-12)**

Storytelling is basic to our lives, whether we hear stories, read stories, or watch stories. In this advanced college preparatory course, students will examine what happens when a story is told through the medium of film. Students will acquire a common film vocabulary, study the history of filmmaking, and identify the steps involved in making a film. Students will watch, discuss, research and critique films from a variety of genres. Students will also compare and contrast the telling of elements of the same story in its film and original text.

**COMMUNICATIONS 21****2.50 Credits/Semester****Course #170a****(Semester 1 Only, Open to Grades 10-12)**

Conducted in a traditional face-to-face format, Communications 21 is a one-semester elective designed to transform the reluctant, self-conscious student into a more articulate, self-confident communicator who can entertain, inform, and persuade audiences. Students will learn to speak in front of an audience on both serious and humorous topics, in both academic and social situations. They will improve their communication skills in writing as well for both professional and personal purposes. This how-to course, based on a survey of student interests and needs identified by instructor, features discrete units of study that include independent learning modules, collaborative activities, independent practice, and performances/presentations. Unit topics may include effective discussion, listening skills, academic debate, storytelling, demonstration speeches, academic class presentations, complaint/compliment letters, social media communication, joke-telling, and email etiquette, among others.

**CREATIVE WRITING 11****2.50 Credits/Semester****Course #172b****(Semester 2 Only, Open to Grades 9-12)**

Conducted in a traditional face-to-face format, this section of Creative Writing is designed to help students learn valuable techniques to cultivate their own artistic voices. This advanced college preparatory coursework includes models, prompts, and activities that foster creativity and provide structure so that students can produce material based on their interests. Students compile a portfolio of their work and participate in peer workshops to revise and publish their work on a regular basis. In addition to providing the time and space to write, the course provides opportunities to polish basic English skills, sharpen awareness of nuance, and learn manipulation of language for maximum effect. Students will write both independently and collaboratively with peers. Writing assignments may include journal writing, character sketches, interior monologue, stream of consciousness, blogging, dramatic monologue, dramatic dialogue, short stories, screenplay writing and adaptation, poetry, children's literature and science fiction. Students should expect to spend time writing outside of class and must submit work for publication each quarter.

**HUMANITIES 30, 31****2.50 Credits/Semester****Course #240E, 239E****(Semester 1 Only, Open to Grades 11-12)****See course description under Social Studies Listing**

**NOTE:** Must have English Department Head approval at the start of the course for English credit. Once permission has been obtained, to receive a semester of English Credit for Humanities the following three conditions must be satisfied: Pass both terms, pass exam, and successfully complete any additional work assigned specifically for **English Credit**.

**AMERICAN REBELS & THE FIGHT FOR SOCIAL JUSTICE, PART I 20, 21****Course # 245a, 241a****2.50 Credits/Semester****(Semester 1 Only, Open to Grades 10-12)**

American Rebels focuses on how internal and external forces combine to create one's identity following gender, race, class, and sexual orientation. In our interdisciplinary approach, we analyze identity in relation to history, legislation, civil/human rights movements, literature, biology, and modern issues and theories surrounding these identities from a national and global perspective. We also explore ways in which social change stems from various forms of resistance including civil disobedience, activism, and allyship. We discuss and debate privilege, oppression, empowerment, active citizenship, and promoting community change. This advanced college preparatory class is project-oriented and includes readings and student-led discussions.

Part I (Fall Semester) delves more deeply into access to education and the economic and social constructions of property—including slavery, the Indian Removal Act, and redlining—and how these have impacted contemporary identities. Throughout the course, we will explore case studies of individuals and groups who rebelled against these policies, including the women's rights movement and abolitionism in the 1800's.

*Prerequisite: Successful completion of Global Awareness and Freshman English*

## **AMERICAN REBELS & THE FIGHT FOR SOCIAL JUSTICE, PART II 20, 21**

**Course #246b, 242b**

**(Semester 2 Only, Open to Grades 10-12)**

**2.50 Credits/Semester**

American Rebels focuses on how internal and external forces combine to create one's identity following gender, race, class, and sexual orientation. In our interdisciplinary approach, we analyze identity in relation to history, legislation, civil/human rights movements, literature, biology, and modern issues and theories surrounding these identities from a national and global perspective. We also explore ways in which social change stems from various forms of resistance including civil disobedience, activism, and allyship. We discuss and debate privilege, oppression, empowerment, active citizenship, and promoting community change. This advanced college preparatory class is project-oriented and includes readings and student-led discussions.

Part II (Spring Semester) delves more deeply into the topics of biology, medicine, legislation, and the judicial and prison systems in America. We will consider how science impacted society's perception of identities throughout history and the lasting legacy of judicial and legislative policies on people today. Throughout the course, we will explore case studies of individuals and groups who rebelled against policies and promoted social change in the 20<sup>th</sup> and 21<sup>st</sup> centuries.

*Prerequisite: Successful completion of Global Awareness and Freshman English*

## LIBRARY

The Library at Natick High School supports the school's philosophy and objective to educate students according to their needs and abilities and to foster productivity and awareness to prepare them for the future. Our instructional program is based on the beliefs that the ability to gain access to and use information effectively is an important asset for free citizens, that libraries are valuable resources for personal growth, and that the best education motivates and empowers students to continue to educate themselves throughout their lives.

Our goals for students are:

- To become familiar with the school's library.
- To become efficient and secure in the application of advanced research skills.
- To develop the ability to locate and use appropriate resources – both in print and electronic form – in all of the school's curriculum areas.
- To begin the process of critical evaluation and analysis of relevant research materials.
- To foster a love of reading that will continue throughout their life.

The Library staff works in collaboration with any teacher wishing to bring classes to the Library. Assistance is provided in locating appropriate resources to support the unit, as well as instruction in the use of those resources.

The library is also home to Sassy! Sassy the therapy dog is a gift from the Class of 2017. She comes to school a few days a week and stays in the library to provide therapy, relaxation and joy to the students and staff at Natick High! She is a member of the "library staff" and has become a fixture in the library for all to enjoy!



## SOCIAL STUDIES DEPARTMENT

	Grade 9	Grade 10	Grade 11	
Advanced Placement (AP)		AP World History 20 AP US Government and Politics 20	AP US History 30 AP World History 20 AP Economics 30 AP Comparative Government & Politics 30	AP US G AP Psyc AP Wor AP Econ AP Com
Honors (Level 0)		Civics 20	US History 30	See belo
Advanced College Preparatory (Level 1)	Global Awareness 11 (Heterogeneous)	Civics 21	US History 31	See belo
Electives	Holocaust and Genocide 10, 11 (sem.2 only for Grade 9)  Modern Middle East History 11 (sem.1)  Genocide & Human Rights 10, 11 (semester) (sem.2 only for Grade 9)  African American History I 21 (semester 1)  African American History II 21 (semester 2)  Maritime History: Pirates and Privateers 11 (semester)	Intro. to Law I 21 (semester) Law II 21 (semester) Holocaust and Genocide 10, 11 (semester) Genocide & Human Rights 10, 11 (semester) African American History I 21 (semester 1) African American History II 21 (semester 2) Modern Military History 20, 21 (semester) Anthropology 20, 21 (semester) History of Sports & Society in America 20, 21, 22 (semester) Social/Political Issues Through Popular Music 20, 21, 22 (semester) Philosophy 20, 21, 22 (semester) Intro to Economics 21, 22 (semester) Modern American History 20, 21 (semester) Maritime History: Pirates and Privateers 11 (semester) Intro to Business & Marketing 20, 21 (semester 1 only) Amer. Rebels & Social Justice II 20, 21 (semester 2 only)	Intro. to Law I 21 (semester) Law II 21 (semester) Holocaust and Genocide 10, 11 (semester) Genocide & Human Rights 10, 11 (semester) African American History I 21 (sem 1) African American History II 21 (sem 2) Modern Military Hist. 20, 21 (semester) Anthropology 20, 21, 22 (semester) History of Sports & Society in America 20, 21, 22 (semester) Social/Political Issues Through Popular Music 20, 21, 22 (semester) Philosophy 20, 21, 22 (semester) Intro to Economics 21, 22 (semester) Modern American History 30, 31 (semester) Humanities 31, 30 (Semester 1) (juniors & seniors only) Modern American History 20, 21 (semester) Maritime History: Pirates and Privateers 11 (semester) Intro to Business & Marketing 20, 21 (semester) DECA 30, 31 Amer. Rebels & Social Justice I 20, 21 (semester 1 only) Amer. Rebels & Social Justice II 20, 21 (semester 2 only)	Sociolog Psychol Intro. to Law II 2 Holocau Genocid (semeste African African Modern Anthrop History  Social/P  Philosop Intro to Modern (semeste Humanit  Modern (semeste Maritim Privateer Intro to DECA 3 Amer. R (semeste Amer. R

In History and Social Sciences, students examine the diverse cultures of the world and the manner in which human beings view themselves in and over time. History includes the study of people, places and environments. History examines how people create and change structures of power, authority, and governance. The Social Sciences include the study of individual development and interactions among individuals, groups and institutions. The study of History includes how people organize for production, distribution and consumption of goods and services. As much as Social Studies examines necessary global connectedness and interdependence, it also reinforces the ideals, principles and practices of American citizenship in a democratic republic and the history of our republic. Students at Natick High School are required to take three years of Social Studies classes, including Global Awareness in grade 9 and Civics in grade 10, United States History in grade 11, and one semester of a Social Studies elective. Most students elect a fourth year of Social Studies in one or more elective classes. A variety of electives are open to all grades, and a variety of class configurations exist from individual support to Advanced Placement.

**All courses within the Social Studies Department are considered college preparatory. Courses ending in a one (Advanced College Preparatory) are more accelerated and typically have a higher student to teacher ratio than courses ending in a two (College Preparatory).**

### **Academic Expectations:**

The Natick High School Social Studies Department endeavors to develop diverse skills in students to prepare them for the dynamically changing global environment of the 21<sup>st</sup> century. The Social Studies faculty will foster an academic setting that encourages curiosity, inquiry and tolerance while challenging students to investigate events and themes from multiple perspectives. The department will strive to promote civic engagement within our community.

Through engagement and interaction with a rich curriculum students will:

- Learn to read, write and think critically
- Analyze primary and secondary sources
- Evaluate diverse forms of evidence and resources
- Make connections between past and present
- Conduct research using primary and secondary sources

Upon graduation from Natick High School, students are expected to be able to:

- Identify the economic and political roots of the modern world.
- Identify the origins and consequences of the Industrial Revolution, political reform in Western Europe, and imperialism in Africa, Asia and South America.
- Identify the causes and consequences of World War I, the Great Depression, World War II, the Cold War, Russian and Chinese Revolutions and the rise in nationalism and political, ethnic and religious conflicts.
- Identify the historical, intellectual and economic origins of the United States during the Revolutionary and Constitutional eras.
- Identify the key ideas of the U.S. Constitution, the basic framework of American democracy, and the basic concepts of American government.

- Identify westward expansion, origins of political parties, the growth of sectional conflict ending in the Civil War and Reconstruction.
- Identify the causes and consequences of the American Industrial Revolution.
- Identify America's growing role in world affairs including America's role in World Wars, the conflicts of the Cold War, and recent diplomatic initiatives.
- Identify the accomplishments of the Progressives, the New Deal, the Civil Rights Movement and recent trends shaping modern America.

Students of Social Studies will develop historical skills such as analysis of cartoons, charts, graphs and maps, understanding cause and effect, and identification of historical point of view. Students will examine history with the use of primary source documents.

## **GLOBAL AWARENESS 11**

**2.50 Credits/Semester**

### **Course #208**

#### **(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 20<sup>th</sup> century history; World Wars; the Cold War Era. Using a project based learning model, 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.

## **CIVICS**

Civics is a one-semester core sophomore Social Studies course required for graduation. Civics will explore the origins and evolution of American Government, analyze the structure and function of the government at the national, state, and local level, and examine how rights and liberties have been accessed by American citizens through the constitution. The course will also study the role of Ethics and Civic Responsibility within the American Democratic system. Civics classes will be taught in a heterogeneous environment with differentiated assignments and assessments for students enrolled in the two levels based on choice and prerequisites. Teachers will provide differentiated instruction according to the students' academic levels within the classroom. Honors level students will be required to complete additional work above and beyond the requirements of the college preparatory level students. AP United States Government and Politics will also serve to complete the sophomore Civics requirement.

## **CIVICS 20**

**2.50 Credits/Semester**

### **Course #229a, 229b**

#### **(Semester)**

This is an honors college preparatory course. Textbook and outside reading will be assigned at an accelerated pace within the course curriculum. Extensive written work will be required. Course load is demanding. Honors level students will be required to complete additional work above and beyond the requirements of the advanced college preparatory level students.

*Prerequisites: A grade of A or better in Global Awareness or a Grade of A- or better and teacher recommendation, and/or approval of the department head.*

**CIVICS 21****2.50 Credits/Semester****Course #230a, 230b****(Semester)**

This advanced college preparatory course meets simultaneously with the honors course. Students at this level will complete the general text readings and assessments for the course. Textbook and supplementary readings are assigned. A variety of written work and projects are expected.

*Prerequisite: Successful completion of Grade 9 Global Awareness requirement.*

**AP US GOVERNMENT AND POLITICS 20****2.50 Credits/Semester****Course #228****(Full year, Open to Grade 10)**

This demanding Advanced Placement Sophomore course is designed to teach American constitutional government based on the principles of our government, interpretation of original documents, political beliefs and behavior, political parties and interest groups, national institutions and policy processes, and law. By the end of second semester, students who complete the assigned readings and projects, participate actively in class discussions, and score well on the instructor's tests, should be fully prepared for success on the AP US Government and Politics examination. This course will complete the Civics requirement for sophomore students. This course will require substantial time outside of school hours to complete required readings, writings, and assessments. The load for this course is demanding.

*Prerequisite: A or better in Global Awareness and Teacher Recommendation.*

**U.S. HISTORY**

In this Grade 11 class, students will examine the political, social, and economic development of the United States. Topics will include: Colonial America; the American Revolution; Early Republic; Westward Expansion; Industrialization; Civil War; the Gilded Age; turn of the 20<sup>th</sup> Century; WWI & the Great Depression; WWII, the Cold War; the Civil Rights Movement; current events. 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.

**U.S. HISTORY 30****2.50 Credits/Semester****Course #2180****(Full Year)**

This is an honors college preparatory course. Textbook and outside reading will be assigned at an accelerated pace. Extensive oral and written work will be required. Course load is demanding.

*Prerequisite: A grade of B- or better in AP Government and Politics, a grade of B- or better in Civics 20, or a grade of A- or better and teacher recommendation in Civics 21, and/or approval of the department chair.*

**U.S. HISTORY 31****2.50 Credits/Semester****Course #2181****(Full Year)**

This is an advanced college preparatory course that utilizes textbook and supplementary readings with a standard course load of written work and projects.

*Prerequisite: Successful completion of Civics.*

**AP U.S. HISTORY 30****2.50 Credits/Semester****Course #216****(Full Year, Open to Grade 11)**

The AP program in United States History is designed to provide students with analytical skills and the factual knowledge necessary to deal critically with the issues of United States History. This program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. This AP United States History course will train students to analyze and interpret primary sources, including documentary material. Students should learn to take notes from printed materials, lectures and discussions. This course prepares students for the Advanced Placement exam in May and possible college credit.

*Prerequisite: A grade of A or better in Civics 20 or a grade of A- or better in Civics 20 and teacher recommendation, a grade A or better and teacher recommendation in Civics 21, or a B or better in AP Government and Politics 20, and/or the approval of the department chair.*

**AP WORLD HISTORY 20****2.50 Credits/Semester****Course #225****(Full Year, Open to Grades 10-12)**

Advanced Placement World History is based on a global perspective of the world and human interactions from before the first millennium to the present day. Six key themes that outline the course are: relationship of change and continuity, impact of interaction among major societies, impact of technology and demography of people and the environment, systems of social and gender structures, cultural and intellectual developments and interactions, and changes in functions and structures of states. Students will refine analytical skills and habits of mind such as: understanding historical and geographical context, making comparisons across cultures, using documents and other primary sources, and being able to recognize and discuss different interpretations and historical frameworks.

The amount of reading and writing demanded throughout the year will be equivalent to a full-year introductory college course, and only students who are highly motivated and have a strong interest in World History should take this course. The course will prepare students to take the Advanced Placement World History exam in May.

*Prerequisite: A- or better in any Honors History class, a grade of A or better in Global Awareness 11, and/or a grade of B or better in any Social Studies AP course or teacher recommendation and approval of the department chair.*

**AP PSYCHOLOGY 40****2.50 Credits/Semester****Course #231****(Full Year, Open to Grade 12)**

Advanced Placement Psychology will be the equivalent of a college introductory course. Upon completion of the course, students will be prepared to take the AP Psychology exam in May. The units to be studied include scientific method, biological basis of behavior, learning, development, personality, abnormal psychology, mental health, and social psychology. Classroom learning methods will include theory analysis, experimentation, extensive research-based assignments, lecture/discussion, and testing.

*Prerequisite: A- or better in any Honors History class, a grade of A or better in US History 30, a grade of A- or better and teacher recommendation in US History 30 or 31, and/or a grade of B or better in any Social Studies AP course or teacher recommendation and approval of the department chair.*

**AP UNITED STATES GOVERNMENT AND POLITICS 40****2.50 Credits/Semester****Course #238****(Full Year, Open to Grade 12)**

**This course will be taught for the final time in 2018-19 as a senior elective to give all interested students the opportunity to participate.**

This Advanced Placement course is designed to teach American constitutional government based on the principles of our government, interpretation of original documents, political beliefs and behavior, political parties and interest groups, national institutions and policy processes, and law. By the end of second semester, students who complete the assigned readings and projects, participate actively in class discussions, and score well on the instructor's tests, should be fully prepared for success on the AP Government and Politics examination in May.

*Prerequisite: None.*

**AP ECONOMICS 30****2.50 Credits/Semester****Course #220****(Full Year, Open to Grades 11 and 12)**

This full year class will prepare students to take the AP exams in both Microeconomics and Macroeconomics in May. Students will learn how economists describe and measure the economy, in the aggregate, as well as specific markets such as the labor market, the housing market, financial markets, and international trade. Students will learn how economists organize their analysis of economic choices by thinking about how individuals (i) respond to incentives, (ii) seek out exchange in markets, and (iii) form, and participate in, various economic institutions. Students will learn how to think about strategic behavior (for example, markets with a small number of firms, or negotiating trade agreements among a small number of countries). Students will learn about "externalities" and "public goods," and provide reasons for government regulation, taxation, and government-provided goods and services.

*Prerequisite: A grade of B+ or better in Civics 20, a grade of A or better and teacher recommendation in Civics 21, or a B or better in AP Government and Politics 20 or the approval of the department chair.*

**AP COMPARATIVE GOVERNMENT AND POLITICS 30****2.50 Credits/Semester****Course #227****(Full Year, Open to Grades 11-12)**

This full year class will prepare students to take the AP exams in Comparative Government and Politics in May. This course introduces students to the rich diversity of political life outside the United States. A comparative approach is used to examine the political structures, policies, and political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues.

*Prerequisite: A grade of B+ or better in Civics 20, a grade of A or better and teacher recommendation in Civics 21, or a B or better in AP Government and Politics 20 or the approval of the department chair.*

**PSYCHOLOGY 41****2.50 Credits/Semester****Course #233a, 233b,****(Semester, Open to Grade 12)**

Psychology is a heterogeneous college preparatory course which will help students gain a deeper understanding of personality and behavior, as well as relationships with others. Through a variety of articles, films, experiments, and class discussion, students will learn more about themselves and others. Some of the topics to be studied and discussed are scientific method, famous psychologists, child development theories, learning techniques, personalities, mental health issues, intelligence, emotions, adolescence, identity, and dreams. An objective of this course is to have all students develop a more positive self-concept.

**SOCIOLOGY 41, 40****2.50 Credits/Semester****Course #235a, 235b, 243a, 243b, 247a, 247b****(Semester, Open to Grade 12)**

This multi-level course is designed to make students more aware of the various roles that individuals play in society. This course will investigate such important contemporary issues as family roles, gender stereotyping, racism in America and the world, crime and the criminal justice system, the educational system, and recent social movements. Each topic will be researched and discussed in an open forum.

**AFRICAN AMERICAN HISTORY I 21****2.50 Credits/Semester****Course #275a****(Semester 1 Only, Open to Grades 9-12)****This course will not be offered in 2018-19. It will be offered next during the 2019-20 school year.**

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 lecture, debate, and group presentation. 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 21****2.50 Credits/Semester****Course #276b****(Semester 2 Only, Open to Grades 9-12)****This course will not be offered in 2018-19. It will be offered next during the 2019-20 school year.**

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 lecture, debate, and group presentation. 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.

**INTRODUCTION TO LAW I 21****2.50 Credits/Semester****Course #265a, 265b****(Semester, Open to Grades 10-12)**

Introduction to Law is a one semester advanced college preparatory course which exposes students to all facets of the American legal system. Students focus on procedural law, paying particular attention to the balance between the government's duty to protect society versus individual rights as guaranteed by the United States Bill of Rights. The course begins with a brief study of the sources of American law: common, constitutional, legislative, and administrative law. It continues with a study of the creation and enforcement of laws as well as both the federal and state level judicial systems. Class discussion, through which students will analyze actual and hypothetical cases, is an integral component of this course.

**LAW II 21****2.50 Credits/Semester****Course #268b****(Semester 2 Only, Open to Grades 10-12)**

This advanced college preparatory course will continue with Civil Law including topics such as Contracts, Warranties, Consumer Issues, and Family Law. Aspects of Criminal Law not previously covered in Law I will be explored such as Juvenile Justice and Law and Terrorism. In addition, as students taking this course will already have a background in Law from part I, Moot Courts, Mock Trials, and other role-playing opportunities will be explored to enhance the study of Law.

*Prerequisite: Successful completion of Introduction to Law I.*

**MODERN MIDDLE EAST HISTORY 11****2.50 Credits/Semester****Course #261a****(Semester, Open to Grades 9-12)**

This one semester advanced college preparatory course will introduce students to Modern Middle Eastern History, starting with the Arab-Islamic world. The class will address the following: colonialism (late-19th c. to WWII), nationalism (1950s and 1960s), Islamic fundamentalism (1970s and 1980s), and terrorism (1990s to present). It will discuss the Ottoman legacy in the region and the Western imperial impact on the creation of the Arab state system. Students will explore the political, social and cultural factors that have contributed to the formation of the modern Middle East by combining readings from textbooks with primary documents and ethnographic films. This class will be taught during the first semester.

**MARITIME HISTORY: THE HISTORY OF PIRATES AND PRIVATEERS 11****Course #263b****2.50Credits/Semester****(Semester 2 Only, Open to Grades 9-12)**

This one semester advanced college preparatory course will trace the history of pirates and privateering through the golden age of piracy to the present exploring different types of piracy including privateering or commissioned piracy, land versus sea-based piracy, as well as bootlegging and terrorism. The history of pirates will be analyzed through themes of race, class, gender, labor, and religion, as well as the democratic ideals of fraternity, equality, and liberty. Pirates and piracy will be examined through interdisciplinary means, framing questions and using methodologies from history as well as archaeology, film studies, folklore, law, literature, sociology/criminology, visual arts, and music. There will be focus on the complex links between piracy, imperialism, nation-building, and the image of pirates as both villains and figures of legend. This class will be taught during the second semester.

