



**Waldorf**  
**HIGH SCHOOL**  
of Massachusetts Bay

# **Course Catalog**

**2018-2019**

**Waldorf High School of Massachusetts Bay**  
160 Lexington Street, Belmont, MA 02478  
617-489-6600 | [WaldorfHighSchool.org](http://WaldorfHighSchool.org)



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## **WALDORF HIGH SCHOOL PROFILE**

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Waldorf High School of Massachusetts Bay is a college preparatory school where teenagers discover **their strengths**, recognize **their responsibility to others**, and envision **the full possibility of their lives**.

### **A Waldorf Education prepares teenagers for the future:**

- to think creatively and become problem solvers;
- to be knowledgeable about the world, human history and culture;
- to interact harmoniously with and respectfully toward others;
- to be in possession of practical and artistic abilities;
- to feel reverence for and communion with the natural world;
- to act with initiative and freedom in the face of economic and political pressures;
- to bring mastery over one's self and one's future.

# **WALDORF HIGH SCHOOL MISSION STATEMENT**

We are an independent, self-administered Waldorf high school  
in the Massachusetts Bay area.

## **OUR MISSION**

is to provide a Waldorf secondary education both to students who are continuing their Waldorf education and to students finding Waldorf education for the first time. Our education supports the intellectual, social, physical, and spiritual development of our students.

## **OUR WORK**

is based on the educational contributions of Rudolf Steiner and his insights into human development and social forms.

## **OUR GOAL**

*is to awaken and foster in our students:*

- clear, informed, and heartfelt thinking;
- creativity and inquiry;
- compassion for and interest in the world and all humanity;
- a well-founded belief in their capacities and the will to use them.

## **DIVERSITY AND NON-DISCRIMINATION STATEMENT**

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Waldorf High School of Massachusetts Bay is accredited by the New England Association of Schools and Colleges and the Association of Waldorf Schools of North America and operates in a non-discriminatory way, without regard to race, color, gender, sexual orientation, religion, national or ethnic origin.

Admission is open to all qualified students based upon review of academic transcripts, personal interviews and faculty recommendations.

Waldorf High School is authorized under Federal law to enroll nonimmigrant students.

## **CURRICULUM**

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Waldorf High School's integrated curriculum is challenging and rigorous, balancing the arts, sciences and humanities. The academic focal point is the main lesson block class, a 95-minute concentrated lesson at the beginning of each school day. Specialist teachers lead the students through a rich array of main lesson block subjects in the various academic disciplines for three to four weeks each. Research papers, artistic projects and/or main lesson block books, which are a record and a culmination of these main lesson blocks, are created by the students. Main lesson block books may include references, research, essays, creative writing, scientific observations, charts, maps and artistic work. There is an increasing level of sophistication of work and its presentation in the main lesson block book through the high school years.

All students participate in daily skill classes, covering additional English and mathematics study, American studies, global studies, a foreign language, laboratory science (Grade 11), music, physical education/movement, fine arts, practical arts and electives. All students fulfill community service requirements. Various student committees and clubs meet regularly, and team sports are offered after school.

## **CURRICULUM OVERVIEW**

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### **GRADE 9:**

**Block Classes:** Physics 1: Thermal Physics, Chemistry I: Geochemistry, Biology I: Human Anatomy & Physiology, Counting and Probability, Comedy and Tragedy, The Novel - Moby Dick, Native American History, Revolutions, History through Art.

**Daily Classes:** English 9, American Studies, Math 9 (General and Extended Path), Spanish 9, Chorus, Fine Arts 9, Electives (3), Movement/Physical Education

### **GRADE 10:**

**Block Classes:** Physics II: Mechanics, Earth Science I: Navigation, Chemistry II: Acids and Bases, Biology II: Embryology and Cell Biology, Information Technology, Art of Poetry/Development of Language, Drama, Ancient History, Ancient Greece.

**Daily Classes:** English 10, Global Studies, Math 10 (General and Extended Path), Spanish 10, Chorus, Fine Arts 10, Electives (3), Movement/Physical Education

### **GRADE 11:**

**Block Classes:** Physics III: Electricity & Magnetism, Chemistry III: The Nature of Matter, Earth Science II: Botany, Hamlet, Parzival, Medieval History, Internship, Renaissance-Reformation-Enlightenment, Heroes and Monsters.

**Daily Classes:** English/American Studies 11, Math 11 (General and Extended Path), Science Lab, Spanish 11, Chorus, Fine Arts 11, Electives (3), Movement/Physical Education

## **GRADE 12:**

**Block Classes:** Physics IV: Optics, Chemistry IV: Biochemistry, Earth Science III: Zoology and Evolution, Drama, Transcendentalists, Modern History, Ideas & Consciousness, Multidisciplinary, Practical Internship, Senior Seminar

**Daily Classes:** English 12, Math 12 (General and Extended Path), Spanish 12, Chorus, Fine Arts 12, Electives (3), Movement/Physical Education

# GRADING AND REPORTS

## WRITTEN REPORTS

Each student receives individualized written narrative reports each semester for Main Lesson Block classes, daily courses, the arts, and physical education. Evaluations are based on a pass/no credit system. Students also receive letter grades for the purposes of transfers and college applications. Grades are available upon request to the student's advisor. As well, all students receive mid-semester updates in October and March.

## PASS/NO CREDIT SYSTEM

**Pass:** satisfactory to excellent, complete work and comprehension of subject matter.

**Pass with Recognition:** exceptional work in one, or any combination, of the following areas:

**Scholastic:** exceptional academic work and comprehension.

**Artistic:** exceptional and/or extra work towards presentation.

**Dedication:** exceptional engagement in and effort made in the course.

**Pass with Concern:** reasons for concern will be articulated in the written report.

**Incomplete:** given at the end of a marking period only in exceptional circumstances, such as a confirmed, extended illness. The work due and a completion date will be articulated in the written report.

**No Credit:** incomplete work or substitute courses not completed by deadline.

## LETTER GRADES

Students receive letter grades for the purposes of transfers and college applications. Grades are available upon request to the student's advisor.

Key to Grades		Percentages	
A+ or A	Excellent	100 – 97	A+
A- or B+	Very Good	96 – 94	A
		93 – 90	A-
B or B-	Good	89 – 87	B+
		86 – 84	B
		83 – 80	B-
C+	Satisfactory	79 – 77	C+
C or C-	Fair	76 – 74	C
		73 – 70	C-
D	Unsatisfactory	69 – 66	D
F	Fail	65 – 0	F

## MID-MAIN LESSON BLOCK & MID-SEMESTER REPORTS

**Mid-Main Lesson Block Reports** are mailed only to students who need to give some extra attention to their Main Lesson Block work in order to pass the course satisfactorily. The student's status, and the work required to pass, are determined by the course teacher and shared with the student's advisor. The report does not necessarily mean that a student is in danger of failing but may be written to alert all of us that there are areas of work that need attention.

If a student is failing, it will state so in the report. Specific work that is needed to pass the Main Lesson Block and a due date for that work will be noted on the form.

**Mid-semester Reports** are mailed in November and March of each of the two semesters for the daily courses, physical education and community service hours.