**For many of these courses, students will enter the following elective classes as Advanced College Preparatory. After receiving the syllabus, students will be given an option to take the course at either the Honors or Advanced College Preparatory level. Teachers will provide differentiated instruction within the classroom according to the students' academic levels. Honors level students will be required to complete additional work above and beyond the requirements of the college preparatory level students. The requirements will be detailed by the teacher prior to students choosing the level at which they wish to take the class.**

**MODERN MILITARY HISTORY 21, 20**

**2.50 Credits/Semester**

**Course #2731a, 2731b, 2741a, 2741b**

**(Semester, Open to Grades 10-12)**

This advanced college preparatory/honors course is an investigation of military history over the past seventy years. The course of study will include: World War II, Korean War, Wars of decolonization & independence, Vietnam War, Cold War, Middle East conflicts, and America in Iraq & Afghanistan. We will discuss these events in their context, as well as their significance to the present day and their relationship to the writings of Sun Tzu. We will begin the semester by studying Sun Tzu's *The Art of War*. The students are challenged with at-home readings and watching films. The students are taught the what, why, and how of modern wars.

**HOLOCAUST AND GENOCIDE 11, 10**

**2.50 Credits/Semester**

**Course #280a, 279a**

**(Semester 1 Only, Grades 9-12)**

Over this semester course, students will ultimately attempt to answer the following two questions: How do genocides happen? How can they be prevented? Special attention will be given to the Holocaust, but it is also important to study other human rights violations, past and present, and to analyze humanity's attempts to stop persecution and cruelty to others. What can *you* do to stop hatred toward others? The course will also apply the lessons of the Holocaust and other genocides to present/contemporary examples of bullying. It will challenge students to examine their own lives and behaviors, as well as those of their peers. What can students do to interrupt bullying and discrimination in the hallways and in the Natick community?

**Note: Students select the 11 level. Honors option is explained by teacher after course starts.**

**GENOCIDE AND HUMAN RIGHTS 11, 10**

**2.50 Credits/Semester**

**Course #278a, 278b, 277a, 277b**

**(Semester 2 Only, Grades 9-12)**

This is a course that complements the current Holocaust and Genocide class. It addresses other genocides and human rights violations including, but not limited to, Armenian Genocide, Stalin's Forced Famine, Rape of Nanjing, Apartheid, Cambodian Genocide, Balkan Crises of the 1990s, and Rwanda. The course will begin with a brief review/overview of human behavior and bullying and then begin a study of genocide theory. The class will then take an in-depth examination of the United Nations Universal Declaration of Human Rights as well as the attempts to meet those needs. Other major units include the exploration of human rights violations not previously covered by the Holocaust class. We will also take a look at the role of the United States and the United Nations in terms of intervention/mitigation.

**Note: Students select the 11 level. Honors option is explained by teacher after course starts.**

**ANTHROPOLOGY 21, 20**

**2.50 Credits/Semester**

**Course #2831a, 2831b, 2821a, 2821b  
(Semester, Open to Grades 10-12)**

Do you ever want to look beyond your own surroundings to study the vast differences and similarities in cultures around the world? Anthropology is the study of human society, focusing on the dynamics of culture. This semester class introduces you to subfields within anthropology: cultural/linguistic anthropology, archaeology, and biological anthropology. We will learn about how culture is constructed by analyzing a range of societies from indigenous cultures to modern capitalist cultures. We will uncover the methods and strategies modern day archaeologists use to excavate learning from Egyptian, Greek and Sumer artifacts and examples closer to home from Native American excavations. Finally, we will discover the subfield of biological anthropology by discussing human evolution, human genetic diversity, primatology, forensic anthropology, social construction of race and the biological development of humans.

**THE HISTORY OF SPORTS AND SOCIETY IN AMERICA 21, 20**

**Course #2861a, 2861b, 2851a, 2851b  
(Semester, Open to Grades 10-12)**

**2.50 Credits/Semester**

This class studies the intersection of history and historical periods and sports in America. The course will cover several major themes including: Race, Gender, and Law as it relates to sports. Students will have access to historical themes such as race, gender and law in new ways that will interest many students.

**SOCIAL/POLITICAL ISSUES THROUGH POPULAR MUSIC 21, 20**

**Course #2891b, 2881b**

**2.50 Credits/Semester**

**(Semester 2 only, Open to Grades 10-12)**

**This course will not be offered in 2018-19. It will be offered next during the 2019-20 school year.**

Popular music is more than just music. It is a commodity, expressive medium, and a creative practice all at once. Understanding the complexities of popular music requires a critical examination of its six-decade existence. This semester course begins with a look into the musical roots of rock and an interrogation of the concept of music genres. From there, we will engage a range of issues that both result from and influence rock musicians such as commodification, social critique, globalization, aesthetics, race, authenticity, performance, and censorship. We will study the development of these issues in depth by connecting them to certain songs from the history of rock. This is a listening and writing intensive course. Part of the work will be to develop critical listening and writing skills that will help connect musical phenomena to social and political issues. We will examine the diverse sub-genres of rock from many perspectives using readings from musicologists, historians, sociologists, journalists, and the musicians themselves.

**PHILOSOPHY 21, 20****2.50 Credits/Semester****Course #2921a, 2921b, 2911a, 2911b****(Semester, Open to Grades 10-12)**

This course introduces philosophy and philosophical thinking. Instead of trying to give a comprehensive account of all possible forms philosophy has assumed throughout its long history, we will zero in on several characteristic examples illustrating how classical and modern thinkers formulate their questions and how they grapple with issues in contrast to ordinary, religious, and scientific consciousness.

Consequently, we will focus on questions such as: Is knowledge possible? Does it come from reason or from experience? What is the ultimate substance of the world? Is it material or ideal? Are human actions free or determined? Does God exist? Why is there evil? Are moral norms relative or absolute? We will also explore specific concepts that philosophers use to articulate their experience and the world we live in. In addition, the course will provide a preliminary orientation about the notion of philosophical argument, its various forms, and the ways arguments should be analyzed.

**INTRODUCTION TO ECONOMICS 21****2.50 Credits/Semester****Course #2951a, 2951b****(Semester, Open to Grades 10-12)**

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. We will also examine how governments use different policies to produce change in the economy.

**MODERN AMERICAN HISTORY 21, 20****2.50 Credits/Semester****Course #2221a, 2221b, 2241a, 2241b****(Semester, Open to Grades 10-12)**

**This course will not be offered in 2018-19. It will be offered next during the 2019-20 school year.**

This course will focus on major aspects of American history that are only briefly touched upon in the sophomore classes. Major topics to study will include: United States in the Cold War, United States in the post-Cold War world, Watergate, September 11<sup>th</sup>, changing political and civic landscape in the United States Social movements, changing economy and workforce, and political campaigns. The course will look to address the question of where is America headed in the 21<sup>st</sup> century.

**HUMANITIES 31, 30****2.50 Credits/Semester****Course #239a, 240a****(Semester 1 Only, Open to Grades 11-12)**

Humanities is an Advanced College Preparatory/Honors course that incorporates most of the arts, as well as, elements of literature, history, philosophy, and other social sciences in order to examine what it means to be human. Topics considered include an introduction to humanities, history of culture, humanity's modern cultural impact, and our roles and responsibilities as creators and products of culture. This semester course employs active discussions, demonstrations, group collaborations, group projects, individual research, and written reflections aimed at preparing the student for the college experience.

*Prerequisite: For Honors Credit: A grade of B- or better in English 20/30 and U.S. History 20, or an A-in English 21/31 and U.S. History 21/31, teacher recommendation, and/or department head approval.*

**AMERICAN REBELS & THE FIGHT FOR SOCIAL JUSTICE, PART I 20, 21****Course # 245a, 241a****2.50 Credits/Semester****(Semester 1 Only, Open to Grades 10-12)**

American Rebels focuses on how internal and external forces combine to create one's identity following gender, race, class, and sexual orientation. In our interdisciplinary approach, we analyze identity in relation to history, legislation, civil/human rights movements, literature, biology, and modern issues and theories surrounding these identities from a national and global perspective. We also explore ways in which social change stems from various forms of resistance including civil disobedience, activism, and allyship. We discuss and debate privilege, oppression, empowerment, active citizenship, and promoting community change. This advanced college preparatory class is project-oriented and includes readings and student-led discussions.

Part I (Fall Semester) delves more deeply into access to education and the economic and social constructions of property—including slavery, the Indian Removal Act, and redlining—and how these have impacted contemporary identities. Throughout the course, we will explore case studies of individuals and groups who rebelled against these policies, including the women's rights movement and abolitionism in the 1800's.

*Prerequisite: Successful completion of Global Awareness and Freshman English*

**AMERICAN REBELS & THE FIGHT FOR SOCIAL JUSTICE, PART II 20, 21****Course #246b, 242b****2.50 Credits/Semester****(Semester 2 Only, Open to Grades 10-12)**

American Rebels focuses on how internal and external forces combine to create one's identity following gender, race, class, and sexual orientation. In our interdisciplinary approach, we analyze identity in relation to history, legislation, civil/human rights movements, literature, biology, and modern issues and theories surrounding these identities from a national and global perspective. We also explore ways in which social change stems from various forms of resistance including civil disobedience, activism, and allyship. We discuss and debate privilege, oppression, empowerment, active citizenship, and promoting community change. This advanced college preparatory class is project-oriented and includes readings and student-led discussions.

Part II (Spring Semester) delves more deeply into the topics of biology, medicine, legislation, and the judicial and prison systems in America. We will consider how science impacted society's perception of identities throughout history and the lasting legacy of judicial and legislative policies on people today.

Throughout the course, we will explore case studies of individuals and groups who rebelled against policies and promoted social change in the 20<sup>th</sup> and 21<sup>st</sup> centuries.

*Prerequisite: Successful completion of Global Awareness and Freshman English*

**INTRODUCTION TO BUSINESS & MANAGEMENT 20, 21**

**2.50 Credits/Semester**

**Course #2492, 2491**

**(Full year, Open to Grades 10-12 only)**

This advanced college preparatory/honors course, formerly named DECA I, is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques to real life business situations. Students learn to analyze, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which these organizations operate. The course covers the key characteristics of business organization and environment, marketing, human resources management, and operations management. In addition to real world applications, there are many links between topics learned and the topics covered in after school business clubs such as DECA and FBLA (Future Business Leaders of America). Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment.

**DECA II 30, 31**

**2.50 Credits/Semester**

**Course #DECA30, DECA31**

**(Full Year, Open to Grades 10-12 Only)**

This full year advanced college preparatory/honors course will advance students' knowledge of the dynamics of developing, managing and marketing a business. Students will learn about the dynamics of place, promotion, marketing management and professional development within a business. Students will also investigate the field of entrepreneurship. The conceptual project based learning environment is firmly anchored in business management theories, tools and techniques and placed in the context of real world examples and case studies. This class will participate in hands-on experiences in business including managing the school store. Students create a business and produce a detailed business plan as a final project. Students in this class will also be encouraged to participate in DECA and FBLA competitive events and conferences. *Prerequisite: Successful completion of Introduction to Business & Management. Open to Grades 10-12 only.*

## MATHEMATICS DEPARTMENT

Advanced Placement (Level 0)				AP Statistics 30 AP Computer Science 30	AP Calculus AB 50 AP Calculus BC 50  Topics Beyond AP Calculus 50*
Honors (Level 0)	Algebra I 10	Geometry 20	Algebra II 30	Pre-Calculus 40	Calculus 50
Advanced College Preparatory (Level 1)	Algebra I 11	Geometry 21	Algebra II 31	Pre-Calculus 41	Introduction to Calculus 51
College Preparatory (Level 2)		Geometry 22	Algebra II 32	Advanced Algebra 42  Probability and Statistics 42	*offered to students who have completed AP Calculus BC 50
Electives	Intro Computer Science 11	Intro Computer Science 11  Financial Accounting 21 (semester 1)  Managerial Accounting 21 (semester 2)	Intro Computer Science 11  Financial Accounting 21 (semester 1)  Managerial Accounting 21 (semester 2)  Financial Literacy 31 (sem.)	Intro Computer Science 11  Financial Accounting 21 (semester 1)  Managerial Accounting 21 (semester 2)  Financial Literacy 31 (semester)  Probability and Statistics 41, 42	

The Natick High School Mathematics Department consists of 18 highly-qualified teachers. The department's goal is to meet the diverse needs of all students as they prepare to enter a world where mathematical skills are of increasing importance. The department offers an honors track that culminates with the availability of four Advanced Placement courses. The department also seeks to provide the extra support for students who may need additional help building strong fundamental skills to succeed on the MCAS Mathematics examination. Throughout all of the department's courses, teachers emphasize the development of problem solving skills.

**All courses within the Mathematics Department are considered college preparatory. Courses ending in a one (Advanced College Preparatory) are more accelerated and typically have a higher student to teacher ratio than courses ending in a two (College Preparatory).**

At the foundation of all Mathematics courses is the goal of fulfilling the Natick High School Mission. The department seeks to help students develop the skills needed to satisfy all of NHS's academic expectations, using school wide rubrics as appropriate. The Mathematics Department is the primary

assessor of the problem solving expectation, with this expectation being a special focus at the Algebra II level.

### **Academic Expectations of the Natick High School Mathematics Department**

Each student learns to develop mathematical models and incorporate the following into their problem solving work:

- Identification and description of the problem
- Draw information from a variety of sources
- Address all essential conditions of the problem
- Appropriately apply mathematics to the problem
- Present correct work or computation with evidence of reflection or checking
- Show understanding of underlying concepts and procedures
- Present strong supporting arguments and/or facts with great clarity and organization

#### **ALGEBRA I 10**

**2.50 Credits/Semester**

##### **Course #301**

##### **(Full Year)**

This honors-level college preparatory course will provide a rigorous study of traditional Algebra topics from the Common Core State Standards including solving equations and inequalities, graphing and solving both linear and quadratic equations, solving systems of equations, properties of exponents, working with polynomials and factoring, and operations with rational expressions. This course is designed to build on students' prior understanding of Algebra and to develop the solid foundation needed to succeed at the honors level 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 A or better in the Grade 8 Mathematics or department head approval.*

#### **ALGEBRA I 11**

**2.50 Credits/Semester**

##### **Course #303**

##### **(Full Year)**

This advanced college preparatory course is designed to provide a solid foundation of Algebra following the Common Core State Standards for the college-bound student. The goals of Algebra 11 are to provide opportunities for students to learn about solving and graphing linear and quadratic equations, solving algebraic equations, solving systems of equations and inequalities, exponents and operations with rational numbers. The curriculum largely parallels that of Algebra 10 without a review at the start of the year and with a somewhat less rigorous level of in-depth study in some areas.

*Prerequisite: This course is recommended for students who participated in the Grade 8 Mathematics and for those who took Grade 8 Algebra I and would like to strengthen their understanding of Algebra.*

**GEOMETRY 20****2.50 Credits/Semester****Course #315****(Full Year)**

The objective of this rigorous honors college preparatory 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 the role they play in the inductive and deductive processes. Following the Common Core State Standards, students will develop basic definitions. 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), or a grade of A- in Algebra I (11) combined with the recommendation of their math teacher, or department head approval.*

**GEOMETRY 21****2.50 Credits/Semester****Course #317****(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. Following the Common Core State Standards, topics to be explored include inductive and 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: Students must have successfully completed Algebra 10 or earned a grade of C- or better in Algebra 11.*

**GEOMETRY 22****2.50 Credits/Semester****Course #319****(Full Year)**

A major goal of this college preparatory course is to develop an understanding of the concepts of Geometry following the Common Core State Standards. Topics to be explored include inductive and deductive reasoning, proofs, properties of triangles and special right triangles, polygons, circles, area, volume, and similarity. Students will learn to apply these concepts to numerous real-world models and mathematical proofs. This course will include a substantial focus on the topics often covered on the 10<sup>th</sup> Grade MCAS Mathematics examination.

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

**ALGEBRA II 30****2.50 Credits/Semester****Course #321****(Full Year)**

This honors-level college preparatory course is intended for students who are capable of profiting from an accelerated and deeper treatment of the topics of an Algebra II-Trigonometry course in one year. Following the Common Core State Standards, topics will include properties and operations in the real number system, sequences and series, graphing and solving quadratic equations, systems of equations, matrices, functions, graphing first- and second-degree equations and trigonometry. Students will learn to solve a wide range of problems using a graphing calculator.

*Prerequisite: Students must have earned a grade of B- or better in Geometry 20, or a grade of A in Geometry 21, or a grade of A- in Geometry 21 combined with the recommendation of their math teacher, or department head approval.*

**ALGEBRA II 31****2.50 Credits/Semester****Course #323****(Full Year)**

This advanced college preparatory course is designed to build on students existing mathematical skills and help them develop more sophisticated problem-solving skills. This course is important for success on the SAT/ACT and in subsequent mathematics courses. Following the Common Core State Standards, topics include: properties and operations throughout the real number system, sequences and series, graphing and solving quadratic equations, systems of equations, functions, graphing first- and second-degree equations and the elements of coordinate Geometry. Students will learn to solve a wide range of problems using a graphing calculator.

*Prerequisite: Students must have successfully completed Geometry 20, or have earned a grade of C- or better in Geometry 21, or a grade of A in Geometry 22, or a grade of A- or better in Geometry 22 combined with the recommendation of their math teacher, or department head approval.*

**ALGEBRA II 32****2.50 Credits/Semester****Course #325****(Full Year)**

In this college preparatory course, students will develop their ability to think logically and refine their mathematical skills to prepare themselves for the SAT/ACT, future courses involving mathematics, and the application of these concepts in the real world. Following the Common Core State Standards, topics of discussion include real numbers and integers, polynomials and factoring, sequences and series, rational expressions, irrational numbers, simple radical expressions, exponents and quadratic equations. This course focuses on problem solving strategies and real world application of mathematics. In this course students will learn to use a graphing calculator to solve a variety of problems.

*Prerequisite: This course is for students who have successfully completed Geometry.*

**PRE-CALCULUS 40****2.50 Credits/Semester****Course #333****(Full Year)**

This rigorous honors-level college preparatory course enables mathematically sophisticated students to expand upon, integrate, and develop strong theoretical mathematical skills. It forms the basis for a solid course in calculus and helps prepare students for the mathematics found in a variety of other disciplines. Following the Common Core State Standards, the topics investigated are: trigonometric functions and analytic trigonometry, theory of polynomial functions, rational and power functions, complex numbers, exponential and logarithmic functions, the mathematics of finance and topics in discrete mathematics such as mathematical induction, sequences and series, and combinatorics. Throughout the year, students will apply the mathematical concepts they learn to a variety of mathematical models and real world problems.

*Prerequisite: Students must have earned a grade of B- or better in Algebra II 30, or a grade of A in Algebra II 31 and completed additional work in the area of trigonometry, or a grade of A- in Algebra II 31 combined with the recommendation of their math teacher and completed additional work in the area of trigonometry, or department head approval.*

**PRE-CALCULUS 41****2.50 Credits/Semester****Course #335****(Full Year)**

This advanced college preparatory course prepares students for future studies in Calculus and other college-level mathematics courses. Curriculum will follow the Common Core State Standards. Approximately half of the course will be devoted to the study of trigonometry. The other half of the course will explore topics in discrete mathematics and functions, including polynomial functions, rational functions, and exponential and logarithmic functions. Throughout the year, this course will include an emphasis on the real-world applications of the topics discussed.

*Prerequisite: Students must have successfully completed Algebra II 30, or have earned a grade of C- or better in Algebra II 31, or a grade of A in Algebra II 32, or a grade of A- in Algebra 32 combined with the recommendation of their math teacher, or department head approval.*

**ADVANCED ALGEBRA 42****2.50 Credits/Semester****Course #326****(Full Year)**

This full-year college-preparatory level course prepares students for future studies in mathematics and prepares students for standardized tests including the SAT, ACT and Accuplacer. Topics include functions and linear equations, systems of equations and matrices, exponents and polynomial functions, rational expressions, roots and radical functions, quadratics, inverse, exponential and logarithmic functions and trigonometry. Throughout the year, this course will explore real-world applications of the topics discussed. Students may not take this course after completing Pre-Calculus 40 or 41.

*Prerequisite: Students must have successfully completed Algebra II.*

**PROBABILITY AND STATISTICS 41****2.50 Credits/Semester****Course #361****(Full Year)**

This full-year advanced college preparatory course prepares students for future studies in statistics and other college-level courses that make use of statistics. During the first semester, the course will explore key terms, categorical and quantitative variables, populations, samples, various representations of data, frequency, independent and dependent variables, contingency, standard deviation, normal distribution, outliers, percentiles, scatterplots, correlations and gathering data. The second semester will focus on probability, combinations, permutations, expected value, confidence intervals, and inference.

Throughout the year, this course will include an emphasis on the real-world applications of the topics discussed; students will learn how to use key formulas in Microsoft Excel.

*Prerequisite: Students must have successfully completed Algebra II. Preference in enrollment will be given to seniors.*

**PROBABILITY AND STATISTICS 42****2.50 Credits/Semester****Course #362****(Full Year)**

This full-year college preparatory course prepares students for future studies in statistics and other college-level courses that make use of statistics. During the first semester, the course will explore key terms, categorical and quantitative variables, populations, samples, various representations of data, frequency, independent and dependent variables, contingency, standard deviation, normal distribution, outliers, percentiles, scatterplots, correlations and gathering data. The second semester will focus on randomness, probability, combinations, permutations, expected value, confidence intervals, and inference. Throughout the year, this course will include an emphasis on the real-world applications of the topics discussed; students will learn how to use key formulas in Microsoft Excel.

*Prerequisite: Students must have successfully completed Algebra II. Preference in enrollment will be given to seniors.*

**AP CALCULUS AB 50****2.50 Credits/Semester****Course #329****(Full Year)**

This Advanced Placement course is designed to prepare students to succeed on the Advanced Placement Calculus AB examination. Students will study differential and integral calculus, two of the most powerful tools in mathematics. This course follows topics outlined by the College Board and is designed to prepare students for the Calculus AB Advanced Placement Examination. Students are challenged to strengthen and build on their mathematical skills and to pursue diverse problem situations with clarity, conviction, and enthusiasm. There is a mandatory lab period that meets during the CDS block.

*Prerequisite: This course is open to students who have completed Pre-Calculus 40 with a B+ or better, or with department head approval.*

**AP CALCULUS BC 50****2.50 Credits/Semester****Course #331****(Full Year)**

This Advanced Placement course is designed for those exceptional math students who intend to pursue further study in mathematics, science or engineering. The course, which follows the topics outlined by the College Board, will prepare students to succeed on the Advanced Placement Calculus BC examination. Students will cover all of the topics covered in the AB Calculus course, including differential and integral calculus, and will explore additional topics including infinite series, and parametric, vector, and polar functions. This will be a fast paced course, taught with the expectation that students understand and can apply those topics learned in Pre-Calculus without further review. There is a mandatory lab period that meets during the CDS block.