# DAILY SCHEDULE

	Monday	Tuesday	Wednesday	Thursday	Friday
2018-2019			MAIN LESSON		
8:50-10:25			Break		
10:25 - 10:35					
<b>Period 1</b>					
9	Math Oliver/6-Fries/8	Math Oliver/6-Fries/8	Fine Arts Bettencourt/Rm 8	Math Oliver/6-Fries/8	Math Oliver/6-Fries/8
10	Math Oliver/6-Fries/8	Math Oliver/6-Fries/8	Fine Arts Bettencourt/Rm 8	Math Oliver/6-Fries/8	Math Oliver/6-Fries/8
11	English/Civics Nicholl/Rm 1	English/Civics Nicholl/Rm 1	Science Sw anson-Oliver/Rm 6	English/Civics Nicholl/Rm 1	English/Civics Nicholl/Rm 1
12	English Delaney/Rm 5	English Delaney/Rm 5	English Delaney/Rm 5	English Delaney/Rm 5	English Delaney/Rm 5
<b>Period 2</b>					
9	Spanish/St.Sk. Romeu/4-Secor/3	Spanish/St.Sk. Romeu/4-Secor/3	English O'Donnell/Rm 7	Spanish/St.Sk. Romeu/4-Secor/3	Spanish/St.Sk. Romeu/4-Secor/3
10	Spanish/St.Sk. Romeu/4-Secor/3	Spanish/St.Sk. Romeu/4-Secor/3	Global Studies Nicholl/Rm 1	Spanish/St.Sk. Romeu/4-Secor/3	Spanish/St.Sk. Romeu/4-Secor/3
11	Math Oliver/6-Sw anson/8-Fries/Math	Math Oliver/6-Sw anson/8-Fries/	Science Sw anson-Oliver/Rm 6	Math Oliver/6-Sw anson/8-Fries/Math	Math Oliver/6-Sw anson/8-Fries/
12	Math Oliver/6-Sw anson/8-Fries/Math	Math Oliver/6-Sw anson/8-Fries/	Fine Arts Bettencourt/Rm 8	Math Oliver/6-Sw anson/8-Fries/Math	Math Oliver/6-Sw anson/8-Fries/
12:00-12:50			LUNCH		
12:50-1:00			School Cleanup		Homeroom
1:00-1:10			All-school Movement		(all students 12:50-1:10)
<b>Period 3</b>					
9	American Studies Delaney/Rm 5	American Studies Delaney/Rm 5	American Studies Delaney/Rm 5	American Studies Delaney/Rm 5	American Studies Delaney/Rm 5
10	English O'Donnell/Rm 7	English O'Donnell/Rm 7	English O'Donnell/Rm 7	English O'Donnell/Rm 7	English O'Donnell/Rm 7
11	Science Sw anson-Oliver/Rm 6	Science Sw anson-Oliver/Rm 6	Fine Arts Bettencourt/Rm 8	Science Sw anson-Oliver/Rm 6	Science Sw anson-Oliver/Rm 6
12	Spanish Romeu/Rm 4	Spanish Romeu/Rm 4	Seminar Secor/Rm 3	Spanish Romeu/Rm 4	Spanish Romeu/Rm 4
<b>Period 4</b>					
9	English O'Donnell/Rm 7	English O'Donnell/Rm 7	English O'Donnell/Rm 7	English O'Donnell/Rm 7	English O'Donnell/Rm 7
10	Global Studies Nicholl/Rm 1	Global Studies Nicholl/Rm 1	Global Studies Nicholl/Rm 1	Global Studies Nicholl/Rm 1	Global Studies Nicholl/Rm 1
11	Spanish Romeu/Rm 4	Spanish Romeu/Rm 4	Spanish Romeu/Rm 4	Spanish Romeu/Rm 4	Spanish Romeu/Rm 4
12	Seminar Secor/Rm 5	Seminar Secor/Rm 5	Spanish Romeu/Rm 4	Homeroom Delaney/Rm 5	Homeroom Delaney/Rm 5
<b>Period 5</b>					
2:45-3:15	Chorus (all students)	Chorus (all students)	Wednesday Electives (all students 2:00-3:15)	Chorus (all students)	Friday Electives (all students 1:15-3:15)