*Prerequisites: This course is open to students who have completed Pre-Calculus 40 with an A or better, or department head approval.*

**AP COMPUTER SCIENCE 30****2.50 Credits/Semester****Course #341****(Full Year)**

This challenging full-year course is designed to prepare students to succeed on the Advanced Placement Computer Science Course, which is based in the JAVA programming language. The curriculum is based on the College Board's recommended topics of study, including: an introduction to JAVA, classes of variables, input and output techniques, logical operators, if statements, nested loops, arrays and recursion. An emphasis will be placed on effective programming design, testing and debugging strategies. Approximately half of the course will be lecture and discussion, while half will be hands-on programming.

*Prerequisite: Students must have a grade of B- or better in Algebra II (30, 31) or department head approval.*

**AP STATISTICS 30****2.50 Credits/Semester****Course #343****(Full Year)**

This is a rigorous full-year Advanced Placement course that is equivalent to a college-level statistics course. Students are strongly encouraged to take the AP Statistics Exam, and if successful may be eligible to receive college credit. The course content is divided into four categories as follows: exploratory analysis of data which makes use of graphical and numerical techniques to study patterns and departure from patterns, collection of data according to well-developed plans in order to obtain valid information on a conjecture, use of probability to anticipate what the distribution of data should look like under a given model, and statistical inference which guides the selection of appropriate models.

*Prerequisite: Students must have completed Algebra II 30 with a grade of B- or better, or completed Algebra II 31 with a grade of A- or better, or department head approval.*

**TOPICS BEYOND AP CALCULUS 50****2.50 Credits/Semester****Course #334****(Full Year)**

After a brief review of limits, derivatives, and techniques of integration, this honors-level college preparatory course covers a variety of topics that will benefit students when they begin studying math in college. Course topics include: vectors and space geometry, partial derivatives, multiple integrals and vector fields. Derivations and proofs of theorems involving curves, planes, and space figures will be explored. This challenging course will require at least 1-2 hours of study outside of class in order to prepare for each class meeting. Come prepared to explore difficult topics in detail – this class could also be down as The Art of Problem Solving.

*Prerequisite: Completion of BC Calculus, or completion of AB Calculus with approval of AB Calculus teacher and department head approval.*

**MULTIVARIABLE CALCULUS 50****2.50 Credits/Semester****Course #334****(Full Year)**

***NOTE: This course has been discontinued in 2018-19***

This honors-level college preparatory course will explore those concepts in calculus that follow those covered in AP Calculus (BC), as generally occurs at most universities. Moving beyond the concept of the two-dimensional  $x,y$  plane, students will learn how to work with mathematics in a third dimension. We will learn the calculus of this  $x,y,z$  space and apply this math to solve real-world problems.

*Prerequisite: Completion of AP Calculus BC and department head approval..*

**CALCULUS 50****2.50 Credits/Semester****Course #345****(Full Year)**

In this honors-level college preparatory course, students will build on the concepts learned in Pre-Calculus, learning about limits, differentiation, and integration. Students will apply these concepts to a wide range of real-world problems, including rates of change, optimization, and velocity/acceleration. This course will use many of the same materials as the AP Calculus courses.

*Prerequisite: Students must have earned a grade of B- or better in Pre-Calculus 40, or a grade of A or better in Pre-Calculus 41, or a grade of A- or better in Pre-Calculus 41 combined with the recommendation of their math teacher, or department head approval.*

**INTRO TO CALCULUS 51****2.50 Credits/Semester****Course #339****(Full Year)**

In this full-year advanced college preparatory course, students will build on the concepts learned in Pre-Calculus, learning about limits, differentiation and integration. Students will apply these concepts to a wide range of real-world problems, including rates of change, optimization, and velocity/acceleration. This course will include a review of key Pre-Calculus topics (not given in the other Calculus courses) and will include a substantial focus on applications of Calculus. This course will provide a solid foundation for students planning on studying mathematics-related topics in college. This course will be of particular interest to students who wish to prepare themselves for the use of mathematics in business, economics, and the sciences.

*Prerequisite: Completion of Pre-Calculus 40, a grade of C- or better in Pre-Calculus 41, or with department head approval.*

**FINANCIAL ACCOUNTING 21****2.50 Credits/Semester****Course #373a****(Semester 1, Open to Grades 10-12)**

This one semester advanced college preparatory course focuses on the relationships between business activities and events and the impact they have on financial statements. Students study financial transactions and relate the transactions to a company's assets, liabilities, owner's equity, revenue, expenses, and cash flow. Areas of study include the basic accounting cycle, accounting principles and terminology, financial statement analysis, and a computerized general ledger system.

*Prerequisite: Successful completion of Algebra I*

**MANAGERIAL ACCOUNTING 21****2.50 Credits/Semester****Course #374b****(Semester 2, Open to Grades 10-12)**

This one semester advanced college preparatory course examines information that will be useful to managers and executives in such functions as planning and controlling operations of a business. Topics include profit analysis, decision making, budgeting, forecasting and financial statement analysis. Students learn to use and interpret accounting data as the basis for managerial decision-making and planning.

*Prerequisite: Successful completion of Algebra I*

**FINANCIAL LITERACY 31****2.50 Credits/Semester****Course #375a, 375b****(Semester, Open to Grade 11-12 Only)**

This is a one semester advanced college preparatory course that will introduce students to the very important role of personal money management. Topics will include preparation of a budget, saving and checking products, credit cards, loans, apartment leases, "homework" necessary before purchasing major products, and preparation for life changes and for retirement. This course is designed to provide each student with basic and necessary life skills.

## **INTRO TO COMPUTER SCIENCE 11**

**2.50 Credits/Semester**

**Course #346a, 346b**

**(Semester)**

In this semester advanced college preparatory course, students will be exposed to key computer science concepts by creating their own programs through a graphical user interface. Students will learn JavaScript, independently and through Karel, exploring common programming concepts such as conditionals, looping and functions. Students can work at their own pace, exploring additional concepts as time allows. At the conclusion of this course, students will be prepared for AP Computer Science.

*Prerequisite: None*

(This course is also a great introductory course and could build interest for, and lead into, the following courses: Intro to Web Design, Intro to Animation, Game Design & Development, Robotics, A+ Industry Certification, and AP Computer Science.)



## SCIENCE DEPARTMENT

	Grade 9	Grade 10	Grade 11	
Advanced Placement (AP)	AP Physics 1 10 (with permission only)		AP Environmental Science 30 AP Chemistry 30	AP PH AP PH AP BI AP EN AP CH
Honors (Level 0)	Physics 10	Chemistry 20	Biology 30	Them
Advanced College Preparatory (Level 1)	Physics 11	Chemistry 21	Biology 31	Anato Enviro Foren Physic
College Preparatory (Level 2)	Physics 12	Chemistry 22	Biology 32	Enviro
Electives	Engineering Projects 11 (semester) Robotics 11 (semester) Adv. Inventive Robotics 11 (sem. 2 only for gr. 9) A+ Certif. 20 (full year) Civil Engineering & Architecture 21 (sem.2 only for gr. 9) Explorations in Mechanical Engineering 11 (semester) Adventures in Aeronautical Engineering 11 (sem.2 only for gr. 9)	Science at the Movies 21 (semester) Astronomy 21 (semester) Engineering Projects 11 (semester) Robotics 11 (semester) Adv. Inventive Robotics 11 (semester) Green Engineering 21 (semester) A+ Certif. 20 (full year) Civil Engineering & Architecture 21 (semester) Explorations in Mechanical Engineering 11 (semester) Adventures in Aeronautical Engineering 11 (semester)	Disease & Medicine 31 (semester) Forensics 31 (full year) Science at the Movies 21 (semester) Astronomy 21 (semester) Engineering Projects 11 (semester) Robotics 11 (semester) Adv. Inventive Robotics 11 (semester) Green Engineering 21 (semester) A+ Certif. 20 (full year) Civil Engineering & Architecture 21 (semester) Explorations in Mechanical Engineering 11 (semester) Adventures in Aeronautical Engineering 11 (semester)	Disea Foren Scienc (seme Astron Engin Robot Adv. I (seme Green A+ C Civill  Explo Engin Adver Engin



## **Academic Expectations of the Natick School Science Department**

The Natick High School Science Department encourages students to explore science and engineering/technology through the study of life sciences, physical sciences, and engineering science. Upon graduation from NHS students are expected to be able to:

- Demonstrate knowledge of the main concepts, themes, and laws developed within the domains of the biological, physical and engineering sciences, an awareness of the interrelatedness of the physical, biological and engineering worlds, and an appreciation of the diversity and complexity of the natural world.
- Apply scientific reasoning, engineering processes and critical thinking skills to creatively solve problems.
- Employ a variety of measurement tools and data collection methods to obtain, record and process data including a variety of math skills as they relate to interpreting and graphing of data or problem solving.
- Analyze and interpret data from tables and/or graphs (i.e., recognize patterns, regularities, trends and anomalies) as they relate to laboratory investigations.
- Prepare oral, visual and written presentations to clearly communicate scientific concepts and results of experimentation to a variety of audiences.
- Employ technology ethically to answer questions posed in scientific endeavors.
- Demonstrate the connections between science concepts and the issues and problems of our modern technological society.
- Work collaboratively to design testable questions, conduct experiments, collect and analyze data and communicate results.

**All courses within the Science Department are considered college preparatory and are laboratory based classes. Courses ending in a one (Advanced College Preparatory) are more accelerated and typically have a higher student to teacher ratio than courses ending in a two (College Preparatory).**

## **SCIENCE PROGRAM OF STUDIES**

Every student is required to take three years of science in order to graduate from Natick High School; however, all students are encouraged to enroll in a fourth year science course. This can be accomplished by enrolling in one of many elective courses in either the life sciences, physical sciences and/or engineering. All science courses rely heavily on the discovery/inquiry method whereby students invest much of their class time performing a variety of laboratory experiments.

## **SCIENCE COURSE OFFERINGS**

### **PHYSICS L 10**

**Course #401**

**(Full year)**

**2.50 Credits/Semester**

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 to the social and historical aspect 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 and the National Science Education Standards. 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 #405**

#### **(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 theoretical models that explore the themes of energy, motion and electromagnetism. Instruction will focus on developing a student 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. 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.*

## **PHYSICS L 12**

**2.50 Credits/Semester**

### **Course #407S**

#### **(Full year)**

This course is designed for students who may be planning to further their education beyond high school, but who have difficulties with math and/or science classes at the middle or high school level. A focus is placed on the fundamental math skills necessary to interpret data, analyze data and apply their results. Lessons and labs focus on main concepts, with additional information provided in small topic worksheets and handouts. Sections will include measurement, motion in one and two dimensions, Newton's Laws of Motion, circular motion, momentum and energy, heat, electromagnetism, simple harmonic motion, waves and sound.

*Prerequisite: Department Head approval required.*

**AP PHYSICS 1 L 10****3.00 Credits/Semester****Course #408****(Full year)**

AP Physics 1 will follow the College Board Physics curriculum for Physics 1. AP Physics 1: Algebra-based is the 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 consonant with the College Board Standards for 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 placement test. Must score higher than 80% on the placement test (given each spring), and permission of the high school science department head.*

**CHEMISTRY L 20****2.50 Credits/Semester****Course #421****(Full year)**

This is an honors level college preparatory, laboratory based chemistry course for students having a high level of ability and interest in both mathematics and science. Students are expected to be self-motivated and to be able to work independently. Students will experiment extensively, allowing them to connect the theoretical concepts presented to the laboratory setting. Emphasis will be placed on finding mathematical relationships within the chemical concepts presented. Topics covered include uncertainty in measurements, atomic structure, the periodic law, chemical bonding, the mole concept, chemical reactions, chemical formulas and equations, stoichiometry, properties of gases, liquids, and solids, solution chemistry, acids and bases, thermochemistry, kinetics, equilibrium, and oxidation-reduction reactions. Instructional strategies include modeling exercises, laboratory experiments, small group work, projects, and problem solving exercises that support Massachusetts State Science Frameworks and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Chemistry MCAS test.

*Prerequisite: B- or better in Physics 10 or A in Physics 11 or A- in Physics 11 with teacher recommendation or department head approval.*

**CHEMISTRY L 21****2.50 Credits/Semester****Course #422****(Full year)**

This is an advanced college preparatory, laboratory based chemistry course designed for students with an interest and ability in both mathematics and science. This course progresses at a more accelerated pace than Chemistry L 22. It is based upon the study of chemistry as an experimental science with a focus on establishing mathematical relationships for the chemical concepts presented. As such, laboratory experiences focus on conducting experiments guided by theory and evaluating and communicating the results of these investigations according to accepted scientific practices. Students will compare, contrast and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. Other instructional strategies include modeling exercises, projects, and problem solving exercises that support Massachusetts State Science Frameworks and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Chemistry MCAS test.

*Prerequisite: C- or better in Physics II or department head approval.*

**CHEMISTRY L 22****2.50 Credits/Semester****Course #423****(Full year)**

This is a college preparatory, laboratory based chemistry course for students who do not plan to study in a science-related field. Students will reinforce their understanding of chemical systems and chemical theories through laboratory work, class discussions, small group work, projects and computer simulations. Topics include atomic theory, scientific methods, formulas and equations, chemical reactions, periodic law, phases of matter, solution chemistry, energy, reactions rates, acids and bases, and nuclear chemistry. Instructional strategies are designed to support Massachusetts State Science Frameworks and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Chemistry MCAS test.

*Prerequisite: Successful completion of Physics II.*

**BIOLOGY L 30****2.50 Credits/Semester****Course #413****(Full year)**

The goal of this honors level biology class is to describe and understand the living organisms in our surroundings as well as ourselves. This is an honors level inquiry-based college preparatory, laboratory based biology course for students who have demonstrated a high level of achievement and interest in science and mathematics. Students are expected to be self-motivated and to be able to work independently. Topics studied include cellular biology, biochemistry, biotechnology, genetics, evolution, taxonomy, microbiology, anatomy, physiology and ecology. In addition to the topics studied, students will conduct a year-long independent research project and paper. Instructional strategies emphasize inquiry-based experimental techniques but also include modeling exercises, projects, and problem solving exercises that support Massachusetts State Science Frameworks and the National Science Education Standards.

*Prerequisites: B- or better in both Chemistry 10 and Physics 10 or A in both Chemistry 21 and Physics II or A- in both Chemistry 21 and Physics II with teacher recommendation or department head approval.*

**BIOLOGY L 31****2.50 Credits/Semester**

**Course #415****(Full year)**

This is a laboratory based advanced college preparatory biology course for students having an ability and interest in science. This course progresses at a more accelerated pace than Biology L 32. Students investigate the major themes and ideas of modern biology including cell and molecular biology, biochemistry, genetics, biotechnology, evolution, ecology, anatomy & physiology, taxonomy, immunology. Instructional strategies include modeling exercises, laboratory experiments, projects, and problem solving exercises that support Massachusetts State Science Frameworks and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Biology MCAS test.

*Prerequisites: C or better in Chemistry 21 or A in Chemistry 22 or A- in Chemistry 22 with teacher recommendation or department head approval.*

**BIOLOGY L 32****2.50 Credits/Semester****Course #417****(Full year)**

This is a college preparatory biology course. This laboratory-based course is designed to teach the essential concepts of biology emphasizing connections within biological systems and between the systems and their environment. All major themes of modern biology are addressed in this course. An underlying theme of the course will be that science is a process through which scientific questions are answered. Instructional strategies include modeling exercises, laboratory experiments, projects, and problem solving exercises that support Massachusetts State Science Frameworks and the National Science Education Standards. Students will be prepared to demonstrate proficiency on the Biology MCAS test.

*Prerequisite: Successful completion of both Physics 11 and Chemistry 22 or Chemistry 21 or department head approval.*

**ENVIRONMENTAL SCIENCE L 41****2.50 Credits/Semester****Course #426****(Full year, Open to Grade 12)**

This advanced college preparatory course will focus on the study of human interaction with the environment, self-reflection on individual practices, and discussions of the implications of governmental policy. This course progresses at a more accelerated pace than Environmental Science L 42. This is a second year biology course, therefore students taking this course should have completed one year of biology. Topics covered will include the study of ecosystem structure and function, overpopulation, resource depletion and management, toxic substances, and pollution of air, water and land. Laboratory work will be completed which supports the study of these topics.

*Prerequisite: C or better in Biology 30 or 31 or A in Biology 32 or A- in Biology 32 with teacher recommendation or department head approval.*

**ENVIRONMENTAL SCIENCE L 42****2.50 Credits/Semester****Course #428****(Full year, Open to Grade 12)**

This college preparatory course will focus on the study of human interaction with the environment. Students taking this course should have completed one year of biology. The focus of the course is a study of the basic principles of ecology including the study of the earth's biomes and the role and impact of human activities on natural systems. Laboratory work will be completed which supports the study of these topics.

*Prerequisite: Successful completion of first year Biology.*

**AP ENVIRONMENTAL SCIENCE L 30****3.00 Credits/Semester****Course #429****(Full year, Open to Grades 11-12)**

The Advanced Placement Environmental Science (APES) course is designed to be the equivalent of a one-semester introductory college course in environmental science. Environmental Science provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

*Prerequisite: B- or better in Chemistry 20 or A in Chemistry 21 or A- in Chemistry 21 with teacher recommendation and concurrently enrolled in Biology or completion of Biology 30 with a B+ or better or an A in Biology 31 or A- in Biology 31 with teacher recommendation or department head approval.*

**AP PHYSICS C MECHANICS L 40****3.00 Credits/Semester****Course #436m****(Semester 1, Open to Grade 12)**

This first semester Advanced Placement course prepares students for the Advanced Placement Physics C Mechanics test. This is a college-level physics class and requires an extreme degree of motivation. The course uses the calculus forms of the physics equations. Topics covered include: Kinematics, Dynamics, Energy, Momentum, Rotation, Gravitation and Oscillation. Students are expected to work independently in a highly-computerized lab and to produce college-level lab reports. Students are required to take the AP exam in May.

*Prerequisites: B- in AP Physics 10 or B+ or better in Physics 10 or A in Physics 11 or A- in Physics 11 with teacher recommendation. Must be enrolled in Calculus concurrently or have completed a year of Calculus or department head approval.*

**AP PHYSICS ELECTRICITY & MAGNETISM L 40****3.00 Credits/Semester****Course #435****(Semester 2, Open to Grade 12)**

This second semester Advanced Placement course prepares students for the Advanced Placement Physics C Electricity and Magnetism test. This is a college-level physics class and requires an extreme degree of motivation. The course uses the calculus forms of the physics equations. Topics covered include: Electric Field, Electric Potential, Capacitance, Circuits, Magnetic Fields, Ampere's Law, and Electromagnetic Induction. Students are expected to work independently in a highly-computerized lab and to produce college-level lab reports. Students are required to take the AP exam in May.

*Prerequisites: B- in AP Physics 10 or B+ or better in Physics 10 or A in Physics 11 or A- in Physics 11 with teacher recommendation. Must be enrolled in Calculus concurrently or have completed a year of Calculus or department head approval.*

**AP BIOLOGY L 40****3.00 Credits/Semester****Course #437****(Full year, Open to Grade 12)**

This Advanced Placement Biology course is designed to be the equivalent of a college introductory course, laboratory based usually taken by biology majors during their first year and is based on the College Board's curriculum. The College Board's Biology curriculum addresses the challenge of this course by shifting from a traditional "content coverage" model of instruction to one that focuses on four Big Ideas and their enduring, conceptual understandings and the content that supports them. All learning objectives and their corresponding lab experience, activities, projects and assignments are based on the essential knowledge that makes up these Big Ideas.

- Big Idea 1: The process of evolution drives the diversity and unity of life.
- Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.
- Big Idea 3: Living systems store, retrieve, transmit and respond to information essential to life processes.
- Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties.

*Prerequisites: B- or better in Biology 30 and Chemistry 20 or A in Biology 31 and Chemistry 21 or A- in Biology 31 and Chemistry 21 with teacher recommendation or department head approval.*

**AP CHEMISTRY L 30****3.00 Credits/Semester****Course #442****(Full year, Open to Grades 11-12)**

This course is designed to be the equivalent of the general chemistry course usually taken during freshman year in college and follows the College Board's AP chemistry syllabus. As such, the course requires high levels of commitment, motivation and academic maturity.

Chemistry is the study of atoms and molecules and how they interact according to physical laws. Such study is applicable to your everyday life and this will be demonstrated repeatedly throughout the year. This course presents a rigorous treatment, reviewing and expanding on concepts learned in first year chemistry including: the nature of matter, gas laws, thermodynamics, reactions and stoichiometry, bonding, chemical kinetics, chemical equilibria, and more. This course relies heavily on laboratory experiences to teach concepts. These topics of study as well as laboratory experiments are organized around six big ideas in chemistry and their corresponding enduring understandings. All learning objectives are based on the essential knowledge that makes up these enduring understandings.

- Big Idea 1: The Chemical Elements are fundamental building materials of matter, and all matter can be understood in terms of arrangements of atoms. These atoms retain their identity in chemical reactions.
- Big Idea 2: Chemical and physical properties of materials can be explained by the arrangement of atoms, ions, or molecules and the forces between them.
- Big Idea 3: Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons.
- Big Idea 4: Rates of chemical reactions are determined by details of the molecular collisions.
- Big Idea 5: The laws of thermodynamics describe the essential role of energy and explain and predict the direction of changes in matter.
- Big Idea 6: Any bond or intermolecular attraction that can be formed can be broken. These two processes are in dynamic competition, sensitive to external conditions and external perturbations.

*Prerequisite: B- or better in Chemistry 20 or A in Chemistry 21 or A- in Chemistry 21 with teacher recommendation or department head approval.*

**THEMES IN BIOLOGY L 40****2.50 Credits/Semester****Course #438****(Full year, Open to Grade 12)**

This is a second-year honors college preparatory biology course that revolves around microbiology and biotechnology. It is designed for students who wish to explore topics beyond those covered in the junior biology curriculum. This course has a heavy emphasis on lab work and inquiry designed labs and projects. Specific topics such as bacteriology, virology, immunology, genetics, biotechnology and embryology will be addressed. Students are expected to be self-motivated and able to work independently.

*Prerequisite: B- or better in Biology 30 or an A in Biology 31 or A- in Biology 31 with teacher recommendation or department head approval.*

**ANATOMY & PHYSIOLOGY L 41****2.50 Credits/Semester****Course #443****(Full year, Open to Grade 12)**

This is a full year advanced college preparatory course in which the ten systems of the human body are studied in detail. Considerable time is spent in the course on individual laboratory work. Comparative human anatomy is studied through the dissection of various mammalian organs. Class work is supplemented with extensive outside reading. The students are taught to use many different types of physiology equipment in performing laboratory experiments associated with the circulatory, respiratory, muscular, excretory, and nervous systems of the human body. The knowledge and experience gained through in-depth laboratory work will aid the student in his/her understanding of the human body and will aid him/her in a future biological career.

*Prerequisite: B- or better in Biology 31 or Biology 30 and successful completion of one year of Chemistry or department head approval.*

**FORENSICS L 31****2.50 Credits/Semester****Course #452****(Full year, Open to Grades 11-12)**

The study of forensics in this advanced college preparatory course brings together topics students have studied in chemistry, physics and biology, and challenges students to think 'outside the box' and to apply what they have learned to a variety of situations. Following standard protocols for collecting and analyzing evidence, students will collect data, such as blood splatter patterns and fingerprints, and analyze the data to solve a 'mystery' or 'crime'. In addition, students will read both fictional and non-fictional descriptions of crime scenes.

*Prerequisite: Successful completion of introductory courses in Physics and Chemistry and completion or concurrent enrollment in Biology.*

**PHYSICS FOR ENGINEERS L 41****2.50 Credits/Semester****Course #410****(Full year, Open to Grade 12)**

This is a second-year advanced college preparatory physics course designed for students with an interest in physics and engineering. Students are expected to be able to work independently, to be self-motivated, and to have a strong background in mathematics and science. Major topics studied will include mechanics, oscillations, electricity, magnetism, and electronics. Emphasis will be placed on laboratory work, projects/experiments, and the engineering process.

*Prerequisites: C- or better in Physics 10, or a B or better in Physics 11, or department head approval. Suggested enrollment in Pre-Calculus or higher.*

**SCIENCE AT THE MOVIES L 21****2.50 Credits/Semester****Course #453a, 453b****(Semester, Open to Grades 10-12)**

In this advanced college preparatory course, students will investigate correct and incorrect science concepts used in movies from *Buck Rogers in the 25<sup>th</sup> century* to thrillers like *Them* and *The Birds* to *Star Wars* and *Indiana Jones* to *Harry Potter* to *Armageddon* and *Journey to the Centre of the Earth* or *Asteroid*. Students could use technology to redesign special effects related to a science concept in a movie scene.

*Prerequisites: Successful completion of Physics 10 or 11.*

**ENGINEERING PROJECTS L 11****2.50 Credits/Semester**

**Course #456a, 456b****(Semester, Open to Grades 9-12)**

Engineering Projects (EP) focuses on developing problem-solving skills using an engineering design development process. Students will employ engineering, mathematical and scientific concepts in the solution of engineering design problems. Students will apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. Students will use industry standard modeling software (CAD) to design their solutions, then build prototypes of their designs, test and analyze these designs. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. Combining classroom discussion with activity-based learning, and emphasizing concepts that span multiple disciplines, EP provides students with an opportunity to explore engineering and design as a career. This is an advanced college preparatory course.

*The course assumes no previous engineering knowledge, but students should be concurrently enrolled in college preparatory mathematics and science.*

**CIVIL ENGINEERING AND ARCHITECTURE L 11****2.50 Credits/Semester****Course #496a, 496b****(Semester 2 for Grade 9, Semester 1 or 2 for Grades 10-12)**

Civil Engineering and Architecture is a project-based course that explores the engineering fundamentals required for the design and analysis of building systems including materials used in construction, methods used in assembling materials into structures, forces acting on structures, thermodynamics, fluid mechanics, heat and mass transfer, and light and sound transmission. Concepts are explored through group discussion, collaborative research, and project-based discovery. Students model the way that engineers progress through projects and use the engineering design process to structure their work. Students design for sustainability and energy efficiency as they create high performance structural systems, draft construction documents and build scale models of their designs while developing the technological literacy and problem-solving skills needed to address evolving construction challenges of the 21<sup>st</sup> century. This is an advanced college preparatory course.

*Prerequisites: Successful completion of Engineering Projects II.*

**GREEN ENGINEERING L 21****2.50 Credits/Semester****Course #455a, 455b****(Semester, Open to Grades 10-12)**

This course provides a background on the issues of atmospheric balance, climate change, greenhouse gases, and an overview of the use of both renewable and nonrenewable energy sources. The course will use hands-on activities and real life problems for which students will creatively problem-solve, design and manufacture solutions with the ultimate goal of increasing energy efficiency in our new building. This is an advanced college preparatory course.

*Prerequisite: Successful completion of one science course.*

**DISEASE & MEDICINE L 31****2.50 Credits/Semester****Course #457a, 457b****(Semester, Open to Grades 11-12)**

Early medical practices, such as bloodletting, look barbaric to the modern eye. Early medical pioneers laid the foundations for 20<sup>th</sup> and 21<sup>st</sup> century medicine. While early treatments often involved an herbal poultice, vomiting and laxatives or bloodletting with leeches, today's medical treatments include sophisticated drugs that are designed to target specific organisms, high powered diagnostic tools like CAT scans and MRIs along with organ transplants and replacements. In this elective course, students will learn about the nature, treatment and spread of diseases. This is an advanced college preparatory course.

*Prerequisite: Successful completion of Physics and Chemistry.*

**A+ INDUSTRY CERTIFICATION L 20****2.50 Credits/Semester****Course #492****(Full year, Open to Grades 9-12)**

A+ Industry Certification guides students through the fundamentals of PC Repair and Maintenance. This full year honors college preparatory course will focus on the A+ Essentials and IT Technician portions of the A+ certification exam. This exam is an industry standardized exam that is recognized by professional firms worldwide. The course is reading intensive with class time used for lab work. Students will learn everything from the basic circuitry and workings of a computer to computer network technology. Many students often compete at state and national competitions (Business Professionals of America – BPA) in the IT areas of study.

*Prerequisite:*

*Grade 9: A- or better in Grade 8 Math and Science*

*Grades 10-12: Concurrent enrollment in Math and Science classes.*

**MAC+ CERTIFICATION L 20****2.50 Credits/Semester****Course #493****(Full year, Open to Grades 9-12)**

MAC+ (ACMT) Certification verifies the ability to perform basic troubleshooting and repair of both desktop and portable Macintosh systems. This full year honors college preparatory course will focus on the ACMT Hardware and Software portions of the Apple certification exam. ACMT certification exams emphasize identifying and resolving common MAC OS problems, using Apple Service and Support products and practices to effectively repair Apple hardware; MAC networking is also engaged. Industry exams associated with this course are difficult and require preparation time necessary for success; lab time provides hands on experiences for students. Students with a passing score on the ACMT certification test may apply for employment in the NPS tech department or at any Apple Store. In addition, many students often compete at state and national competitions (Business Professionals of America – BPA) in the IT areas of study.

*Prerequisite:*

*Grade 9: A- averages or better in Grade 8 Math and Science*

*Grades 10-12: Concurrent enrollment in Math and Science classes.*

**ROBOTICS L 11**  
**Course #490a, 490b**

**2.50 Credits/Semester**

**(Semester, Open to Grades 9-12)**

This advanced college preparatory course allows students to explore technology in an interactive classroom where they can mix academics with creativity; to make and operate machinery built by their hands and minds. Students with no prior experience will feel comfortable using Lego's NXT kits that allow for simple to more complex builds. Programming will be done utilizing software written by Tufts University, the software allows many levels of users to feel the excitement of watching their creation come to life. Students will work in teams to problem-solve, research and design, field test and apply their acquired skills while facing and solving challenges and at times compete against other teams. Students will learn and develop 21st century skills; teamwork, problem solving, ideation, project management, and communications. Exploration into ROV (submersibles) will be a "sub" unit of the course. Everyone solves problems differently; discover how you use technology to solve problems.

*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**  
**Course #498b**

**2.50 Credits/Semester**

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

In this advanced college preparatory course, Natick High School students will invent robotic solutions where a need is defined. Identification of problems, existing technologies and possible solutions will help students create robotic devices that uniquely solve problems. The problem subsets will be: Soldier support via Natick Army Labs, Assistive devices via MIT Media Labs with the Natick Achieve Program, and Underwater technologies via Woods Hole Oceanographic Institute. To create their inventions, students will use: Teamwork, RCA, Patent research skills, CAD, 3D printing, Programming, Field support, Product Retirement and Documentation. Students may repeat this course, as each inventive experience will be unique.

*Prerequisite: Successful completion of Robotics course or participation in RoboNatick.*

**ASTRONOMY L 21**  
**Course #458a, 458b**

**2.50 Credits/Semester**

**(Semester, Open to Grades 10-12)**

This one semester advanced college preparatory course provides the opportunity to study "everything in the universe". Starting with classical astronomy, students will describe the evening sky and organizing what we see as was done in ancient times and explore the cycles of the moon. We will then embark on a journey, starting here on Earth and progressing outward, to study the Solar System, the Milky Way Galaxy, and the wonderful and strange objects we observe in deep space, such as star cycles, black holes, quasars, and supernovae. We will end with some discussion of what scientists know today about the universe as a whole. Along the way we will introduce some of the methods that have been used to understand all of this, from Newton's Laws, through our understanding of light and matter, to Einstein's Theory of Relativity.

*Prerequisite: Successful completion of 9<sup>th</sup> Grade Physics.*

**EXPLORATIONS IN MECHANICAL ENGINEERING L 11****2.50 Credits/Semester****Course #459a****(Semester 1 Only, Open to Grades 9-12)**

This one semester class advanced college preparatory course is designed for all levels of students to familiarize themselves with common everyday applications of mechanical engineering and physical laws by looking at how everyday things work. Using science concepts along with engineering practices, the course will look at the relationship between form and function of a variety of modern devices and systems. Students will take everyday devices apart to learn how they work and why they were designed the way they were, and then attempt to re-design the object to improve or change its function.

*Prerequisite: The course assumes no previous engineering knowledge, but students should be concurrently enrolled in college preparatory mathematics and science.*

**ADVENTURES IN AERONAUTICAL ENGINEERING L 11****2.50 Credits/Semester****Course #499b****(Semester 2 for Grade 9, Semester 1 or 2 for Grades 10-12)**

This one semester advanced college preparatory course will focus on the physics of flight using drones. Students will familiarize themselves with the principles of flight and through the engineering process, they will learn how to fly a drone and develop the programming skills needed in building and flying a drone. The course will also address the ethics and legalities involved in flying drones. Students will examine how and why things fly and apply those scientific concepts to drones.

*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 9<sup>th</sup> Grade physics.*

## FOREIGN LANGUAGE DEPARTMENT

### **SPANISH LANGUAGE COURSE SEQUENCE**

	Grade 9	Grade 10	Grade 11	Grade 12
Advanced Placement (AP)				AP Spanish 50
Honors (Level 0)	Spanish 20	Spanish 30	Spanish 40	Spanish 50
Advanced College Preparatory (Level 1)	Spanish 21	Spanish 31	Spanish 41	Spanish 51
College Preparatory (Level 1)	Spanish 11	Spanish 21	Spanish 31	Spanish 41
College Preparatory (Level 2)			Spanish 32*	Spanish 42*
College Preparatory* (Level 2)	Spanish 12	Spanish 22		

\*Students completing the 21 Spanish course will have the option of entering 31 or 32, based on the prerequisites. Completing the 12/22 combination will not cover a sufficient amount of material to continue to 32.

\*A Heritage Learner class, called Spanish Literature and Culture, is offered for those students who speak Spanish at home or are Native Speakers. This is based on recommendation. Students who want a challenge and have a certain level of proficiency may take the class as an elective based on teacher recommendation.

### **GERMAN LANGUAGE COURSE SEQUENCE**

	Grade 9	Grade 10	Grade 11	Grade 12
Honors (Level 0)		German 20	German 30	German 40
Advanced College Preparatory (Level 1)	German 11	German 21	German 31	German 41
College Preparatory (Level 2)		German 22	German 32	German 42

### FRENCH LANGUAGE COURSE SEQUENCE

(Continued)

	Grade 9	Grade 10	Grade 11	Grade 12
Advanced Placement (AP)				AP French 50
Honors (Level 0)	French 20	French 30	French 40	French 50
Advanced College Preparatory (Level 1)	French 21	French 31	French 41	French 51
College Preparatory (Level 1)	French 11	French 21	French 31	French 41
College Preparatory (Level 2)		French 22	French 32	French 42

### LATIN COURSE SEQUENCE

	Grade 9	Grade 10	Grade 11	Grade 12
Honors (Level 0)		Latin 20	Latin 30	Latin 40
Advanced College Preparatory (Level 1)	Latin 11	Latin 21	Latin 31	Latin 41

### MANDARIN CHINESE COURSE SEQUENCE

	Grade 9	Grade 10	Grade 11	Grade 12
Advanced Placement (AP)				AP Chinese Language & Culture 50
Honors (Level 0)	Mandarin Chinese 20	Mandarin Chinese 30	Mandarin Chinese 40	Mandarin Chinese 50
Advanced College Preparatory (Level 1)	Mandarin Chinese 21	Mandarin Chinese 31	Mandarin Chinese 41	Mandarin Chinese 51

## **FOREIGN LANGUAGE DEPARTMENT**

Language study is an essential part of every student's education, and exposes students not only to another language but also to other cultures, literature and history. All students should be able to communicate effectively through conversing, reading and writing in a language other than English. Our goals are to have students reach communicative proficiency, gain an understanding of peoples and cultures, and make connections with other disciplines so that they may become global participants. The Foreign Language Department offers every student the opportunity to study and learn modern languages and a classical language. We offer a five year course of study in French, Spanish and Mandarin, from a first year introductory course to the advanced placement fifth year class. We also offer a four year course of study in German and Latin from a first year introductory course to the honors level fourth year class. A minimum of three consecutive years of language study is recommended, and a four/five year study is desirable to achieve a high level of proficiency. Students are encouraged to study multiple languages concurrently.

### **Academic Expectations:**

The Standards for Foreign Language Learning identify and describe 11 content standards that correspond to the five interconnected Cs of language learning: Communication, Cultures, Connections, Comparisons and Communities. These standards provide an important and useful framework to help shape instruction and assessment, and guide the teaching and learning of foreign languages.

### **Communicate in Languages Other than English:**

Students engage in conversations, provide and obtain information, express feelings and emotions and exchange opinions. Students understand and interpret written and spoken language on a variety of topics. Students present information, concepts and ideas to an audience of listeners, or readers, on a variety of topics.

### **Gain Knowledge and Understanding of Other Cultures:**

Students demonstrate and understand the relationship between the practices and perspectives of the culture studied. Students demonstrate and understand the relationship between the products and perspectives of the culture studied.

### **Connect with Other Disciplines and Acquire Information:**

Students reinforce and further their knowledge of other disciplines through the foreign language. Students acquire information and recognize the distinctive viewpoints that are available only through the foreign language and its cultures.

### **Develop Insight into the Nature of Language and Culture:**

Students demonstrate understanding of the nature of language through comparisons of the language studied and their own. Students demonstrate understanding of the concept of culture through the comparisons of the culture studied and their own.

### **Participate in Multilingual Communities at Home and Around the World:**

Students use the language both within and beyond the school setting. Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

## FOREIGN LANGUAGE COURSE OFFERINGS

**All courses within the Foreign Language Department are considered college preparatory. Courses ending in a one (Advanced College Preparatory) are more accelerated and typically have a higher student to teacher ratio than courses ending in a two (College Preparatory).**

### **FRENCH 11**

**2.50 Credits/Semester**

#### **Course #501**

#### **(Full Year)**

In this advanced 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 activities. In addition, short reading passages, aural comprehension, writing activities, and grammar are integral components of the program. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

### **FRENCH 20**

**2.50 Credits/Semester**

#### **Course #504**

#### **(Full Year)**

This honors college preparatory course offers an intensive study of the French language for students who have shown exceptional proficiency in the four language skills: listening, speaking, reading and writing. Students will increase their mastery of the language through a variety of activities including authentic texts, listening activities, formal and informal writing, and presentations. Thematic vocabulary will be introduced and applied throughout the year. Grammar studied in French 1 will be reviewed and new tenses and grammar themes will be introduced. In addition, students will investigate the culture of the French-speaking world.

*Prerequisite: A or better in French 11 or Grade 8 French or an A- and teacher recommendation in French 11 or Grade 8 French or Department Head approval.*

### **FRENCH 21**

**2.50 Credits/Semester**

#### **Course #505**

#### **(Full Year)**

French 21 is a continuation of French 11 and continues to develop listening, speaking, reading and writing skills. Students will increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of the culture. At this stage, students will practice the skill of speaking through class discussions and presentations. Moreover, students will begin to write compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in Grade 8 French, final grade of C- or better in French 11.*

**FRENCH 22**  
**Course #507**  
**(Full Year)**

**2.50 Credits/Semester**

French 22 is offered in conjunction with French 11 and offers the students the opportunity to review the French 11 curriculum and further practice listening, speaking, reading and writing skills. This is a college preparatory course.

*Prerequisite: Successful completion of French 11, course #501 or department head approval.*

**FRENCH 30**  
**Course #508**  
**(Full Year)**

**2.50 Credits/Semester**

This honors college preparatory course will continue the intensive study of the French language for students who have shown exceptional proficiency in the four language skills: listening, speaking, reading and writing. Students will increase their mastery of the language through a variety of activities including authentic texts, listening activities, formal and informal writing, and presentations. Thematic vocabulary will be introduced and applied throughout the year. Grammar studied in French 20 will be reviewed and new tenses and grammar themes will be introduced. In addition, students will investigate the culture and history of the French-speaking world. At the end of the year, students will be expected to read and analyze the classic short novel *Le Petit Prince* by Antoine de Saint-Exupéry.

*Prerequisite: B- or better in French 20 or an A in French 21 or an A- and teacher recommendation in French 21 or Department Head approval.*

**FRENCH 31**  
**Course #509**  
**(Full Year)**

**2.50 Credits/Semester**

French 31 is a continuation of French 21 and continues to develop listening, speaking, reading and writing skills. This course progresses at a more accelerated pace than French 32. Students will continue to increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of French cultures and communities. Students will practice and further develop speaking skills through class discussions, partner and group speaking activities and presentations. Moreover, students will continue to write short compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in French 21.*

**FRENCH 32**  
**Course #511**  
**(Full Year)**

**2.50 Credits/Semester**

French 32 is offered in conjunction with French 21. Students will engage in all aspects of the French 21 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is a college preparatory course.

*Prerequisite: Successful completion of French 22 or Department Head approval.*

**FRENCH 40**  
**Course #513**  
**(Full Year)**

**2.50 Credits/Semester**

This honors college preparatory course reviews and refines all of the language skills learned in the previous years, in addition to introducing students to advanced grammar and vocabulary concepts. Students are expected to achieve a higher level of proficiency in listening, speaking, reading and writing, as well as to increase their knowledge and understanding of the French-speaking world. In addition to a survey of French literature, this course includes readings on current cultural events of the francophone world. Journals, research papers, oral reports and original compositions are required. This course also incorporates aspects of the AP exam to prepare students for the next step in their academic endeavors. Students will be expected to adhere to the French only policy.

*Prerequisite: Final grade of B- or better in French 30 or an A in French 31 or an A- and teacher recommendation in French 31 or Department Head approval.*

**FRENCH 41 and 51**  
**Course #517, 519**  
**(Full Year)**

**2.50 Credits/Semester**

French 41 and 51 are offered concurrently in a two year cycle. This advanced college preparatory course reviews and refines all of the language skills learned in the previous years, in addition to introducing students to new grammar and vocabulary concepts. This course progresses at a more accelerated pace than French 42. Authentic sources, including films, news articles, and literary excerpts, serve as the basis for in-class discussion and provide context for vocabulary and grammar practice. Our cultural modules will allow students to gain an understanding of both historical and modern francophone cultures, including units of study focused on Algeria, Canada, and France. Writing skills are practiced through original compositions. Supplemental materials, such as French language music and new broadcasts, provide additional opportunities for conversation.

*Prerequisite: Final grade of C+ or better in French 31. Final grade of C+ or better in French 41.*

**FRENCH 42**  
**Course #521**  
**(Full Year)**

**2.50 Credits/Semester**

French 42 is offered in conjunction with French 31. Students will engage in all aspects of the French 31 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is a college preparatory course.

*Prerequisite: Successful completion of French 32 or a C+ or below in French 31.*

**FRENCH 50**  
**Course #515**  
**(Full Year)**

**2.50 Credits/Semester**

This honors college preparatory course is designed to provide advanced students with the guidance they need to continue discovering, learning and using the language in meaningful, creative and engaging contexts. The course is based on authentic resources that are used to develop the students' proficiency in the four skills: reading, writing, speaking and listening. This course offers a deeper overview of the literature, culture, art, and history of the Francophone world. Key grammar concepts will be reviewed. Classes will be conducted entirely in French. This may run with AP French 50.

*Prerequisite: Final grade of B- or better in French 40 or an A in French 41 or an A- in French 41 and teacher recommendation or Department Head approval.*

**AP FRENCH 50**  
**Course #516**  
**(Full Year)**

**2.50 Credits/Semester**

This Advanced Placement course is designed to prepare students for the AP French exam given each year in the spring. There is a continued emphasis on developing and refining a high level of student proficiency in listening, speaking, reading and writing, as well as in understanding the French-speaking world. The core program is a balance of advanced readings, grammar review, compositions and conversation. Supplemental materials include recordings, contemporary videos, newspapers, magazines and radio broadcasts. Extensive training in the organization and writing of compositions will be an integral part of the course. The course includes one session per cycle in the Language Laboratory to practice the listening and speaking sections in preparation for the AP exam.

*Prerequisite: A- or better in French 40*

**SPANISH 11**  
**Course #525**  
**(Full Year)**

**2.50 Credits/Semester**

In this advanced 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 activities. In addition, short reading passages, aural comprehension, writing activities, and grammar are integral components of the program. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

**SPANISH 12**  
**Course #527**  
**(Full Year, Placement by Department Head only)**

**2.50 Credits/Semester**

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 20**

**2.50 Credits/Semester**

**Course #526****(Full Year)**

This honors college preparatory course offers an intensive study of the Spanish language for students who have shown exceptional proficiency in the four language skills: listening, speaking, reading and writing. Students will increase their mastery of the language through a variety of activities including authentic texts, listening activities, formal and informal writing, and presentations. Thematic vocabulary will be introduced and applied throughout the year. Grammar studied in Spanish 1 will be reviewed and new tenses and grammar themes will be introduced. In addition, students will investigate the culture of the Spanish-speaking world.

*Prerequisite: A or better in Spanish 11 or Grade 8 Spanish or an A- and teacher recommendation in Spanish 11 or Grade 8 Spanish or Department Head approval.*

**SPANISH 21****2.50 Credits/Semester****Course #529****(Full Year)**

Spanish 21 is a continuation of Spanish 11 and continues to develop listening, speaking, reading and writing skills. Students will increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of the culture. At this stage, students will practice the skill of speaking through class discussions and presentations. Moreover, students will begin to write compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in Grade 8 Spanish, final grade of C- or better in Spanish 11.*

**SPANISH 22****2.50 Credits/Semester****Course #531****(Full Year)**

Spanish 22 offers the opportunity to move beyond the Spanish 12 curriculum and further practice listening, speaking, reading and writing skills. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is a college preparatory course.

*Prerequisite: Successful completion of Spanish 12, course #527. Students who complete the 12/22 combination will not have covered a sufficient amount of information to continue to 32.*

**SPANISH 30**  
**Course #530**  
**(Full Year)**

**2.50 Credits/Semester**

This honors college preparatory course will continue the intensive study of the Spanish language for students who have shown exceptional proficiency in the four language skills: listening, speaking, reading and writing. Students will increase their mastery of the language through a variety of activities including authentic texts, listening activities, formal and informal writing, and presentations. Thematic vocabulary will be introduced and applied throughout the year. Grammar studied in Spanish 20 will be reviewed and new tenses and grammar themes will be introduced. In addition, students will investigate the culture and history of the Spanish-speaking world.