# MAIN LESSON BLOCK SCHEDULE

2018-2019	days	Grade 9	Grade 10	Grade 11	Grade 12
Sept 5-7	3	Native American History Ms. Delaney Room 5	Ancient History  Mr. Nicholl Room 1	Hamlet  Mr. O'Donnell Room 7	Zoology and Evolution  Mr. Oliver Room 6
Sept 10-14	5				
17-21	tri				
24-28	5				
Oct 1-5	5	Anatomy and Physiology Mr. Booth Room 6	Physics: Mechanics  Ms. Swanson Room 8	Medieval History  Ms. Delaney Room 5	Transcendentalists   Mr. Nicholl Room 1
9-12	4				
15-19	5				
22-26	5				
29-Nov 2	5	Comedy and Tragedy Mr. O'Donnell Room 7	Chemistry: Acids and Bases Mr. Oliver Room 6	Electricity and Magnetism Ms. Swanson Room 8	Multidisciplinary  Mr. Booth Room 4
5-9	5				
13-16	4				
19, 20	2				
26-30	5	Counting and Probability Mr. Oliver Room 6	Ancient Greece  Mr. Nicholl Room 1	Heroes and Monsters Mr. O'Donnell Room 7	Modern History   Ms. Delaney Room 5
Dec 3-7	5				
10-14	5				
Dec 17 - Jan 2 VACATION					
Jan 3,4	2	History Through Art  Ms. Delaney Room 5	Ancient Greece Embryology and Cell Biology Mr. Booth Room 7	Heroes/Monsters Mr. O'Donnell Room 7 Chemistry: Nature of Matter Mr. Oliver Room 6	Physics: Optics  Ms. Swanson Room 8 Internships Ms. Elliot Room 4
7-11	5				
14-18	5				
23-25	3				
28-1	5				
Feb 4-8	5				
11-15	5	Revolutions Mr. Nicholl Room 1	Play Mr. O'Donnell Rm 7/Aud	Renaissance,	
Feb 18-22 VACATION					
25-Mar 1	5	Revolutions Geochemistry Mr. Oliver Room 6	Play Mr. O'Donnell Room 7/Auditorium	Reformation and Enlightenment Ms. Delaney Room 5	Biochemistry  Mr. Booth Room 8
4-8	5				
11-15	5				
18-21	4				
Immersives Week					
25-29	5	Geochemistry Mr. Oliver Room 6	Art of Poetry Mr. Pischner Room 4	Parzival Mr. Nicholl Room 1	Ideas and Consciousness Ms. Delaney Room 5
Apr 1-5	5				
8-12	5				
April 15-18 VACATION					
23-26	5	Thermal Physics Ms. Swanson Room 8	Information Technology Mr. Oliver Room 6	Internships Ms. Secor Room 7	I&C Ms. Delaney Rm 5 Play   Auditorium
29-May 3	5				
6-10	5				
13-17	5				
20-24	5	The Novel Mr. O'Donnell Room 7	Navigation Ms. Swanson Room 8	Botany  Mr. Nicholl Room 1	
28-31	4				
June 3-7	5				

## **GUIDANCE & POST-SECONDARY PLANNING**

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The goal of the Waldorf High School guidance program is to support students in a variety of ways so they may have a successful school experience. Our central aim is to build intellectual and problem-solving capacities in teenagers through discussion and dialogue. WHS students thrive in this environment because they are supported, known and valued.

**Academic Support Services** - The guidance counselor oversees the Academic Support Program which provides tutoring support to students in a small group setting. Skills in: math, reading, writing and organization are typical topics that are addressed based on each qualifying students' individual needs.

**Coordination** - The guidance counselor coordinates college guidance services at WHS. Some examples of these services include standardized testing (i.e. PSAT), record maintenance and special parent/student events such as: Future Planning Night and Financial Aid Night.

**Counseling** – In collaboration with the faculty advisors, the guidance counselor offers academic, social/personal, and vocational/career support. These areas are addressed through individual conversations, small group counseling, and large group guidance.

**Advisors** – Each student works with a faculty advisor over the course of his/her attendance at WHS. The advisor, a member of the high school faculty, is responsible for holding the overview of a student's general well-being and academic progress, and for reviewing and signing all reports for that student. Students are encouraged to go to their advisors with academic, social or personal questions, problems or ideas, for help, support or referral for help.