*Prerequisite: B- or better in Spanish 20 or an A in Spanish 21 or an A- in Spanish 21 with teacher recommendation or Department Head approval.*

**SPANISH 31**  
**Course #533**  
**(Full Year)**

**2.50 Credits/Semester**

Spanish 31 is a continuation of Spanish 21 and continues to develop listening, speaking, reading and writing skills. This course progresses at a more accelerated pace than Spanish 32. Students will continue to increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of Hispanic cultures and communities. Students will practice and further develop speaking skills through class discussions, partner and group speaking activities and presentations. Moreover, students will continue to write short compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in Spanish 21.*

**SPANISH 32**  
**Course #535**  
**(Full Year)**

**2.50 Credits/Semester**

Spanish 32 is offered in conjunction with Spanish 31. Students will engage in all aspects of the Spanish 31 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is a college preparatory course.

*Prerequisite: C- or lower (passing grade) in Spanish 21.*

**SPANISH 40**  
**Course #537**  
**(Full Year)**

**2.50 Credits/Semester**

This honors college preparatory course reviews and refines all of the language skills learned in the previous years, in addition to introducing students to advanced grammar and vocabulary concepts. Students are expected to achieve a higher level of proficiency in listening, speaking, reading and writing, as well as to increase their knowledge and understanding of the Spanish-speaking world. In addition to a survey of Spanish and Latin American literature, this course includes readings on current cultural events of the Spanish-speaking world. Journals, research papers, oral reports and original compositions are required. This course also incorporates aspects of the AP exam to prepare students for the next step in their academic endeavors. Students will be expected to adhere to the Spanish only policy.

*Prerequisite: Final grade of B- or better in Spanish 30 or A in Spanish 31 or A- with teacher recommendation in Spanish 31 or Department Head approval.*

**SPANISH 41**  
**Course #541**  
**(Full Year)**

**2.50 Credits/Semester**

This movie course is an advanced college preparatory course that reviews and refines all of the language skills learned in the previous years, in addition to introducing students to new grammar and vocabulary concepts. This course progresses at a more accelerated pace than Spanish 42. Stimulus for conversation, vocabulary, and grammar concepts is achieved through use of short and feature films in the target language. Writing skills are practiced through journals and original compositions. Students are encouraged to express their thoughts and ideas in Spanish during class discussions, and through various group projects using podcasts and creating original videos.

*Prerequisite: Final grade of C- or better in Spanish 31.*

**SPANISH 42**  
**Course #545**  
**(Full Year)**

**2.50 Credits/Semester**

This movie course is a college preparatory course that is offered in conjunction with Spanish 41. Students will engage in all aspects of the Spanish 41 course with more teacher support. This course reviews and refines all of the language skills learned in the previous years, in addition to introducing students to new grammar and vocabulary concepts. Stimulus for conversation is achieved through an immersion of authentic cultural materials that includes excerpts from Spanish and Latin American literature, newspaper articles, original movies and cultural videos. Writing skills are practiced through journals and original compositions. Students are encouraged to express their thoughts and ideas in Spanish. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

*Prerequisite: Final grade of C- or better in Spanish 32.*

**SPANISH 50**  
**Course #539**  
**(Full Year)**

**2.50 Credits/Semester**

This honors college preparatory course is designed to provide advanced students with the guidance they need to continue discovering, learning and using the language in meaningful, creative and engaging contexts. The course is based on authentic resources that are used to develop the students' proficiency in the four skills: reading, writing, speaking and listening. This course offers a deeper overview of the literature, culture, art, and history of both Spain and Latin America. The first semester will focus on Spain and the second semester will focus on Latin America. Key grammar concepts will be reviewed. Classes will be conducted entirely in Spanish.

*Prerequisite: B- or better in Spanish 40 or an A in Spanish 41 or an A- with teacher recommendation in Spanish 41 or Department Head approval.*

**SPANISH 51**  
**Course #543**  
**(Full Year)**

**2.50 Credits/Semester**

This advanced college preparatory course is the continuation of the Spanish 41 video course. It is a unique and interesting way to learn Spanish; the linguistic portion is based upon the language materials that were previously studied and will be studied. Students see the language as a whole through videos. From these videos, students review grammar, increase their vocabulary, and investigate the culture and history of Spanish-speaking countries. Students will continue to improve their proficiency in the four language skills: listening, speaking, reading and writing. Students will be expected to adhere to the Spanish only policy.

*Prerequisite: Final grade of C+ or better in Spanish 41.*

**AP SPANISH 50**  
**Course #540**  
**(Full Year)**

**2.50 Credits/Semester**

This Advanced Placement course is designed to prepare students for the AP Spanish exam given each year in the spring. There is a continued emphasis on developing and refining a high level of student proficiency in listening, speaking, reading and writing, as well as in understanding the Spanish-speaking world. The core program is a balance of advanced readings, grammar review, compositions and conversation. Supplemental materials include recordings, contemporary videos, newspapers, magazines and radio broadcasts. Extensive training in the organization and writing of compositions will be an integral part of the course. The course includes one session per cycle in the Language Laboratory to practice the listening and speaking sections in preparation for the AP exam.

*Prerequisite: A- or better in Spanish 40.*

**SPANISH LITERATURE AND CULTURE I 41****2.50 Credits/Semester****Course #547****(Full Year)**

This advanced preparatory 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.*

**GERMAN 11****2.50 Credits/Semester****Course #549****(Full Year)**

In this advanced 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 activities. In addition, short reading passages, aural comprehension, writing activities, and grammar are integral components of the program. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

**GERMAN 20****2.50 Credits/Semester****Course #554****(Full Year)**

This honors college preparatory course offers an intensive study of the German language for students who have shown exceptional proficiency in the four language skills: listening, speaking, reading and writing. Students will increase their mastery of the language through a variety of activities including authentic texts, listening activities, formal and informal writing, and presentations. Thematic vocabulary will be introduced and applied throughout the year. Grammar studied in German 1 will be reviewed and new tenses and grammar themes will be introduced. In addition, students will investigate the culture of the German-speaking world.

*Prerequisite: Final grade of A or better in German 1 or A- and teacher recommendation in German 11.*

**GERMAN 21**  
**Course #553**  
**(Full Year)**

**2.50 Credits/Semester**

German 21 is a continuation of German 11 and continues to develop listening, speaking, reading and writing skills. This course progresses at a more accelerated pace than German 22. Students will increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of the culture. At this stage, students will practice the skill of speaking through class discussions and presentations. Moreover, students will begin to write compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in German 11.*

**GERMAN 22**  
**Course #555**  
**(Full Year)**

**2.50 Credits/Semester**

German 22 is offered in conjunction with German 21. Students will engage in all aspects of the German 21 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is a college preparatory course.

*Prerequisite: Successful completion of German 11.*

**GERMAN 30**  
**Course #556**  
**(Full Year)**

**2.50 Credits/Semester**

This third year honors college preparatory course is taught in conjunction with German 31 and 32. Students who receive honors credit have extra enrichment reading activities that they are expected to complete each quarter in addition to the regular course requirements. They also take the level 3 National German Exam in January.

*Prerequisite: Final grade of B- in German 20 or an A in German 21 or an A- in German 21 with teacher recommendation or Department Head approval.*

**GERMAN 31**  
**Course #557**  
**(Full Year)**

**2.50 Credits/Semester**

Students advance to the 3rd level book in the Deutsch Aktuell series. This course progresses at a more accelerated pace than German 32. They learn more difficult grammatical structures as well as read about historical figures, the German-speaking regions and significant events. Cultural differences are discussed in greater detail. Emphasis is on spoken language through role-play and in-class presentations. Short stories, fairy tales, legends, poetry, and a mystery reader round out the academic year. The final exam/project is based on an end of the year literature piece. The language lab and other technologies serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in German 21.*

**GERMAN 32**  
**Course #559**  
**(Full Year)**

**2.50 Credits/Semester**

German 32 is offered in conjunction with German 31. Students will engage in all aspects of the German 31 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding. This is a college preparatory course.

*Prerequisite: Successful completion of German 21.*

**GERMAN 40**  
**Course #561**  
**(Full Year)**

**2.50 Credits/Semester**

This fourth year honors college preparatory course is taught in conjunction with German 41 and 42. The teacher assigns special topics of interest and students present material to fellow classmates. Additional reading is required as well, with written work. Students take the level 4 National German Exam in January.

*Prerequisite: Final grade of B- in German 30 or an A in German 31 or an A- with teacher recommendation in German 31 or Department Head approval.*

**GERMAN 41**  
**Course #563**  
**(Full Year)**

**2.50 Credits/Semester**

Students continue in the Deutsch Aktuell textbook series completing 3 chapters in the 3rd level. This course progresses at a more accelerated pace than German 42. There is increased cultural coverage of the German-speaking countries of Germany, Austria and Switzerland. A variety of communicative activities like cooperative learning, role-play, pair and group work engage students in class. Short stories and other pieces of German literature are read in the 2nd semester. The final exam/project is based on an end of the year literature piece. This is an advanced college preparatory course.

*Prerequisite: Final grade of C- or better in German 31.*

**GERMAN 42**  
**Course #565**  
**(Full Year)**

**2.50 Credits/Semester**

In this college preparatory course students continue in the Deutsch Aktuell textbook series completing 3 chapters in the 3rd level, and will participate in all aspects of the German 41 course with more teacher support. There is increased cultural coverage of the German-speaking countries of Germany, Austria and Switzerland. A variety of communicative activities like cooperative learning, role-play, pair and group work engage students in class. Short stories and other pieces of German literature are read in the 2nd semester. The final exam/project is based on an end of the year literature piece. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

*Prerequisite: Successful completion of German 32.*

**LATIN 11**  
**Course #567**  
**(Full Year)**

**2.50 Credits/Semester**

In this advanced college preparatory course, students acquire basic vocabulary, forms, and grammar necessary for reading and writing simple Latin selections. Some emphasis is placed on oral Latin as well. The course delves deeply into the relationship between Latin, English and the Romance languages. Students also explore elements of Roman culture, ranging from Latin words and phrases used in English to geography, architecture, the calendar, state mottoes, the periodic table, and more.

**LATIN 20**  
**Course #568**  
**(Full Year)**

**2.50 Credits/Semester**

This second year honors college preparatory Latin course is taught in conjunction with Latin 21. Students cover the same language content, but are expected to complete additional projects, such as research papers and compositions.

*Prerequisite: Final grade of A in Latin 11 or A- with teacher recommendation in Latin 11.*

**LATIN 21**  
**Course #569**  
**(Full Year)**

**2.50 Credits/Semester**

After a brief review of the first year's work, students learn new grammar and vocabulary necessary for reading and writing Latin of increasing complexity. Practice in oral Latin continues, as does the emphasis on Latin as an aid to the comprehension of English and the Romance languages. Students delve further into Roman culture, exploring ancient manuscript production, viewing representations of the Romans on film, writing papers (in English) on Roman authors, and more. This is an advanced college preparatory course.

*Prerequisite: C- or better in Latin 11.*

**LATIN 30, 31, 40, 41****2.50 Credits/Semester****Course #570, 573, 576, 575****(Full Year)**

The focus at these levels of Latin study shifts to the reading of actual Latin texts. After a brief review of grammar, vocabulary, and forms, students read selections from works such as Cicero's orations, Pliny's *Letters*, Ovid's *Metamorphoses*, and Martial's *Epigrams*. Students also complete two composition assignments: the translation of famous English prose passages into Latin, and the creation of brief, original Latin poems. In addition, students will write research papers on Roman civilization, and continue the exploration of culture with epigraphy, numismatics, art, and more. A student enrolls in either 30/31 or 40/41; the courses meet simultaneously and have the same curriculum for a given year, but not for two years consecutively, which allows a student taking 30/31 one year and 40/41 the next to study different content. Honors students are expected to complete additional projects, research papers and compositions.

*Prerequisite: Latin 31: C- or better in Latin 21/20*

*Latin 30: B- or better in Latin 20 or A in Latin 21 or an A- with teacher recommendation in Latin 21 or Department Head approval..*

*Latin 41: C- or better in Latin 31/30*

*Latin 40: B- or better in Latin 30 or A in Latin 31 or an A- with teacher recommendation in Latin 31 or Department Head approval.*

**MANDARIN CHINESE 20****2.50 Credits/Semester****Course #584****(Full Year)**

Mandarin 20, built on Mandarin 11, offers an intensive study of the Chinese language for students who have shown exceptional proficiency in the four language skills: listening, speaking, reading and writing. Students will have opportunities to use authentic materials combined with technology to practice their four skills. Solid communication skills and fluent speaking skills will be stressed through longer dialogue, class presentations and group discussions. Writing ability will be emphasized through producing paragraphs, letters, picture descriptions and longer articles with more detailed information, wider topics and sophisticated structures in Chinese characters. Knowledge of Chinese culture, arts and history will be further incorporated throughout the course.

*Prerequisite: A or better in Mandarin Chinese 11 or Grade 8 Mandarin Chinese or an A- and teacher recommendation in Mandarin Chinese 11 or Grade 8 Mandarin Chinese or Department Head approval.*

**MANDARIN CHINESE 21****2.50 Credits/Semester****Course #581****(Full Year)**

This advanced college preparatory course is for students who, having successfully developed strong basic skills in Mandarin Chinese 11, and are ready to increase proficiency in oral comprehension and in the speaking, reading and writing skills of Mandarin Chinese. Readings are real-life dialogues emphasizing proper use of Mandarin with the goal of developing vocabulary and fluency. Written and oral precision will be emphasized. Authentic materials will be studied. Culture content is incorporated into instruction. Students can write short articles by either hand writing or typing Chinese characters.

*Prerequisite: C- or better in Mandarin Chinese 11.*

**MANDARIN CHINESE 30****2.50 Credits/Semester****Course #585****(Full Year)**

Mandarin Chinese 30, built on Mandarin 20, is designed for students who have mastered a variety of Chinese vocabulary and grammar. This course helps students to further develop integrated skills of reading, writing, listening and speaking from beginner high level to intermediate level on various topics. Students will have opportunities to use authentic materials combined with technology to practice their four skills. Solid communication skills and fluent speaking skills will be stressed through longer dialogue, class presentations and group discussions. Writing ability will be emphasized through producing paragraphs, letters, picture descriptions and longer articles with more detailed information, wider topics and sophisticated structures in Chinese characters. Knowledge of Chinese culture, arts and history will be further incorporated throughout the course.

*Prerequisite: B- or better in Mandarin Chinese 20 or an A in Mandarin Chinese 21 or an A- in Mandarin Chinese 21 with teacher recommendation or Department Head approval.*

**MANDARIN CHINESE 31****2.50 Credits/Semester****Course #583****(Full Year)**

Mandarin Chinese 31, built on Mandarin 21, is designed for students who have mastered basic Chinese vocabulary and grammar. This advanced college preparatory course helps students to further develop integrated skills of reading, writing, listening and speaking from beginner high level to intermediate level on various topics. Students will have opportunities to use authentic materials combined with technology to practice their four skills. Solid communication skills and fluent speaking skills will be stressed through longer dialogue, class presentations and group discussions. Writing ability will be emphasized through producing paragraphs, letters, picture descriptions and longer articles with more detailed information, wider topics and sophisticated structures in Chinese characters. Knowledge of Chinese culture, arts and history will be further incorporated throughout the course.

*Prerequisite: C- or better in Mandarin Chinese 21.*

**MANDARIN CHINESE 40****2.50 Credits/Semester****Course #586****(Full Year)**

Mandarin Chinese 40, built on Mandarin 30, is designed for students who mastered quite a lot of Chinese vocabulary and grammar. This course helps students to further develop integrated skills of reading, writing, listening and speaking from beginner high level to intermediate level on various topics. Students will have opportunities to use authentic materials combined with technology to practice their four skills. Solid communication skills and fluent speaking skills will be stressed through longer dialogue, class presentations and group discussions. Writing ability will be emphasized through producing paragraphs, letters, picture descriptions and longer articles with more detailed information, wider topics and sophisticated structures in Chinese characters. Knowledge of Chinese culture, arts and history will be further incorporated throughout the course.

*Prerequisite: B- or better in Mandarin Chinese 30 or an A in Mandarin Chinese 31 or an A- in Mandarin Chinese 31 with teacher recommendation or Department Head approval.*

**MANDARIN CHINESE 41****2.50 Credits/Semester****Course #587****(Full Year)**

Mandarin 41 is a continuation of Mandarin 31 and continues to develop listening, speaking, reading and writing skills. Students will increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of the culture. At this stage, students will practice the skill of speaking through class discussions and presentations. Moreover, students will begin to write compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

*Prerequisite: C- or better in Mandarin Chinese 31.*

**MANDARIN CHINESE 50****2.50 Credits/Semester****Course #588****(Full Year)**

This honors college preparatory course is designed to provide advanced students with the guidance they need to continue discovering, learning and using the language in meaningful, creative and engaging contexts. This course, built on Mandarin 40, will challenge students to raise their level of proficiency on all four language skills. Authentic material will be used to expose students to a high level of the language and to real life situations. There will be a deep overview of the literature, culture, art, and history of China. Key grammar concepts will be reviewed. Classes will be conducted entirely in Mandarin.

*Prerequisite: B- or better in Mandarin Chinese 40 or an A in Mandarin Chinese 41 or an A- in Mandarin Chinese 41 with teacher recommendation or Department Head approval.*

**MANDARIN CHINESE 51****2.50 Credits/Semester****Course #589****(Full Year)**

This advanced college preparatory course reviews and refines all of the language skills learned in the previous years, in addition to introducing students to new grammar and vocabulary concepts. Students will raise their level of proficiency in the four language skills. In addition, students will work on communicating in authentic and real life situations. Supplemental materials, such as films, music, and literature will be used to enhance students' knowledge of culture and history. From the beginning, the 51 students are encouraged to express their thoughts in Mandarin. The majority of the course will be taught in Mandarin.

*Prerequisite: Final grade of C- or better in Mandarin Chinese 41.*

**AP CHINESE LANGUAGE AND CULTURE 50****2.50 Credits/Semester****Course #592****(Full Year)**

The AP Chinese Language and Culture course in Mandarin Chinese emphasizes communication by applying the interpersonal, interpretive, and presentational modes of communication to real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. This course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese. The AP Chinese Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products, (e.g. tools, books, music, laws, conventions, institutions), practices (patterns of social interactions within a culture), and perspectives (values, attitudes, and assumptions).

*Prerequisite: A- or better in Mandarin Chinese 40.*

## FINE AND PERFORMING ARTS

ALL FINE AND PERFORMING ARTS COURSES COUNT TOWARD THE 2-SEMESTER NHS FINE ARTS GRADUATION REQUIREMENT FOR THE CLASS OF 2016 AND BEYOND.

TIER ONE ART CLASSES DO NOT REQUIRE A PREREQUISITIE, TIER TWO CLASSES REQUIRE ONE CORRESPONDING PREREQUISITE, TIER THREE CLASSES REQUIRE TWO CORRESPONDING PREREQUISITIES.

HONORS PORTFOLIO AND AP ART REQUIRE A MINIMUM OF FOUR PREREQUISITES AND OTHER REQUIREMENTS (SEE CHART)

### VISUAL ARTS

<b>VISUAL ART CURRICULUM FLOW CHART</b>						
Tier 1 Electives (Visual Arts courses that can be taken with no prerequisite)						
Sketchbooking	Sketchbooking	Sketchbooking	Sketchbooking	Sketchbooking	Sketchbooking	Sketchbooking
Tier 2 Electives (1 prerequisite)						
Sketchbooking II	Sketchbooking II	Sketchbooking II	Sketchbooking II	Sketchbooking II	Sketchbooking II	Sketchbooking II
Tier 3 Electives (2 prerequisites)						
<b>AP and HONORS TRACKS</b>						
Drawing/Painting Track		Drawing/Painting Track		Drawing/Painting Track		
Required Prerequisites		Required Prerequisites		Required Prerequisites		
SEMESTER Drawing & Painting I	SEMESTER Drawing & Painting I	SEMESTER Drawing & Painting I	SEMESTER Drawing & Painting I	SEMESTER Drawing & Painting I	SEMESTER Drawing & Painting I	
SEMESTER Art Elective 1	SEMESTER Art Elective 1	SEMESTER Art Elective 1	SEMESTER Art Elective 1	SEMESTER Art Elective 1	SEMESTER Art Elective 1	
Portfolio review for admission to Honors and AP		Portfolio review for admission to Honors and AP		Portfolio review for admission to Honors and AP		
*HONORS PORTFOLIO * (Prerequisites: B+ in Drawing + Painting 1 & 2, plus 2 electives and permission of the instructor) Full Year – focus is drawing		*HONORS PORTFOLIO * (Prerequisites: B+ in Drawing + Painting 1 & 2, plus 2 electives and permission of the instructor) Full Year – focus is drawing		*HONORS PORTFOLIO * (Prerequisites: B+ in Drawing + Painting 1 & 2, plus 2 electives and permission of the instructor) Full Year – focus is drawing		

*Students may skip Honors and go to AP with other prerequisites – though Honors is highly suggested for the 2D art student	*Students may skip Honors and go to AP with other prerequisites – though Honors is highly suggested for the 2D art student	*Students may skip Honors and go to AP with other prerequisites – though Honors is highly suggested for the 2D art student
AP STUDIO ART (Prerequisite: B+ in Drawing & Painting I, Drawing & Painting II, and two other visual art electives as well as Portfolio Review and permission of instructor) Full Year – Focus is drawing	AP STUDIO ART (Prerequisite: B+ in Drawing & Painting I, Drawing & Painting II, and two other visual art electives as well as Portfolio Review and permission of instructor) Full Year – Focus is drawing	AP STUDIO ART (Prerequisite: B+ in Drawing & Painting I, Drawing & Painting II, and two other visual art electives as well as Portfolio Review and permission of instructor) Full Year – Focus is drawing

**MUSIC**

<i>BAND</i>	Concert Band 11 (full year) (Honors level not available until sophomore year)	Music Theory & Technology 11 (Semester 1) Piano 11 (Semester) School of Rock 11 (Semester 2)		Jazz Band – an after school class. Participants must be involved in concert band or choir.
<i>CHORUS</i>	Concert Choir 11 (full year) (Honors level not available until sophomore year)	Adv. Concert Choir 11 (full year) Music Theory & Technology 11 (Semester 1) Piano 11 (Semester) School of Rock 11 (Semester 2)	Chamber Singers – An all female choir or a choir for Soprano and Alto voices. Not available until sophomore year and by audition only.	Men’s Choir – An all male Choir or a choir for Tenor and Bass voices. This choir meets during Red Day CDS

## THEATRE AND MEDIA ARTS

<i>THEATRE</i>	Theatre GSS 11 (Semester 1) (Games, Script Writing, Scene Work) (can be repeated)	Theatre PEI 11 (Semester 2) (Performance, Exercise & Improv) (can be repeated)	
<i>MEDIA</i>	Intro to Web Design 11 (Semester)	Advanced Web Design I 21 (Semester)*	Advanced Web Design II 20 (Semester)*
	Video Production 11 (Semester)		
	Intro to Animation 11 (Semester)	Advanced Game Design & Animation 20, 21 (Semester 2)	
	Television Broadcasting 11 (Semester)		Advanced Television Broadcasting 11 (Semester)* (can be repeated)
	iPad Publishing 11(Semester)		
	Game Design & Development 11(Semester)	Advanced Game Design & Animation 20, 21(Semester 2)	
	Electronic Music 11 (Semester)		
	Yearbook 11 (full year)	Advanced Yearbook 21 (full year)*	

\*With Instructor Permission

The fine and performing arts department is comprised of four related but distinct disciplines: visual art, music, theatre and media arts. It is the goal of the department to use the arts (visual art, music, theatre, and media) to prepare students for the 21<sup>st</sup> century by using a specific discipline to foster critical thinking, communication, collaboration and creativity. While we believe there is value in learning an art itself, we also realize that the arts' lessons (visual arts, music, theatre, and media) go beyond art itself or the completion of a product. The outcomes we expect for students differ based on disciplines but the common academic expectations are as follows:

- Use the arts to explore and express ideas, feelings, and beliefs
- Know and understand the nature of the creative process, the characteristics of visual art, music, dance, and theatre, and their importance in shaping and reflecting historical and cultural heritage
- Analyze and make informed judgments regarding the arts
- Develop skills and participate in the arts for personal growth
- Practice problem solving
- Become knowledgeable and ethical users of various forms of technology
- Strengthen interpersonal skills in regards to teamwork, leadership, and self-motivation

**All courses within the Fine, Performing and Media Arts Department are considered college preparatory.**

**ALL FINE AND PERFORMING ARTS COURSES COUNT TOWARD THE 2-SEMESTER NHS FINE ARTS GRADUATION REQUIREMENT FOR THE CLASS OF 2016 AND BEYOND.**

**TIER ONE ART CLASSES DO NOT REQUIRE A PREREQUISITE, TIER TWO CLASSES REQUIRE ONE CORRESPONDING PREREQUISITE, TIER THREE CLASSES REQUIRE TWO CORRESPONDING PREREQUISITES.**

**HONORS PORTFOLIO AND AP ART REQUIRE A MINIMUM OF FOUR PREREQUISITES AND OTHER REQUIREMENTS (SEE CHART)**

**HUMANITIES 31, 30**

**2.50 Credits/Semester**

**Course #239a, 240a**

**(Semester 1 Only, Open to Grades 11-12)**

**This course can either fulfill part of the Fine/Performing Art or Social Studies Elective Requirement.**

**SEE FULL DESCRIPTION UNDER SOCIAL STUDIES)**

## VISUAL ARTS

### **CERAMICS I 11** **Course #627a, 627b** **(Semester)**

**2.50 Credits/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 basic understanding of the firing process. Emphasis will be given to the development of a personal style.