**College/Post-Secondary Planning** - Each student receives individual guidance in the post-secondary planning process. The student is guided in a way that deepens and clarifies his or her sense of identity, interests and what he/she wishes to do after high school. Support is provided for the college application process as well as other venues and gap-year programs. WHS uses *Naviance Family Connection* for all college admissions preparations.

# COURSE DESCRIPTIONS

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## ENGLISH

### **Comedy and Tragedy, 9**

*Main Lesson Block Class  
O'Donnell*

Why do humans, across cultures and time, create and perform stories? In this main lesson block, the class studies the ancient origins of dramatic performance and explores why the most common forms developed were polar opposites, reverse-mirror images: comedy and tragedy. The class reads together a classic tragedy, a Shakespearean comedy, and a modern drama. Throughout the course, the students do artistic work; they create a mask, building up its features, slowly discovering the character that is emerging.

### **The Novel, 9**

*Main Lesson Block Class  
O'Donnell*

In this block the class explores the origin of the novel as a literary form and its role in America's literary history. Students read much of the American classic novel, *Moby Dick*, by Herman Melville, and study his life story, his era, the practice and culture of hunting whales, and how all of these influenced his creation of *Moby Dick*. The block explores such questions as: why is Melville's work considered such a classic, and why has it captured the imaginations of readers for over a century? Why are whales and the practice of whaling, where humans encounter the largest creatures on earth, so alluring to Melville, his characters, and to us? The block includes a curriculum trip to Nantucket, the site of the beginning of Melville's tale and a center of American and global whaling.

### **English Course, 9**

*O'Donnell*

In English 9, one of our central questions will be: what is language and how do we use it? We will explore spoken language as a physical experience: how we shape, hold, and release breathe to create sounds that have meaning. What about unspoken language? When do we have to speak and when are we made to be silent? Is spoken language different from written language? Is language experienced live different from language received through the media? We will also look at written language: letters, texts, and stories.

Another central topic of our study will be stories and storytelling. Why do humans tell stories? Why are there fiction and non-fiction stories? Which is more "real"? What role do stories play in how we explain the world and our lives to ourselves. The class will read, write, listen to, and perform short

stories. In the second semester, we will study modern drama, continuing the exploration from the Comedy and Tragedy main lesson block.

Skill-building is ongoing throughout the course, as students work on vocabulary building, with a focus on words with Greek and Latin roots, and language structure (grammar), particularly noun, pronouns, subject, and object. We practice discussion skills, particularly the role of active listening in meaningful conversation. In writing and composition, the students work on constructing strong and precise sentences, fashioning a clear narrative, and building fluency, through journaling/reflective writing, creative writing, and formal composition.

### **Drama Production, 10**

*Main Lesson Block Class  
O'Donnell*

The class reads, studies, and performs a full-length dramatic work. Throughout the block, the students practice training and character development exercises to help their performance, memorize their lines, take direction, and rehearse their parts. Students keep a journal with near-daily entries and self-assessments. In addition, students work on technical aspects of the production, serving on one of the following crews: properties, costumes, set/scenery, and advertising. The culmination of the block is a sharing of our work with the school community.

### **Art of Poetry, 10**

*Main Lesson Block Class*

This exciting three-week main lesson explores intersections between poetry and other art forms such as illustration, Chinese calligraphy and landscape painting, Arabic calligraphy, the spoken word, and photography. Students will get to try their hand at each of these art forms, infusing them with original poetry written in genres beloved in Latin America, China, and the Middle East. Along the way, we go on several field trips (Harvard Yard, Boston's Holocaust Memorial, Little Italy, the harbor walk, and Chinatown) to experience public poetry-art intersections, all the while awakening our sensibilities of taste, sight, touch, smell, and hearing to shape our own poetry.