*Prerequisite: None.*

*(Tier One)*

### **CERAMICS II 21 (previously Advanced Ceramics)** **Course #628a, 628b** **(Semester)**

**2.50 Credits/Semester**

This advanced college preparatory course, building on the technical and artistic concepts introduced in Ceramics I, 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.*

*(Tier Two)*

### **CERAMICS III 31** **Course #629a, 629b** **(Semester, Open to Grades 10-12)**

**2.50 Credits/Semester**

Ceramics III is an advanced college preparatory course for the ceramics student who has graduated from Ceramics I and II, and shows exceptional dedication to the development of their artistic voice in conjunction with building their skills and understanding of ceramics. This course will focus on further developing the student's wheel and hand building skills through intensive workshops, student teaching, and diving deeper into the connection of form and function – an essential concept that all ceramic artists must explore. Students will begin to learn about how a ceramics studio runs and do their part to contribute to the studio community while creating a variety of substantive functional and nonfunctional artwork in Ceramics III.

*Prerequisite: Grade of B+ or better in Ceramics II.*

*(Tier Three)*

**DIGITAL PHOTOGRAPHY I 11****2.50 Credits/Semester****Course #679a, 679b****(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**(Tier One)***DRAWING/PAINTING I 21****2.50 Credits/Semester****Course #603a****(Semester 1 only, Open to Grades 9-12))**

In this advanced college preparatory course, students will further develop and strengthen their observational skills. These skills will be developed through portraiture, figure observation, still life, and landscape. Drawing media such as charcoal, pencil, colored pencil, pastel, as well as, pen and ink, will be introduced. In addition to other assignments, students are expected to create five sketches in their sketchbook for each term.

*Prerequisite: None**(Tier One)***DRAWING/PAINTING II 21****2.50 Credits/Semester****Course #604b****(Semester 2 only, Open to Grades 9-12)**

This advanced college preparatory course builds upon the skills and concepts covered in the Drawing and Painting I course and is designed for students to continue exploration with 2-Dimensional space. Projects and exercises are designed to encourage critical thinking skills, expand use of mediums, as well as, promote mastery of skills in the visual arts. In addition to other assignments, students are expected to create five sketches in their sketchbook for each term.

*Prerequisite: Grade of B or better in Drawing/Painting I.**(Tier Two)***GRAPHIC DESIGN 11****2.50 Credits/Semester****Course# 673a, 673b****(Semester, Open to Grades 9-12)**

This is an advanced college preparatory class for students interested in graphic art and design, focused on print media, and Adobe software. This course will illustrate how design supports mediums such as magazines, books, posters, and CD covers, and how the Adobe visual design suite (Photoshop, Illustrator and InDesign) can help artists create materials for these mediums. Other topics covered will be typography and the history of graphic design. Students will leave this class with a solid introduction to the basics of Adobe Photoshop and InDesign and they will begin to touch on some elements with Adobe Illustrator.

*Prerequisite: None**(Tier One)*

**ADVANCED GRAPHIC DESIGN I 21****2.50 Credits/Semester****Course #674b****(Semester 2, Open to Grades 9-12)**

This advanced college preparatory class will provide students with an opportunity to take the skills they learned in Intro to Graphic Design and apply them to specific print design projects. In Intro to Graphic Design, students gain an understanding of the Adobe Photoshop and InDesign basics. In this advanced class students will continue to use these programs and be introduced to Adobe Illustrator. They will apply the basic skills learned in Intro to Graphic Design to higher-level thinking and more in depth projects. Students will learn about typography, packaging design, visual identity & branding, book & magazine layout, poster and promotional design.

*Prerequisites: Grade of B or better in Graphic Design II.*

*(Tier Two)***ADVANCED GRAPHIC DESIGN II 20****2.50 Credits/Semester****Course #678b****(Semester 2, Open to Grades 10-12)**

This honors college preparatory course will provide students with an opportunity to gain **ACA (Adobe Certified Associate)** certification in **Photoshop**, **InDesign** or **Illustrator**. Students may choose the software they would like to gain certification in, based on their interests. All three programs are a part of Adobe's Visual Design curriculum. Becoming **ACA certified** through Adobe is an accomplishment that can set students apart and prepare them to be competitive members in college and work. Students will work with Adobe approved course material to prepare for the exam. The final exam will be taken at the end of the semester, administered through CertiPort by the teacher in the classroom. Students will also develop an independent design project, present their proposal to the teacher for approval, and develop this concept while preparing for the exam.

*Prerequisites: Grade of B+ or better in the following courses: Intro to Graphic Design, Advanced Graphic Design I and prior teacher approval.*

*(Tier Three)***ART FOUNDATIONS: IDEAS, CONCEPTS AND SKILLS 11****2.50 Credits/Semester**

(formerly Introduction to Art)

**Course #607a, 607b****(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*

*(Tier One)*

**HONORS PORTFOLIO 2D 30****2.50 Credits/Semester****Course #619****(Full Year, Open to Grades 11-12)**

This honors college preparatory course is a full year for juniors and seniors. Students will create pieces for a portfolio through self-expression and the exploration of various media in a series of guided and open-ended assignments. Students must be able to work independently on assignments that are tailored to their interests and strengths. In addition to other assignments, students are expected create five sketches in their sketchbook for each term. Students should have a strong interest in art.

*Prerequisite: B+ or better in the following: Drawing and Painting I, Drawing and Painting II, and two other Visual Art electives, as well as permission of the instructor.*

*\*Honors Portfolio is no longer a requirement for AP Studio Art but is a highly suggested class for a student artist wishing to focus on two-dimensional work.*

**PRINTMAKING 11****2.50 Credits/Semester****Course #677b****(Semester 2 only)**

This advanced college preparatory course will introduce basic printmaking techniques with a focus on process and layering to develop images over time. Printmaking combines drawing, color, collage, and design, and allows for the production of originals and multiples with opportunities for variation and reworking of images. Techniques learned in printmaking can be used in conjunction with other areas in the visual arts. Topics include monotype, monoprint, relief, collagraph, and dry point engraving. Students will expand their visual repertoire and critical thinking skills in order to become more expressive and aesthetically aware in their artwork.

*Prerequisite: None*

*(Tier One)*

**SKETCHBOOKING 11****2.50 Credits/Semester****Course #608a, 608b****(Semester, Grades 9-12)**

This advanced college preparatory course is designed for the student interested in personal reflection and media exploration. Students are required to maintain a sketchbook throughout the course. Class projects are developed for independent growth and experimentation. Sketchbooks will be checked every cycle. Students should spend 30 minutes every other evening working in their sketchbooks as homework.

*Prerequisite: None*

*(Tier One)*

**ADVANCED SKETCHBOOKING 11****2.50 Credits/Semester****Course #676b****(Semester 2, Grades 9-12)**

This advanced college preparatory course will be composed of color theory exercises – triad, monochromatic, complementary, analogous, double complementary, split complementary and tetrad. The materials used will include the pencil, marker, colored pencil, oil pastel, acrylic paint, and watercolor. Techniques explored are hatching, crosshatching, scribble blurring, smudging, blending, flat wash gradation, resist, wet on wet, splatter, alcohol, and plastic wrap. Styles and artists will include Pointillism, Cubism, Surrealism, Kandinsky, Klee, Seurat, Picasso and Haring. The second term will focus on a personal thematic concentration using the theories, materials, techniques, styles and artists. This course was developed as a request from students that have already taken the Sketchbooking class, and is a direct response to the students' suggestions.

*Prerequisite: Grade of B or better in Sketchbooking 11.*

*(Tier Two)*

**AP STUDIO ART 40**

**2.50 Credits/Semester**

**Course #620**

**(Full Year, Open to Grades 11-12)**

This Advanced Placement course is intended for the highly motivated student who is seriously interested in the study of art. Following the College Board Advanced Placement guidelines, students will work on an intensive central focus as they create a portfolio showcasing quality in concepts, elements, and skills. Weekly sketchbook entries, research, rigorous assignments outside of class, and consultations and critiques with the instructor are required. Summer work is assigned to be completed in advance of school beginning. Portfolio preparation is based on the AP requirements.

*Prerequisites: B+ or better in the following and based on interest:*

*Drawing and Painting Concentration: Drawing and Painting I, Drawing and Painting II, and two other Visual Art electives, as well as, permission of the instructor and portfolio review. Honor Portfolio is suggested but not required.*

*Two Dimensional Concentration: Drawing and Painting I, Drawing and Painting II or Printmaking, Graphic Design, Advanced Graphic Design, as well as, permission of the instructor and portfolio review.*

*Three-Dimensional Concentration: Ceramics I, II, and III, and one other art elective, as well as, permission of the instructor and portfolio review.*

**YEARBOOK 11**

**2.50 Credits/Semester**

**Course #655**

**(Full Year, Open to Grades 9-12)**

*Prerequisite: None.*

**(SEE UNDER MEDIA ARTS FOR FULL DESCRIPTION)**

**ADVANCED YEARBOOK 21**

**2.50 Credits/Semester**

**Course #657**

**(Full Year, Open to Grades 10-12)**

*Prerequisite: Successful completion of Yearbook 11 and teacher approval.*

**(SEE UNDER MEDIA ARTS FOR FULL DESCRIPTION)**

## MUSIC

### **CONCERT BAND 11**

**2.50 Credits/Semester**

**Course #911**

**(Full Year, Grades 9-12)**

Concert Band 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 in this class will be encouraged to attend sectional practice (sectional practices will be held before or after school every day). This college preparatory course will build upon the musical skills taught at the middle school level. Students will further 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. Attendance at all performances is mandatory, including the Veteran's Day and memorial day parades, home football games, and the Thanksgiving Day football game (as well asplayoffs if necessary). The band may perform at competition. The different sections of Concert Band may play different repertoire but will play similar level music as well as shared pieces.

### **ADVANCED CONCERT BAND 20, 21**

**2.50 Credits/Semester**

**Course #915, 914**

**(Full Year, Grades 10-12)**

Advanced Band is for band students who are ready to play more challenging repertoire and take a key role in leadership. All Advanced Band students must be enrolled in one of the Advanced Band Leadership classes. Advanced Band Students will be expected to participate in and lead sectionals (sectional practices will be held before or after school every day). The focus of Advanced Band is to use music to learn about self, others, and the world while creating and responding to excellent music and encouraging others to share in this experience. Students in this class will be expected to promote and support their sections and encourage fellow students to grow their skills. Additionally Advanced Band Students will play more challenging repertoire as well as support overall band at football games and hometown parades (Memorial and Veterans Day). Students will further develop their ability to connect with and communicate through music by the furthering of their ensemble skills (technical accuracy, dynamics, balance, and blend), listening, responding, playing and reading music. The course will introduce students to various playing techniques as well as various genres styles, and historical works. Advanced Band will play at least four concerts a year, participate in all home football games (including Thanksgiving Day Game and possible playoff games), march in two parades, and possibly attend various competitions. Attendance at all performances is mandatory, including the Veteran's Day and Memorial Day parades, and the Thanksgiving Day football game.

**BAND LEADERSHIP CDS****0.50 Credits/Semester****Course #916****(Full Year, Grades 10-12)**

This course is a leadership course required for students in Advanced Band. Band Leadership will prepare band students to serve as leaders in band. Students will learn how to use leadership to encourage other students to gain greater ownership and proficiency with band. Advanced Band students will be expected by 2nd semester to lead sectional practices (voluntary for Concert Band Students / mandatory for Advanced Band Students). Students will be taught positive leadership styles, conflict resolution, effective encouragement and communication, specific positive feedback, non judgemental suggestions for growth, as well as how to lead a band section and utilize music ( scales, musical warm-ups, improvisation, select repertoire) to teach greater musical competency and community. Students signed up for Advanced Band are automatically enrolled in one of the Advanced Band Leadership CDS. Two sections of this class are offered on Red 2 CDS or Blue 2 CDS.

**HONORS CONCERT BAND 20****2.50 Credits/Semester****Course #912****(Full Year, Grades 10-12)**

Honors Symphonic Band is a regularly scheduled class that meets with Symphonic Band. The additional work for honors students occurs outside of the regularly scheduled class. Students at the honors level must either receive instruction through private lessons with a qualified instructor for their instrument or participate in a directed outside instrumental ensemble. All students are required to keep a practice log that is signed by their instructor or by the director of their outside organization. In addition to the requirements of Concert Band, Honors Concert Band students are required to perform at all home football games, pep band performances, parades, and the Thanksgiving game as well as playoff games when Natick qualifies. As part of assessment, all honor students must participate in two public student group recitals (one at the end of each semester). The NHS band director will choose recital pieces for any student not taking private lessons. In addition, students may be assigned periodic research that relates to musical study.

*Prerequisite: Permission of Instructor. To remain in the Honors Music Program students need to do the following: maintain a B average, be involved in private lessons or be involved in some outside directed ensemble, and fully participate in the concerts and activities (including recitals) of their respective ensembles.*

**JAZZ ENSEMBLE 14****1.50 Credits/Semester****Course #859****(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, Thursday night rehearsals, concerts, as well as, competitions, and private weekly lessons.*

**CONCERT CHOIR 11****2.50 Credits/Semester****Course #872****(Full Year, Open to Grades 9-12)**

This advanced college preparatory course is open to all voice students regardless of experience with music. Interested new students may be asked to sing a low-stress audition for the choral director and will be welcomed into the choir. No experience is necessary, but the ability to read music is a plus. Students will learn the basics of singing, hearing, reading, and understanding music in the fall semester. The course continues in the spring with an advanced focus on these four areas. The choir performs four concerts, is invited to sing at various community events, travels locally and regionally, and sometimes competes at choral festivals. Advanced singers are encouraged to audition for regional and state honors choirs, take the course for honors credit, and/or run for an officer position within the choir.

*Prerequisite: Ability to read music or singing experience a plus, but not required.*

**ADVANCED CONCERT CHOIR 21****2.50 Credits/Semester****Course #876****(Full Year, Open to Grades 10-12)**

Experienced musicians will be placed in this choir if they demonstrate the ability to sing music at an advanced level. Students will learn advanced techniques for singing, hearing, reading, and understanding music throughout the year. The choir performs four concerts, is invited to sing at various community events, travels locally and regionally, and competes at choral festivals each year. Advanced singers are encouraged to audition for regional and state honors choirs, take the course for honors credit, and/or run for an officer position within the choir. This is an advanced college preparatory course.

*Prerequisite: Upon recommendation of high school music teacher.*

**HONORS ADVANCED CONCERT CHOIR 20****2.50 Credits/Semester****Course #878****(Full Year, Grades 10-12)**

This honors course meets with Advanced Concert Choir, and enrolled students are expected to be leaders within this large ensemble. Expectations for practice, performance, leadership, and work products are much higher for honors students; however, most additional requirements occur outside of the regularly scheduled class. Honors students should participate in private voice instruction with a qualified voice teacher or be a part of an approved ensemble outside of the high school. Additionally, all honors students must participate in two public student group recitals throughout the year—one occurring at the end of each semester.

*Prerequisite: Enrolled in Advanced Concert Choir.*

**CHAMBER SINGERS 11****2.50 Credits/Semester****Course #918****(Full Year, Open to Grades 10-12)**

Open to advanced singers at Natick High School by audition only where admittance is based on reading ability, vocal quality, and dedication. This is a smaller ensemble of selected, female singers who study an advanced level of music. The course will provide an advanced focus on singing, hearing, reading, and understanding music in the fall semester. The choir performs four concerts, is invited to sing at various community events, travels locally and regionally, and competes at choral festivals each year. Furthermore, the Chamber Singers will travel and perform independently from the other choral ensembles each year.

*Prerequisite: Soprano and alto voices by audition only. Not available until sophomore year.*

**MEN'S CHOIR 14****1.00 Credits/Semester****Course #898****(Full Year, Open to Grades 9-12)**

Open to all men at Natick High School. No experience is necessary; however, experience reading music or singing is a plus. Interested new students may be asked to sing a low-stress audition for the choral director and will be welcomed into the choir. Students will learn the basics of singing, hearing, reading, and understanding music in the fall semester. The course continues in the spring with an advanced focus on these four areas. The choir performs four concerts, is invited to sing at various community events, travels locally and regionally, and competes at choral festivals each year. Furthermore, the Men's Choir will travel and perform independently from the other choral ensembles each year. This choir meets on selected evenings for two hours each week. This choir meets on red days during CDS.

*Prerequisite: Tenor and bass voices by entry-level audition only. Ability to read music or singing experience a plus, but not required.*

**MUSIC THEORY AND TECHNOLOGY 11****2.50 Credits/Semester****Course #889a****(Semester 1 only, Open to Grades 9-12)**

This first semester advanced college preparatory course held in our state-of-the-art midi lab 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 concepts of music making and music reading. The class is designed to enable students to be more hands-on and creative. Students will be introduced to the fundamentals of the piano keyboard as they move through theory basics to composing original composition. Sight-reading and rhythmic/melodic aural training are also studied in this course, as well as, an introduction to music notation and recording software. All students who have any interest in music are encouraged to take this course.

*Prerequisite: None.*

**PIANO 11****2.50 Credits/Semester****Course #890a,****(Semester 1 only, Open to Grades 9-12)**

This first semester, advanced college preparatory course is an instructor-led, group introduction to playing the piano for students at all ability levels. Students will gain technical skills on the instrument, learn to read music and understand basic music theory, be encouraged to compose music on their own, and become comfortable playing the simple chord-progressions that make up most popular music. Four small projects make up the academic requirement and are able to be adapted for students from any experience level. Music theory and music history will also play a prominent role in this class.

*Prerequisite: No experience is necessary, but students who have taken lessons before are welcome to take the course as well.*

**ADVANCED PIANO 11****2.50 Credits/Semester****Course #892b****(Semester 2 only, Open to Grades 9-12)**

This second semester, advanced college preparatory course is an instructor-led continuation of piano study. Students will continue to gain technical skills on the instrument, learn to read music and understand intermediate music theory, be encouraged to compose music on their own, and become comfortable playing intermediate and advanced piano repertoire. Four small projects make up the academic requirement and are able to be adapted for students from any experience level. Music theory and music history will also play a prominent role in this class.

*Prerequisite: Piano 11 or permission from high school music teacher.*

**SCHOOL OF ROCK 11****2.50 Credits/Semester****Course #893b****(Semester 2 only, Open to students in Grades 9-12))**

This is a one-semester advanced college preparatory class for guitarists, drummers, and singers – anyone with a band or interested in being in a band will be given opportunity to practice, experiment, perform, receive feedback and begin the process again. The course will involve group and individual projects with the focus on performance and musical improvisation. These instruments are in limited supply so it would be beneficial if students had their own instruments.

*Prerequisite: Must be able to play guitar, drum, and/or sing*

## THEATRE ARTS

### **THEATRE GSS 11 – Games, Script Writing, and Scene Work** **2.50 Credits/Semester** **Course #651a**

**(Semester 1, Can be repeated, Open to Grades 9-12)**

In this advanced college preparatory course, students will explore the performance aspects of theatre. Students will engage in improvisation, theatrical critique, script analysis, and character development. Theatre games are utilized in class to create a sense of community and trust, as well as to build focus and acting skills. Students will study basic acting skills, directing techniques, the fundamentals of playwriting, and some technical theatre. The class is activity-oriented and much class time is spent preparing and performing for the class and eventually a guest audience. Students may elect to take this class multiple years.

### **THEATRE PEI 11 - Performance, Exercises, and Improv** **2.50 Credits/Semester** **Course # 652b**

**(Semester 2, Can be repeated, Open to Grades 9-12)**

In this advanced college preparatory course students will fine-tune their acting skills through improvisation exercises and performances, as well as, through crafting original material. Students will learn to play the moment, and establish a world and character while collaborating with other actors and the audience. Aside from improv games and performances, students will work with monologues and dramatic texts, as well as try their hand at playwriting. Students will draw upon their own life and experiences to write a one person show for performance. This class is activity-oriented and will include multiple performances in front of the class and/or other audiences. These performances will be a mix of written and improvised texts. Students may elect to take this class multiple years.

*Prerequisite: None required, but taking Theatre GSS first could be helpful.*

## MEDIA ARTS

### **INTRODUCTION TO ANIMATION 11** **2.50 Credits/Semester** **Course #482a, 482b**

**(Semester, Open to Grades 9-12)**

This advanced college preparatory class explores animation of all sorts. Students will look at the history of animation, types of animation, and the rules of animation. The class will begin with familiar types of work and advance over the semester to more complicated processes. Students also write their own sound tracks including sound effects. The second half of the course allows students to choose computer generated animation, Claymation, stop motion animation or cel animation as a project. Every student will be comfortable in and enjoy this course regardless of artistic abilities.

### **ELECTRONIC MUSIC 11** **2.50 Credits/Semester** **Course #481a, 481b**

**(Semester, Open to Grades 9-12)**

This is an advanced college preparatory course. No prior experience in digital recording or music is necessary. Students will explore their own musical interests through creative song and music projects while learning how the science of sound affects the music we listen to every day. Topics covered include musical notation and arrangement, basic sound synthesis, audio effects, and music production software.

### **GAME DESIGN & DEVELOPMENT 11** **2.50 Credits/Semester**

**Course #486a, 486b**

**(Semester, Open to Grades 9-12)**

This advanced college preparatory course will evaluate what games are, how they are created, and what makes them fun (or not). We will discuss the process of game development from multiple perspectives and give students a comprehensive introduction to programming computer games in a variety of development environments. Students will create their own games of all types and genres – board games, card games, athletic games, computer/video games and more. Students will also evaluate popular board, card and video game titles to break them down and identify what makes them enjoyable to play.

**ADVANCED GAME DESIGN & ANIMATION 20, 21**

**2.50 Credits/Semester**

**Course #477b**

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

In this advanced college-preparatory course, students will create complex video games and interactive environments using custom-built characters and assets. They'll also perform in-depth analysis of existing games, breaking them down to identify what makes them fun and which elements they can use in their own creations. Advanced topics like graphics, physics, networking, animation and audio integration will be explored alongside comprehensive computer science instruction. Students will work individually and in development teams to build their games from inception to completion, and will be able to release their games on a variety of app stores and platforms.

*Prerequisite: Game Design & Development or Instructor Permission. For honors credit: A- or better in Game Design & Development II, or an A- or better in Intro to Animation II, or Instructor permission.*

**GRAPHIC DESIGN 11**

**2.50 Credits/Semester**

**Course #673a, 673b**

**(Semester, Open to Grades 9-12)**

*Prerequisite: None*

**(SEE UNDER VISUAL ARTS FOR DESCRIPTION)**

**ADVANCED GRAPHIC DESIGN I 21**

**2.50 Credits/Semester**

**Course #674a, 674b**

**(Semester, Open to Grades 9-12)**

*Prerequisites: Graphic Design II.*

**(SEE UNDER VISUAL ARTS FOR DESCRIPTION)**

**ADVANCED GRAPHIC DESIGN II 20**

**2.50 Credits/Semester**

**Course #278a, 278b**

**(Semester, Open to Grades 10-12)**

*Prerequisites: Intro to Graphic Design II, Advanced Graphic Design I and permission of instructor.*

**(SEE UNDER VISUAL ARTS FOR DESCRIPTION)**

**TELEVISION BROADCASTING 11****2.50 Credits/Semester****Course #484a, 484b****(Semester, Open to Grades 9-12)**

This advanced college preparatory course follows the production of a broadcast show from concept to product. Students will develop a familiarity with the artistic, aesthetic and technical aspects of television. Students will learn: to operate the equipment in the Natick High School television studio; to research and write copy for a monthly news show, and to direct and edit a news show, and conduct effective interviews. Students will help design the nature of the shows that are produced in the news studio. Students in this course will also work with other classes and staff to produce TV shows in the studio.

**ADVANCED TELEVISION BROADCASTING 11****2.50 Credits/Semester****Course #658a, 658b****(Semester, Can be repeated, Open to Grades 11-12)**

Continue what you have learned in Introduction to TV Broadcasting. Gain more advanced skills in anchoring, using special effects, lighting, and audio. Advance your broadcast writing skills. Use professional level cameras in the field. Assist with shooting and editing school events and classes. *Prerequisite: Television Broadcasting 11 and permission of instructor.*

**VIDEO PRODUCTION 11****2.50 Credits/Semester****Course #465a, 465b****(Semester, Open to Grades 9-12)**

Students will learn the basics of video production including: editing, camera use, shot composition, interview skills, writing for an audience, and the basics of audio and lighting. In addition, students will explore how music affects our movie/television experience. Students will work on projects during the semester for broadcast on local cable television – Pegasus. Project types will include: documentaries, advertising, and a creative video of the student's choice. This course will start with the essentials to create a short video and build upon skills learned to expand to a variety of types of productions. Students of all skill levels will be comfortable in this advanced college preparatory class.

**INTRODUCTION TO WEB DESIGN 11****2.50 Credits/Semester****Course #497a, 497b****(Semester, Open to Grades 9-12)**

The purpose of this advanced college preparatory course is to prepare you for a future where you can properly harness fundamental web design skills. The course covers Hypertext Markup Language (HTML), CSS Style Sheets and introduces students to Dreamweaver, Photoshop and PDF writer as it pertains to Web Design. Students will learn project management skills while working on peer group activities and independent assignments. Major projects will focus on Design skills in Photoshop and building a portfolio Website using Adobe Dreamweaver. Many professions value an employee who is proficient in the basics of HTML, Adobe Dreamweaver and Photoshop. This class will provide you with the skills necessary to apply these technologies in such a way that you could use them to create educational and personal projects on your own time.

**ADVANCED WEB DESIGN I 21****2.50 Credits/Semester*****(Instructor Permission Required)*****Course #469a, 469b****(Semester, Open to Grades 9-12)**

The purpose of this advanced college preparatory 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. The course will allow students to create an E-portfolio, which will be used to showcase their work when applying to colleges or jobs. 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 one will serve a different purpose and audience. Many professions value an employee who is proficient and/or advanced in HTML, Adobe Dreamweaver, Photoshop and Illustrator. This class will provide students 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 II and teacher approval.*

**ADVANCED WEB DESIGN II 20****2.50 Credits/Semester*****(Instructor Permission Required)*****Course #487a, 487b****(Semester, Open to Grades 10-12)**

The purpose of this honors college preparatory course is to confidently transition students into the professional world of Web Design and Development. Students will focus on preparing for the Adobe Dreamweaver CS5 certification exam. The teacher will administer the exam at the end of the semester in the classroom setting. The course will also introduce students to Adobe Illustrator and advanced features in Photoshop and Dreamweaver. Illustrator is a professional graphic design application for vector drawing, which can be used to create graphics that scale across several mediums. In conjunction with preparing for the exam and expanding their knowledge on the Adobe CS6 suite, students will build and maintain a minimum of 1 website. This website will need to be based on an educational or non-profit environment. When students exit this course they will be prepared to apply for an entry-level job in Web Design/Development, which on average starts at a rate of \$25/hr.

*Prerequisite: B+ or higher average in Intro to Web Design and Advanced Web Design I and teacher approval.*

**YEARBOOK 11****2.50 Credits/Semester****Course #655****(Full Year, Open to Grades 9-12)**

This course is a full year college preparatory class for students interested in creating and publishing the yearbook. This course will cover yearbook ethics and legal responsibilities, photography and design, writing, editing, sales and marketing, and introduce students to Adobe Photoshop. Students will be challenged to utilize their unique strengths, as well as, to learn and hone new ones. Students will learn lifelong skills such as interpersonal communication, time management, hierarchical content organization and creative problem solving, all while producing a book and memories that will last a lifetime!

**ADVANCED YEARBOOK 21****2.50 Credits/Semester****Course #657****(Full Year, Open to Grades 10-12)**

This advanced college preparatory course will cover the same topics as Yearbook, but expand on Yearbook by allowing students to take on leadership positions such as Editor in Chief and Assistant/Managing Editors. These students oversee all elements of the book and its creation and have a solid understanding of yearbook and ethics. They lead by example and are effective coaches for their peers. Alongside the instructor, they are responsible for training new staff members. Finally, they are also responsible for clearing students who have finished their spreads. In addition to being EICs or Managing Editors, students in Advanced Yearbook will focus on preparing for the Adobe Photoshop CS6 ACA certification exam. The teacher will administer the test in the classroom setting at the end of the school year. Becoming ACA certified through Adobe is an accomplishment that can set students apart.

*Prerequisite: Successful completion of Yearbook 11 and teacher approval.*

## ELL COURSES

The English Language Learners (ELL) Program is designed for those students who are not yet proficient in English. The purpose of the program is to provide intensive English language instruction and an orientation to American culture and high school life. Students enrolled in the ELL program take English Language Learners (ELL) courses as well as additional courses from the general school curriculum and are expected to fulfill school requirements for graduation.

Placement into ELL classes is determined by written and oral assessment. ELL I courses carry English, History, Math, or Science Department credits which may be applied toward graduation requirements.

### **ELL 1 ENGLISH 12**

**2.50 Credits/Semester**

#### **Course #760**

#### **(Full Year)**

This course is designed for students who have little or no proficiency in English to support language acquisition that will help students succeed in high school. The course emphasizes survival English and essential vocabulary. Reading, writing, listening, and speaking are interwoven in classes to encourage application of all the skills that students are developing. Pair and group activities, along with frequent projects encourage communication skills. Content includes grammar and vocabulary exercises that initially emphasize the present tense, but progress to irregular past and more complicated verb constructions. Texts include material from National Geographic *Edge* Level A and Fundamentals, Azar English Grammar, NEWSOLA, novel excerpts, as well as various short reading assignments. The curriculum will follow the Massachusetts Common Core State Standards for ELA and WIDA standards for language development.

*Prerequisite: Placement by ELL Teacher.*

### **ELL 2 ENGLISH 12**

**2.50 Credits/Semester**

#### **Course #761**

#### **(Full Year)**

Designed for students with a basic working knowledge of English, this course will advance instruction in English grammar, vocabulary and usage. Students will continue to develop English reading, writing, listening, and speaking skills, with greater emphasis on reading comprehension and writing to text, as part of thematic units including Identity, Immigration, and Media. Texts include material from National Geographic *Edge* Level B, novels, and nonfiction. Students in this course simultaneously take a general education English course at their grade level. The curriculum will follow the Massachusetts Common Core State Standards for ELA and WIDA standards for language development.

*Prerequisite: Placement by ELL Teacher.*

**ELL 3 ENGLISH 12****2.50 Credits/Semester****Course #762****(Full Year)**

This course is designed for advanced English Language Learners who are transitioning to English proficiency. The course will advance instruction in English grammar, vocabulary and usage in order to polish and refine writing and also emphasize close reading and analysis of text. Students will continue to practice and develop speaking and listening skills as well. Texts may include selections from National Geographic *Edge*, novels, poems, articles and other nonfiction. Students in this course simultaneously take a general education English course at their grade level. The curriculum will follow the Massachusetts Common Core State Standards for ELA and WIDA standards for language development.

*Prerequisite: Placement by ELL Teacher.*

**ELL 1 U.S. HISTORY I 12****2.50 Credits/Semester****Course #764****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to build academic language, study skills, and knowledge of U.S. History. Through the primary text, *ACCESS: American History*, course content comprises U.S. History from First Americans through the American Revolution and Westward Expansion to the Civil War. Throughout the year, students will develop English language reading, writing, listening, and speaking skills. The course follows the historical themes, figures, events and terms of the general education U.S. History curriculum. The curriculum will follow the Massachusetts Common Core State Standards for ELA/Social Studies and WIDA standards for language development.

*Prerequisite: Placement by ELL Teacher.*

**ELL 1 U.S. HISTORY II 22****2.50 Credits/Semester****Course #765****(Full Year)**

**This course will not be offered in 2018-19. It will be offered next during the 2019-20 school year.**

This course is designed for beginner to early intermediate English Language Learners to build academic language, study skills, and knowledge of U.S. History. Through the primary text, *ACCESS: American History*, course content comprises U.S. History from the Civil War through World War I and II.

Throughout the year, students will develop English language reading, writing, listening, and speaking skills. The course follows the historical themes, figures events and terms of the general education U.S. History curriculum. The curriculum will follow the Massachusetts Common Core State Standards for ELA/Social Studies and WIDA standards for language development.

*Prerequisite: Placement by ELL Teacher.*

**ELL 1 PRE-ALGEBRA 12****2.50 Credits/Semester****Course #771****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to focus on integrated mathematical concepts. The course will emphasize mathematical reading, writing, and speaking in order to prepare students to integrate into the general education math courses. This course will provide a rigorous study of traditional pre-algebra topics from the Common Core State Standards dependent on the needs of students. Topics include simplifying mathematical expressions, order of operations, rational operations, exponent rules, percents, the coordinate plane, and solving equations.

*Prerequisite: Placement by ELL Teacher.*

**ELL 1 ALGEBRA I 12****2.50 Credits/Semester****Course #772****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to focus on integrated mathematical concepts. The course will emphasize mathematical reading, writing, and speaking in order to prepare students to integrate into the general education math courses. This course will provide a rigorous study of traditional algebra topics from the Common Core State Standards dependent on the needs of students. Topics include solving equations and inequalities, graphing and solving both linear and quadratic equations, solving systems of equations, properties of exponents, working with polynomials and factoring, and operations with rational expressions.

*Prerequisite: Placement by ELL Teacher.*

**ELL 1 INTEGRATED ALGEBRA I & GEOMETRY 12****2.50 Credits/Semester****Course #773****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to focus on integrated mathematical concepts. The course will emphasize mathematical reading, writing, and speaking in order to prepare students to integrate into the general education math courses. This course will provide a rigorous study of traditional algebra and geometry topics from the Common Core State Standards dependent on the needs of students. Algebraic topics include solving equations and inequalities, graphing and solving linear equations, solving systems of equations, radical operations, and properties of exponents. Geometry topics include the study of angles, triangles, quadrilaterals, circles, 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: ELL Pre-Algebra or Placement by ELL Teacher.*

**ELL 1 INTRO TO GEOMETRY 22****2.50 Credits/Semester****Course #774****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to focus on integrated mathematical concepts. The course will emphasize mathematical reading, writing, and speaking in order to prepare students to integrate into the general education math courses. This course will provide a rigorous study of traditional geometry topics from the Common Core State Standards dependent on the needs of students. Topics include the study of angles, triangles, quadrilaterals, and circles. Students will study right triangle trigonometry, involving the Pythagorean Theorem. Although mastery of concepts in two-dimensional geometry is the primary goal of the course, three-dimensional concepts are also introduced.

*Prerequisite: ELL Algebra I, Placement by ELL Teacher or in conjunction with Algebra I 10/11.*

**ELL 1 GEOMETRY 22****2.50 Credits/Semester****Course #775****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to focus on integrated mathematical concepts. The course will emphasize mathematical reading, writing, and speaking in order to prepare students to integrate into the general education math courses. This course will provide a rigorous study of traditional geometry topics from the Common Core State Standards dependent on the needs of students. Topics include the study of angles, circles, quadrilaterals, perpendicularity and parallelism. Students will study right triangle trigonometry, involving the Pythagorean Theorem and Special Right Triangles. Although mastery of concepts in two-dimensional geometry is the primary goal of the course, three-dimension concepts are also introduced.

*Prerequisite: ELL Algebra I, Placement by ELL Teacher or in conjunction with Algebra I 10/11.*

**ELL 1 INTRO TO ALGEBRA II 32****2.50 Credits/Semester****Course #776****(Full Year)**

This course is designed for beginner to early intermediate English Language Learners to focus on integrated mathematical concepts. The course will emphasize mathematical reading, writing, and speaking in order to prepare students to integrate into the general education math courses. This course will provide a rigorous study of traditional geometry topics from the Common Core State Standards dependent on the needs of students. Topics include properties and operations throughout the real number system, systems of equations, functions, simple radical expressions, exponents, and quadratic equations.

*Prerequisite: ELL Integrated Algebra I and Geometry, Placement by ELL Teacher or in conjunction with Geometry.*

**ELL 1 ALGEBRA II 31****2.50 Credits/Semester****Course #778****(Full Year)**

This course is designed to build on students' existing mathematical skills and help them develop more sophisticated problem-solving skills, as well as build students' mathematical vocabulary. Following the Common Core State Standards, selected topics may include properties and operations throughout the real number system, sequences and series, graphing and solving quadratic equations, systems of equations, functions, and graphing first- and second-degree equations. This course will help prepare students for standardized tests, such as the SAT and ACT.

*Prerequisite: ELL Geometry 22 or placement by ELL Math Teacher*

**ELL 1 SUPPLEMENTAL MATH 21****2.50 Credits/Semester****Course #777****(Full Year)**

This course is designed for students who have learned math through an integrated curriculum at their previous school. This course will cover selected topics in Algebra 1, Geometry, and Algebra 2 that are included in the Common Core State Standards, and that are needed to help students develop more sophisticated problem-solving skills. Students will also build their mathematical vocabulary and prepare for standardized tests, such as the SAT, ACT, and MCAS.

*Prerequisite: Taken by sophomore/junior in conjunction with Algebra 2 or Pre-Calculus, Placement by ELL Math Teacher*

**ELL 1 SCIENCE I 12****2.50 Credits/Semester****Course #768****(Full Year)**

This course is designed to differentiate the needs of beginner to early intermediate English Language Learners, focusing on integrated science concepts. The course will reinforce scientific concepts in the context of reading, writing, listening, and speaking in order to prepare students to integrate into the general education science courses. The curriculum will follow the Massachusetts Common Core State Standards dependent on the needs of students.

*Prerequisite: Placement by ELL Teacher.*

**ELL 1 SCIENCE II 12****2.50 Credits/Semester****Course #769****(Full Year)**

**This course will not be offered in 2018-19. It will be offered next during the 2019-20 school year.**

This course is designed to differentiate the needs of beginner to early intermediate English Language Learners, focusing on integrated science concepts. The course will reinforce scientific concepts in the context of reading, writing, listening, and speaking in order to prepare students to integrate into the general education science courses. The curriculum will follow the Massachusetts Common Core State Standards dependent on the needs of students.

*Prerequisite: Placement by ELL Teacher.*

## **NORTH STAR PROGRAM**

The Natick High School NorthStar Program provides educational and emotional needs for those students requiring a smaller classroom environment and individualized support. Students in the NorthStar setting take College Preparatory classes in smaller class sizes in order to make effective progress towards the ultimate goal of earning a high school diploma. The educational and emotional needs of each student determine the instructional approach and goals for the student.

The NorthStar Program provides a four-year curriculum that follows the Massachusetts Frameworks and aligns with the Natick High School curriculum; students can earn a high school diploma through this program.

### **NS PHYSICAL EDUCATION (PE)**

#### **PE 14 11**

**2.50 Credits/Semester**

#### **Course #NS019**

#### **(Full Year)**

This course is an individualized physical education program centered on the needs of the NorthStar population at Natick High School. All alternative PE courses will meet for a minimum of two 50-minute classes per week for 20 weeks. Students will receive full academic credit for physical education upon successful completion of their contract. A log briefly describing the activity must be recorded daily. The physical education teacher must receive the log one week before the semester ends.

### **NS HEALTH**

#### **HEALTH 31**

**2.50 Credits/Semester**

#### **Course #NS009a, NS009b**

#### **(Semester)**

Health education is primarily concerned with those behaviors that contribute directly to optimal health while reducing the risk of disease and substance abuse. At the conclusion of the course, students will have a better understanding of major health concepts, a sense of responsibility for one's own health, and the necessary skills to implement desirable health behaviors and attitudes. Key concepts and topics include mental and emotional health, substance abuse, nutrition and physical activity.

#### **TOPICS IN HEALTH 11**

**2.50 Credits/Semester**

#### **Course #NS010a, NS010b**

#### **(Semester)**

Health education is primarily concerned with those behaviors that contribute directly to optimal health while reducing the risk of disease and substance abuse. At the conclusion of the course, students will have a better understanding of major health concepts, a sense of responsibility for one's own health, and the necessary skills to implement desirable health behaviors and attitudes. Key concepts and topics include personal responsibilities outside of the school environment (texting and driving, money); preparation of food; sexual health and HIV/AIDS education, and social issues regarding teenagers.

## NS ENGLISH

### **ENGLISH 11**

**2.50 Credits/Semester**

**Course #NS103**

**(Full Year)**

This 9<sup>th</sup> grade English class is a standards-based curriculum and focuses on study skills, reading strategies, writing proficiency, vocabulary enhancement, and critical thinking skills. Texts will include some classical pieces, such as *The Odyssey* and *To Kill A Mockingbird*. Additional contemporary literature supplements will be used, including titles such as *My Hero*, *The Absolutely True Diary of a Part-Time Indian*, *Private Peaceful*, *Monster*, and *House of the Scorpion*. Other titles may also be selected based on student's interests and prior reading experiences. Literary interpretation will be studied using short stories, poetry and essays. The writing component will be both literature-based and standards-based. Writing will include prewriting, drafting, self-editing, and revising, as well as thesis development and logical thinking. Word studies will be implemented using words from their reading, both in and out of school. The curriculum for this class is in accordance with the Massachusetts Common Core Standards and will provide an excellent foundation for the MCAS/pending MCAS 2.0 exam.

### **ENGLISH 22**

**2.50 Credits/Semester**

**Course #NS115**

**(Full Year)**

This 10<sup>th</sup> Grade English course integrates the study of literature, vocabulary, and writing skills, in practical, personal and academic realms. Composition assignments are developed from the literature, as well as from their lives. Literature selections include classic and contemporary fiction, poetry, and non-fiction. Core literature includes *Of Mice and Men*, *The Last Mission*, *Oedipus Rex*, *Night*, and *Whirligig*, as well as thematically related nonfiction, short stories, and poetry. Skills outlined in the Common Core State Standards are built upon to provide a solid foundation of critical thinking and writing skills and preparation for the MCAS/pending MCAS 2.0 exam.

### **ENGLISH 32**

**2.50 Credits/Semester**

**Course #NS137**

**(Full Year)**

This 11<sup>th</sup> Grade English course is designed to expand upon the skills learned in previous years, as well as to remediate areas where skills are deficient. Composition, vocabulary, critical thinking, and other communications skills are addressed. Students engage in a variety of learning experiences: writing, research, oral presentations, reading of various genres from such works as *Fallen Angels*, *Rules of Survival*, *The Book Thief*, and other works. There will be opportunities to develop skills associated with group work and independent study. Students will also strive to improve competence in reading and writing by producing well-developed essays which include solidly developed theses and effective arguments.

**ENGLISH 42**  
**Course #NS159**  
**(Full Year)**

**2.50 Credits/Semester**

This 12<sup>th</sup> Grade English course explores contemporary and classic literature in a variety of genres. Students will analyze and respond to literature, discuss themes and issues, and write essays. Works studied may include but are not limited to a Shakespeare play, *Beowulf*, *The Other Wes Moore*, *All Souls*, and *I Am The Messenger*. Students will continue to develop and expand vocabulary and participate in individual and group presentations. Students will write argument essays and complete a research project.

**NS HISTORY**

**GLOBAL AWARENESS 11**  
**Course #NS208**  
**(Full Year)**

**2.50 Credits/Semester**

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 20<sup>th</sup> century history; World Wars; the Cold War Era. Using a project based learning model, 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 class is a graduation requirement.**

**CIVICS 21**  
**Course #NS230a, NS230b**  
**(Semester)**

**2.50 Credits/Semester**

Civics is a one-semester core sophomore Social Studies course required for graduation. Civics will explore the origins and evolution of American Government, analyze the structure and function of the government at the national, state, and local level, and examine how rights and liberties have been accessed by American citizens through the constitution, The course will also study the role of Ethics and Civic Responsibility within the American Democratic system.

**NOTE: This class is a graduation requirement.**

**U.S. HISTORY I 22**  
**Course #NS214**  
**(Full Year)**

**2.50 Credits/Semester**

The Revolution through Reconstruction: In this 10<sup>th</sup> Grade class, students will examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. Students will learn about the factors in and consequences of the Revolution, the writing and key ideas of the U.S. Constitution, the framework of American democracy and government, westward expansion, sectionalism and the consequences of the Civil War including Reconstruction. Supplemental readings and projects are a requirement.

**U.S. HISTORY II 32**  
**Course #NS232**

**2.50 Credits/Semester**

**(Full Year)**

In this 11<sup>th</sup> grade class, students will analyze the causes and consequences of the Industrial Revolution and America's growing role in diplomatic relations. Students will study the goals and accomplishments of the Progressive movement and the New Deal. Students will also learn about the various factors that led to America's entry into World War II as well as the consequences of World War II on American life. Finally, students will study the causes and course of the Cold War, important economic and political changes during the Cold War, including the Civil Rights movement, and recent events and trends that have shaped modern day America. The study and analysis of primary sources documents is an integral part of coursework.