### **English Course, 10**

*O'Donnell*

In 10th grade English, two of our themes are the origins of language and writing and how language and stories helps us belong (or not belong). To explore both of these themes, we will ask ourselves: what are the fundamental, foundation stories of Western culture, the culture that we operate in every day? What is in these stories and their language that define and unite us, and what is in them that alienates us? We will explore the 'first stories' of three streams that feed "Western" culture: Greco-Roman, Germanic-Nordic, and Judeo-Islamo-Christian. We will look at foundation

creation myths, those first stories of belonging and exile, of a home that one is cast out of. We will then read one of the most classic stories about wandering, exile, and the struggle to find home: Homer's *The Odyssey*.

Skill-building is ongoing throughout the course, as students work on vocabulary building, with a focus on words with Greek and Latin roots, and language structure (grammar), particularly verbs and predicates. We practice discussion skills, with a focus on building points made, contributing to the rhythm of meaningful conversation. In writing and composition, the students work on constructing focussed paragraphs, analysis through comparison and contrast, and building fluency, through journaling/reflective writing and creative writing.

### ***Hamlet, 11***

*Main Lesson Block Class*  
*O'Donnell*

William Shakespeare's *Hamlet* is considered not only one of the greatest pieces of dramatic writing in English, but one of the greatest pieces of literature of all time. What makes this play so compelling? Why does it occupy such a central place in western literature, culture, and consciousness? Should it? This block explores Shakespeare's arguably greatest tragedy and these, and other, questions. The students read the play deeply and with intention. A performance project of a text from the play and a curriculum trip to Shakespeare & Co. and museums in the Berkshires further our study of the play and its themes.

### **Heroes and Monsters, 11**

*Main Lesson Block Class*  
*O'Donnell*

What makes a hero? How have our cultural lore and storytelling used heroic narratives to define our idea of ourselves? How have the monsters and villains of those stories, in conflict with heroic virtue, taught us to distinguish between acceptable and transgressive behavior? In this block, students explore these questions through some of the most iconic and memorable heroes and monsters in our literature: Gilgamesh, Beowulf, and Don Quixote. The class examines how the archetype of the hero and monster/villain has changed through time, leading to our modern iterations of the superhero and the anti-hero and the modern monster (the vampire, man-wolf, and zombie) as the enemy within. This course includes a research project with a presentation and practice in reading images and film as text.

### **Parzival, 11**

*Main Lesson Block Class*  
*Nicholl*

Taking elements of the well-known and often-told Arthurian legends, this book tells the story of Parzival's individual journey. It weaves together

aspects of the East and West and other “opposites,” allowing us to imagine the balance of polarities of all kinds. It is a picture not only of what we might strive for as individuals, but for humanity as well. Some aspects explored through this story are: separation from what we know, reflection on what we do, acknowledging our expanding orbits of experience, recognition of our effects on others and the world, and ultimately, compassion for others as a necessary part of becoming truly human. Students respond to these topics in essays and main lesson books and create an artistic project.

### **English Course, 11**

*Nicholl*

In this first semester course, we continue work with grammar, vocabulary, and writing skills, focusing on the critical or analytical essay. The semester includes a study of Romantic poetry and speech/discussion work. The students gain an understanding of the foundations of the Romantic era and the changes in the world at that time. Finally, we examine the Romantic novel *Frankenstein*, including an analytical essay, journal keeping, and class discussions.

### **Transcendentalists, 12**

*Main Lesson Block Class*

*Nicholl*

America found her literary voice in the mid-nineteenth century. Walt Whitman heard America singing and he sang out every aspect of our human experience. Who were the American transcendentalists? What inspired them? Were their ideas new? Do we see their ideas at work in the world today? Students read and discuss selected works of Emerson, Thoreau, Whitman, and Fuller. Classroom work is complemented by visits to Walden Pond, Sleepy Hollow and Mt. Auburn cemeteries. What does it mean to be an individual? What does it mean to be an individual in a community? Who am I and what are the challenges facing me at this time? Students address these questions, among others, and reflect on course material in their own transcendentalist journals.

### **Drama, 12**

*Main Lesson Block Class*

The culmination of the senior year is traditionally a drama project. The first phase involves the close reading of texts related to the history of theater and performance theory, including selections by Plato, Aristotle, Artaud, Brecht, Grotowski, and Barba. The second phase involves producing a play that will be performed for the public.

### **English Course, 12**

*First Semester*

*Delaney*

The literature portion of this class is devoted to studying Russian Literature. What is freedom? What is responsibility? Are we responsible to (or for)

anyone, even ourselves? Is there a God? If there isn't, then are all things possible? What is the nature of evil? Is it possible to be good and just in an evil world? These are some of the questions with which 19<sup>th</sup> and 20<sup>th</sup> century Russian authors and poets have grappled. Through studying the lives and works of Pushkin, Dostoevsky, Gogol, Tolstoy and Solzhenitsyn, we also explore and grapple with these issues. In addition to the required summer reading of a book from the reading list and the books *The Brothers Karamazov* by Dostoevsky and *One Day in the Life of Ivan Denisovich* by Solzhenitsyn, we read numerous short stories, plays and poetry. Our work is supported by a quick look at the geography and history of Russia. Students write character studies, comparative pieces and analysis of poems and short stories. They each present to the class a section of *The Brothers Karamazov*. In addition, students write weekly journal entries on given topics or current events. Vocabulary work includes exercises in the text *Vocabulary from Classical Roots*, Book E, and tests.

### *Second Semester*

We continue our work with Russian Literature. Each student researches the biography and poetry of a 19<sup>th</sup> or 20<sup>th</sup> century Russian poet, writes a paper and gives a presentation to the class. We end our study by reading several short stories by Nikolai Gogol and the Pulitzer Prize winning novel *Doctor Zhivago* by Pasternak. In addition to creative writing assignments, students write reports of the various books they read for their assigned book reports. Books are chosen from our 12<sup>th</sup> grade Reading List. We continue our weekly vocabulary work using the text *Vocabulary from Classical Roots Book E*, and journal writing.

## HISTORY

### **History through Art, 9**

### *Main Lesson Block Class Delaney*

Throughout our time on earth, human beings have expressed themselves through various forms of art. During this block we explore the foundation and development of Western art from earliest times through the 17<sup>th</sup> century, concentrating on the space arts of painting, sculpture and architecture. Our classes are a combination of presentations, discussions, the viewing of slides and prints, drawing and recitation. For their books, students write essays on material presented in class and copy works of art from the periods studied. There are two tests, one covering the first two weeks of material and the second covering the last two weeks. The block sometimes culminates with a trip to the Museum of Fine Arts.

## **Native American History, 9**

*Main Lesson Block Class*

*Delaney*

Long before Europeans settled on the North American continent the land was inhabited by hundreds of nations of people who came to be collectively called Indians. In this class, we explore several geographic regions of the continent and acquaint ourselves with representative cultures that developed in each. Beginning in the East, we study the history, culture, mythology, and religion of various nations up to the present as well as biographies of significant individuals. Grades are based on a student's understanding of the block material as demonstrated through class participation, the main lesson book and a final block test.

## **Revolutions, 9**

*Main Lesson Block Class*

*Nicholl*

“Revolutions” are seen as periods of violent and chaotic change, wherein powerful forces both create and destroy. But are there underlying patterns and rhythms to those terrifying, tumultuous events? The class explores historical revolutions in the political, economic, and cultural realms, studying the people who fought for change and those who resisted it. We attempt to answer the fundamental historical question: how does “change” happen?

## **American Studies, 9**

*Delaney*

*First Semester*

This year-long course traces the history of the United States from colonial settlement into the 19th century. First semester we build upon the work begun in the block on Native American History to better understand the land that Europeans called America and the forces that shaped the United States. We study the many explorations that eventually led to the founding of the colonies on the North American continent by England, France, Holland and Spain and the cultural and political influences brought by these colonists. As a small group activity, the class is divided into three colony groups. Within each colony, the students address issues similar to those that faced the early English colonists.