**CURRENT EVENTS AND WORLD AFFAIRS 32****2.50 Credits/Semester****Course #NS271a, NS271b****(Semester)**

Current Events and World Affairs is a one semester elective course in which students study current events and contemporary themes around the globe. The course will focus on the major themes of the contemporary world including technology, environment, Middle East, and terrorism among others. We will discuss these themes in their context. We will also explore their historical significance and impact on the future. Students will be expected to keep abreast of current events through reading of print and electronic media. The course will use a variety of activities to enhance student learning.

**60'S - 90'S 21****2.50 Credits/Semester****Course #NS269b****(Semester)**

This multi-grade level class will examine Contemporary American History and society through an examination of several major events – Cold War Era, the Civil Rights Movement, Vietnam Era, Youth Culture, and Women's Movement. Students will have the opportunity to read, discuss and write on the selected topics. The course will include a variety of learning activities such as lecture, debate, and interactive projects.

**PSYCHOLOGY 42****2.50 Credits/Semester****Course #NS233a, NS233b****(Semester)**

Psychology is a heterogeneous course which will help students gain a deeper understanding of personality and behavior as well as relationships with others. Through a variety of articles, films, and class discussion, students will learn more about themselves and others. Some of the topics to be studied and discussed are scientific method, famous psychologists, child development theories, learning techniques, personalities, mental health issues, intelligence, emotions, adolescence, identity, and dreams. An objective of this course is to have all students develop a more positive self-concept. Modifications and adaptations will be addressed as needed for individual students.

*Prerequisite: Successful completion of U.S. History II. This semester course will only be offered to the senior class.*

**SOCIOLOGY 42****2.50 Credits/Semester****Course #NS247a, NS247b****(Semester)**

This heterogeneous course is designed to make students more aware of the various roles that individuals play in society. This course will investigate such important contemporary issues as family roles, gender stereotyping, racism in America and the world, crime and the criminal justice system, the education system, and recent social movements. Each topic will be researched and discussed in an open forum.

*Prerequisite: Successful completion of U.S. History II. This semester course will only be offered to the senior class.*

**CRIMINAL JUSTICE 11****2.50 Credits/Semester****Course #NS246a, NS246b****(Semester)**

This is a one semester course which exposes students to all facets of the American legal system. The course begins with a brief study of the sources of American law: common, constitutional, legislative, and administrative law. It continues with a study of the creation and enforcement of laws as well as both the federal and state level judicial systems. Class discussion along with student directed projects where students will analyze actual and hypothetical cases will be the driving component behind this course.

## NS MATHEMATICS

### **ALGEBRA I 11**

**2.50 Credits/Semester**

**Course #NS303**

**(Full Year)**

This course is designed to provide a solid foundation of Algebra following the Common Core State Standards for the college-bound student. The goals of Algebra I are to provide opportunities for students to improve their computational skills, to understand mathematical relationships using algebraic symbols and to apply the use of Algebra in the solution of problems. Students will learn and apply concepts including data analysis, probability, solving and graphing linear and quadratic equations, solving algebraic equations, solving systems of equations and inequalities, exponents, and operations with rational numbers.

### **GEOMETRY 22**

**2.50 Credits/Semester**

**Course #NS319**

**(Full Year)**

Following the Common Core State Standards, topics to be explored include inductive and deductive reasoning, properties of triangles and special right triangles, polygons, circles, area, volume, and similarity. Students will learn to apply these concepts to numerous real-world models. Students will gain exposure to the concepts of proof and construction of geometric figures using a variety of manual and technological tools.

### **ALGEBRA II 32**

**2.50 Credits/Semester**

**Course #NS325**

**(Full Year)**

In this course, students will develop their ability to think logically and refine their mathematical skills to prepare themselves for the SAT, future courses involving mathematics, and the application of these concepts in the real world. Following the Common Core State Standards, topics of discussion include real numbers and integers, polynomials and factoring, sequences and series, rational expressions, irrational numbers, simple radical expressions, exponents and quadratic equations. This course focuses on problem solving strategies and real world application of mathematics.

### **ADVANCED ALGEBRA 42**

**2.50 Credits/Semester**

**Course #NS326**

**(Full Year)**

This course explores topics from the Common Core State Standards and prepares students for mathematics that they will use in both college and life. The course covers a range of topics ranging from basic algebra to trigonometric functions.

### **BUSINESS MATH 11**

**2.50 Credits/Semester**

**Course #NS331a, NS331b**

**(Semester)**

This class explores real-life applications of mathematical problems with the use of the North Star School Store. Topics in the class that are covered are various algebraic functions, single and multiple variable equations, and linear problems to name a few. Students are also required to care, shop, and manage the school store.

## NS SCIENCE

### **PHYSICS L 11**

**2.50 Credits/Semester**

**Course #NS405**

**(Full Year)**

Students are introduced to concepts in everyday physics that are seen in 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 theoretical models that explore the themes of energy, motion, and electromagnetism. Educational instruction will include laboratory investigation, projects, problem solving investigations, and an overview of solving mathematical equations. Students will be prepared to demonstrate proficiency on the Introductory Physics MCAS test.

### **PHYSICS L 22**

**2.50 Credits/Semester**

**Course #NS408**

This course is for students who have not met proficiency on the Physics MCAS test. Students are reintroduced to concepts in physics that are seen in everyday life. A significant portion of the course will stress the further development of conceptual understandings of physical laws and relationships. Students investigate physical phenomena and theoretical models that explore the themes of energy, motion, and electromagnetism. Educational instruction will include laboratory investigation, projects, problem solving investigations, and an overview of solving mathematical equations.

### **CHEMISTRY L 22**

**2.50 Credits/Semester**

**Course #NS423**

**(Full Year)**

In this course students will study matter and its interactions. Topics covered will include the structure of matter, states of matter, property changes, atomic structure, chemical bonds, chemical reactions, carbon chemistry, forensic science, consumer chemistry, and acids/bases. Educational instruction will include laboratory investigation, projects, and problem solving investigations.

### **BIOLOGY L 32**

**2.50 Credits/Semester**

**Course #NS417**

**(Full Year)**

The subject of Biology aims to describe and understand the living organisms in our surroundings as well as ourselves. Topics studied include cellular biology, biochemistry, biotechnology, genetics, evolution, and anatomy. Educational instruction will include laboratory investigation, projects, and problem solving investigations.

### **ENVIRONMENTAL SCIENCE L 42**

**2.50 Credits/Semester**

**Course #NS428**

**(Full Year)**

This course will focus on the study of the natural environment and the environment problems the world faces. Topics of study will include an introduction to the ecosystem, study of our local ecosystem, extinction of species, human population dynamics, climate change, environmental health, energy resources, study of the oceans, and pest control. The course will evaluate natural environmental processes as well as human impacts to these processes.

**ANATOMY & PHYSIOLOGY L 42****2.50 Credits/Semester****Course #NS444a, NS444b**

Anatomy & Physiology is the study of the systems of the human body (the structure of and how they work). This course will study the digestive, circulatory, muscular, skeletal, respiratory, excretory, and nervous systems. Time will also be spent studying the role of blood in the human body, viruses, and bacteria. Educational instruction will include laboratory investigation, projects, and problem solving investigations.

**NS SPANISH****SPANISH 11****2.50 Credits/Semester****Course #NS525****(Full Year)**

In this course, students are introduced to the five C's of foreign language learning: communication, culture, connections, comparisons and communities at a modified pace with more support. 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.

**SPANISH 21****2.50 Credits/Semester****Course #NS529****(Full Year)**

This course is a continuation of Spanish 11 and continues to develop listening, speaking, reading and writing skills. Students will increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of the culture. At this stage, students will practice the skill of speaking through class discussions and presentations. Moreover, students will begin to write compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

**SPANISH 22****2.50 Credits/Semester****Course #NS531****(Full Year)**

Spanish 22 is offered in conjunction with Spanish 21. Students will engage in all aspects of the Spanish 21 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

*Prerequisite: Successful completion of Grade 8 Spanish. Final grade of C- or better in Spanish 12 or Final grade of D or better in Spanish 11.*

**SPANISH 31**  
**Course #NS533**  
**(Full Year)**

**2.50 Credits/Semester**

Spanish 31 is a continuation of Spanish 21 and continues to develop listening, speaking, reading and writing skills. Students will continue to increase their vocabulary, learn new grammatical concepts, and develop a deeper understanding of Hispanic cultures and communities. Students will practice and further develop speaking skills through class discussions, partner and group speaking activities and presentations. Moreover, students will continue to write short compositions on a variety of topics. The language lab and other technology continue to serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

*Prerequisite: Final grade of C- or better in Spanish 21.*

**SPANISH 32**  
**Course #NS535**  
**(Full Year)**

**2.50 Credits/Semester**

Spanish 32 is offered in conjunction with Spanish 31. Students will engage in all aspects of the Spanish 31 course with more teacher support. The language lab and other technology serve as useful, creative and motivating tools to build language proficiency and cultural understanding.

*Prerequisite: Final grade of C- or better in Spanish 22.*

**NS ELECTIVES**

**See other sections for possible elections**

**ART 14**  
**Course #NS601a, NS601b**  
**(Semester)**

**2.50 Credits/Semester**

This is a foundation course designed to introduce students to the Basic Elements 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.

**ART 24**  
**Course #NS603a, NS603b**  
**(Semester)**

**2.50 Credits/Semester**

Students will build on their experience in Art I to create pieces for a portfolio through self-expression and the exploration of various media in a series of guided and open-ended assignments. Students will work on assignments that are tailored to their interest and strengths.

**ART 34****2.50 Credits/Semester****Course #NS605a, NS605b****(Semester)**

This course builds upon the skills and concepts covered in Art I and II and is designed for students to continue exploration and artistic development. Projects and exercises are designed to encourage critical thinking skills, expand use of mediums, as well as promote mastery of skills in the visual arts.

**ART 44****2.50 Credits/Semester****Course #NS607a, NS607b****(Semester)**

A variety of projects and exercises allow students to further develop technique, improve communication, and explore the process of making art. Students should be committed to the entire product making process and are generating portfolio level artwork. Projects and exercises encourage students to incorporate meaningful ideas into their artwork as they continue to investigate traditional and contemporary concepts and techniques. Students create a body of work that is visually dynamic and expressive.

**DIGITAL ARTS 14****2.50 Credits/Semester****Course #NS630b**

This is a college preparatory class for students interested in art and design that focuses on digital media. Students learn basic concepts essential to visual and digital art such as line, shape, form, color, value, space, and texture. They use GIMP, a digital drawing application, to create original art including simple animations, GIFs, web banners, digital self-portraits, and optical illusions. Students will use digital art techniques to accomplish projects.

**MUSIC HISTORY 11****2.50 Credits/Semester****Course #NS880a, NS880b****(Semester)**

This is a one semester course that looks into the recent history of music. The course begins with a brief history of music spanning from the 1920's through the 1940's. After that, each decade from the 1950's to the present are examined and discussed. This is a student project/presentation based course.

**HISTORY OF SPORTS 11****2.50 Credits/Semester****Course #NS286a, NS286b****(Semester)**

This course takes a look at multiple sports and the impact on the society we live in today. Several sports, such as football, baseball, basketball, hockey, Mixed Martial Arts, Boxing, and the Olympics are covered. To go along with the sports, we will also look into the training, risks and safety that accompany each sport.

**SCIENCE AT THE MOVIES 21****2.50 Credits/Semester****Course #NS453a, NS453b****(Semester)**

Students will investigate science concepts used in movies. Science concepts covered include space and time travel, human body systems, health and pandemics, technology/AI and other topics of interest. Students will use the knowledge gained from the films to work on projects to find solutions to real-world problems.

**CURRENT ISSUES IN SCIENCE 11****2.50 Credits/Semester****Course #NS446a, NS446b****(Semester)**

This is a one semester elective course in which we study current events and contemporary themes in a variety of science disciplines around the globe. The course will focus on the major themes of the contemporary world including technology, environment, economics, health, and others that become prominent as the semester progresses. We will discuss these events and themes in their context but also discuss their significance to specific historical events and periods as well as analyzing their impact on our future. This class will provide varied activities to enhance our skills as scientifically literate citizens. Students will be expected to keep abreast of current events and topics through consistent reading of print and electronic media.

**SCIENCE FICTION 11****2.50 Credits/Semester****Course #NS165a, NS165b****(Semester)**

Beyond Earth - Do you like the possibility of studying time travel, space travel or alien encounters? How does science fiction demonstrate controversial ideas of the present? Science fiction can show revelations into human conditions explored by traditional authors. While science fiction is often associated with a distant future, it can actually tell us more about our current situation and point us towards possible solutions. This advanced college preparatory course begins with early science fiction by Nathaniel Hawthorne, Sir Arthur Conan Doyle and Edward Bellamy before launching into the works of more standard SF writers of the 20th century: H.G. Wells, Isaac Asimov, Ray Bradbury, and Philip K. Dick. In addition to the literature of SF, we will explore the films that have made an impact since the first adaptations of Jules Verne and Metropolis astounded audiences at the beginning of the last century. There will be opportunities to compose short stories and screenplays. Students will independently read short stories and novels by an author of their choosing and will relate it to themes of the course, discovering how the concerns of the present day influence the literature of tomorrow.

**CREATIVE WRITING 11****2.50 Credits/Semester****Course #NS172a, NS172b****(Semester)**

Conducted in a traditional face-to-face format, this section of Creative Writing is designed to help students learn valuable techniques to cultivate their own artistic voices. The coursework includes models, prompts, and activities that foster creativity and provide structure so that students can produce material based on their interests. Students compile a portfolio of their work and participate in peer workshops to revise and publish their work on a regular basis. In addition to providing the time and space to write, the course provides opportunities to polish basic English skills, sharpen awareness of nuance, and learn manipulation of language for maximum effect. Students will write both independently and collaboratively with peers. Writing assignments may include journal writing, character sketches, interior monologue, stream of consciousness, blogging, dramatic monologue, dramatic dialogue, short stories, screenplay writing and adaptation, poetry, children's literature and science fiction.

**PULP FICTION 11****2.50 Credits/Semester****Course #NS166a, NS166b****(Semester)**

Sometimes described as detective fiction or crime fiction, the category has become a staple of American writing. The hard-boiled detective, clear and forceful dialogue, and a liberal use of slang are all recognizable elements of this fast-paced genre that emerged in the 1920's. Dashiell Hammett's prose style influenced Hemingway, and Raymond Chandler was responsible for much of the snappy dialogue that made Humphrey Bogart famous and led to the success of film noir. In this advanced college preparatory course we will examine some of the major pulp writers, including Hammett, James M. Cain, Raymond Chandler, and C.S. Montayne, as well as the influence of this style in films from the forties through the present day. Starting with the traditional who-dunnit of Arthur Conan Doyle's Sherlock Holmes and Agatha Christie's Miss Marple, students will see how the modern style and hero derived from a more formal mystery approach. The class will work on character sketches, hard-boiled vignettes, and short screenplays. Students will keep track of characters with a casebook and study relevant historical background, including Prohibition and the slang of the 1930's and 1940's. Students will also see how the genre has influenced other genres, including the science fiction of Jonathan Lethem and the comedy of Woody Allen.

**TOPICS IN MATH 32****2.50 Credits/Semester****Course #NS335****(Full Year)**

This course takes a look into multiple areas in math including Pre-Calculus, Statistics, Probability, and real-life functions. It is an independent class that requires a great deal of self-teaching with less teacher instruction.



2. Read the Community Service Information on the Natick High School website:

<http://naticknhs.ss11.sharpschool.com/cms/One.aspx?portalId=121475&pageId=575543>

3. Upon completing your community service experience, the Site Liaison (supervisor) will sign off on the number of hours you have completed during the corresponding dates.

4. Bring the form to the Guidance Department for your Guidance Counselor's signature and put the **completed form** into the community service form box. Do not wait until all hours have been completed to submit these forms. (ONCE YOU HAVE COMPLETED 30 HOURS – PLEASE CHECK THE BOX)

5. Some students will get 30 hours from one project, while others will volunteer at several organizations until at least 30 hours are met. Many students earn considerably more than the 30 hour requirement.

**PLEASE KEEP A COPY FOR YOUR RECORDS**

# **NATICK HIGH SCHOOL WORK STUDY CONTRACT**

The Work Study Program provides students an opportunity to meet their academic requirements for graduation while gaining valuable work experience. Through this business experience, students will build the knowledge, skills and self-confidence to be successful in higher education, in the workplace and in life. Students participating in this program will attend their academic classes daily and be granted a late arrival/early dismissal to participate in employment during school hours.

In order to be a part of and remain in the program the student must read and agree to the following regulations:

- Students must sign the NHS Work Study Contract prior to participating in this program.
- Students must have employment prior to starting the program.
- Students must work 12 – 15 hours per week.
- Students will submit timesheets weekly (must be signed by supervisor).
- Work Study hours will replace 3 scheduled classes at either the beginning or the end of the day (flexible based on student and employer preference). Students will be enrolled in their 4 core courses throughout the entire year, which they will need to attend on a daily basis, according to their schedule.
- Students will receive 3.75 credits for each term upon completion, with a total of 15 credits granted at the end of the school year.
- The student must maintain passing grades in all academic subjects.
- The student will be responsible for arranging transportation to and from the job site.
- If absent from school, the student will not attend work on the same day. The student will be removed from the Work Study Program if they attend work and not school.
- The student will attend school each day scheduled for classes. Student will lose credit after 7 unexcused absences. In the event of excessive absences, student may be removed from the Work Study Program.
- If assigned a detention, the student will serve it within 3 days of the date assigned.
- The student must inform the Career Counselor about any thoughts of quitting their job prior to giving notice to the employer.
- The student must inform the Career Counselor if they are terminated from their job.
- If the student quits or is terminated from employment they must return to the school as a full-time student at the start of the next term.
- The student will maintain a good attitude and be cooperative while in school and on the job.

Employers of Natick High School students may not discriminate on the basis of race, creed, color, sex, gender identity, religion, nationality, sexual orientation, physical and intellectual differences, immigration status, or homeless status.

# NATICK HIGH SCHOOL WORK STUDY CONTRACT

I have read and agree to comply with all of the regulations within the Work Study Program:

Student Name: (Printed) \_\_\_\_\_ Date: \_\_\_\_\_

Student Name: (Signature) \_\_\_\_\_

Parent/Guardian Name: (Printed) \_\_\_\_\_ Date: \_\_\_\_\_

Parent/Guardian Name: (Signature) \_\_\_\_\_

Guidance Counselor: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_

## **Employer Information**

Name of Business: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Supervisor Name: \_\_\_\_\_

Title: \_\_\_\_\_

Email Address: \_\_\_\_\_

Student Job Title: \_\_\_\_\_

Pay Rate Per Hour: \_\_\_\_\_

Proposed Work Schedule: \_\_\_\_\_

Job Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Employers of Natick High School students may not discriminate on the basis of race, creed, color, sex, gender identity, religion, nationality, sexual orientation, physical and intellectual differences, immigration status, or

homeless status.

NATICK HIGH SCHOOL  
SENIOR INTERNSHIP PROGRAM

The Senior Internship Program is offered to students during the last quarter of senior year. The goal of the internship program is to promote on-the-job training while developing the necessary skills needed in the workplace. All students will be graded on a Pass/Fail system and will earn 3.0 credits toward graduation along with a line item on your final transcript. The internship experience is intended to take the place of daily academic work on a full-time basis for the last term of the senior year (with some exceptions). The requirements are to complete 100 hours onsite as well as an academic portfolio and a project. Additionally, students present their findings at the Annual Internship Showcase event held in May.

Students must demonstrate:

- Maturity and responsibility
- Good academic standing
- No major disciplinary issues
- A good attendance record
- Able to represent themselves/school in the community

The Senior Internship Program allows students to:

- Identify and explore career fields before they commit to years of preparation
- Receive academic credit for completed internship experiences
- Discover the relevance of their academic studies to work
- Learn the standards and expectations of the working world
- Evaluate their employment skills and needs
- Test their decision-making abilities in workplace settings

For additional requirements and information, please go to:

<http://nhs.natickps.org/cms/one.aspx?pageId=575518>

**TEC INTERNSHIP PROGRAM**

TEC Internship

2.50 credits

The Education Cooperative (TEC) Internship Program is a 60-hour career exploration program supporting junior and senior high school students. TEC internships enable students to: clarify career goals and future academics; understand career paths and what having a job is really like; strengthen a college application and/or resume; gain confidence and life skills; and make potential contacts for a future job search.

<http://www.tec-coop.org/student-programs/internships/student-internships>

## ONLINE LEARNING OPPORTUNITIES

Online learning offers flexible scheduling with 24/7 access, and an expanded range of courses beyond the typical high school curriculum. Students can recover credit, take classes for original credit, and prepare for the MCAS, SAT and ACT tests. Students are expected to be self-motivated, to work independently and to communicate with the teacher as needed.

Students may take courses offered through TEC Online Academy and Connections Learning.

<http://www.tec-coop.org/tec-online-academy/tec-online-academy-course-information>

These courses are offered free of cost during the school year.

Students may also take courses through an accredited on-line high school or college program but must pay for them directly. Some examples include:

- Johns Hopkins University Center for Talented Youth, [www.cty.jhu.edu/](http://www.cty.jhu.edu/).
- Indiana University, <http://iuhighschool.iu.edu>, 1-800-334-1011
- Brigham Young University, <https://byuonline.byu.edu/home>, 1-800-422-4000
- University of Nebraska – Lincoln, [www.highschool.nebraska.edu](http://www.highschool.nebraska.edu) , 866-700-4747
- Virtual High School, [www.vhslearning.org](http://www.vhslearning.org).

**Important requirements to make note of:**

- Students may not take a course online that is offered by Natick High School unless the class does not fit into the student’s schedule.
- Only grades in courses taken through TEC Online Academy and Connections Learning will count toward a student’s GPA.
- **Students may only take 7 courses per semester, including online courses.**
- Students will be added to TEC Connections, an Online Learning Study Hall where they can access assistance if needed.
- Registration forms are available through the guidance office or from Mr. Milch in Room 329.

### Extensions

Students should be mindful that Natick High School partners with external providers. TEC Online Academy and TEC Connections to deliver online courses. As a result the deadlines associated with each program are **firm and non-negotiable**. Students are **unable** to request or obtain an “incomplete” grade (or an additional 2-weeks) at the end of a term or semester, to finish coursework. Students will receive the final grade at the time of the established semester end date.

## TEC ONLINE ACADEMY

The TEC Online Academy is an innovative online learning environment designed to provide high school students the opportunity to develop the knowledge and skills needed to utilize technology to learn, communicate, access information, collaborate and compete for advancement whether they pursue a career or attend college. Courses are taught by highly qualified instructors. **Students are required to complete an application. They are available in the Guidance Office or you can download from this link: [NHS TEC CONNECTIONS LEARNING \(TECCL\) / TEC ONLINE ACADEMY \(TOA\) COURSE REGISTRATION](#)**

For more information please visit <http://www.tec-coop.org/education-cooperative>

**2018-2019 course descriptions will be added when available.**