*Second Semester*

We continue to explore the history of the American colonies as they struggled to become a new nation under the Articles of Confederation. We study the development and implementation of the Constitution and issues of immigration. Students continue the work in their colony groups. They are given tasks and challenges to work out cooperatively that mirror some of the challenges faced by the American colonists and the young United States. In addition, students give short research reports on the modern states.

## **Ancient History, 10**

*Main Lesson Block Class  
Nicholl*

How did the earliest human civilizations see and understand the world? How much of our own understanding of the universe comes from these early societies? In this Main Lesson block, the class explores these questions by studying the cultures of Ancient Mesopotamia and Egypt. We look closely at what has survived from these cultures, from the earliest human myths and stories, written down centuries later, to the art and archaeological artifacts that have been found and preserved. In examining these primary sources from the ancient past, we discuss not only what the sources might reveal about the culture, but what the source's very existence might mean about ancient humans: why did they create those tools/stories/buildings *at that particular time*?

## **Ancient Greece, 10**

*Main Lesson Block Class  
Nicholl*

So much of modern Western Civilization points to Ancient Greece as its intellectual and cultural forefather. History, drama, logic, math, and philosophy (the story goes) were all “born” in classical Greece. In this Main Lesson Block we look more closely at this “birth” by examining primary sources from the period. If much of western cultural heritage began with the Greeks, how did they accomplish it, and in what ways have we adopted it? How were Greek people and their culture different from earlier, powerful civilizations (Sumerian, Egyptian) in ways that allowed them to create so much that was new?

## **Global Studies, 10**

*Nicholl*

In this year-long course, we examine how cultures and civilizations were created across the globe. After an examination of the ways humans have understood and represented the globe throughout time, the students explore the land, the peoples, the political structures and history, and the cultural forms of a variety of locations, including Africa, Ancient Persia, India, China, Polynesia, the Middle East, and South America. Our texts include current events reportage, textual and visual primary sources, and secondary sources.

## **Medieval History, 11**

*Main Lesson Block Class  
Delaney*

The downfall of the ordered Roman Empire created a chaotic situation in Europe that led to the development of feudalism and the founding of (often feuding) monarchies. The growing strength of the guilds, the rise of the middle class, monasticism, the founding of the mendicant orders, the influence of Islam, the medieval mystics, the growing heretical issues within the church, the development of law and the founding of universities are some

of the dominant political, religious, and social aspects that shaped the Medieval world of Europe which are covered in this block. In addition to participation in class discussions and writing answers to questions on the daily primary source readings from *Sources of the Western Tradition, vol. I*, students research and write essays for their books as well as an Introduction and Conclusion to the block based on class content.

## **Renaissance/Reformation/Enlightenment, 11**

*Main Lesson Block Class  
Delaney*

The Renaissance, with its rebirth of classical culture and development of humanism, is the starting point for this block. We trace the underlying transition in thinking that led to the birth of our modern empirical consciousness through the emerging individualism of this period and its impact on the religious reforms and counter-reforms as well as the advances in science that are hallmarks of this era. Finally, we contemplate the use of reason in the Enlightenment thinkers such as Descartes and Kant and the political works of Locke, Franklin, Paine, Jefferson and Adams. In the last week of the block we have a festival celebration of the arts in the fashion of the Renaissance.

In addition to class participation and critical readings in the text, *Sources of the Western Tradition, vol. I*, students do individual research for essays for their main lesson books and an art project. They also write two essays for their books based on their understanding of material from class, the Introduction to the block and the Conclusion to the block.

## **Civics, 11**

*Nicholl*

In this second semester course, we focus on civics in the United States. We analyze the creation of our Constitution, as well as how portions of it are played out in the world today. Students compose short essays and speeches for class debates, focusing on a number of topics. Exercises focus on critical thinking skills and developing ideas behind complex problems. Students also work on book reports from a multicultural book list, with titles highlighting a variety of viewpoints and backgrounds..

## **Modern History: Political and Economic Theory, 12**

*Main Lesson Block Class  
Delaney*

Grounding our studies in the ideas of Georg Hegel on dialectical thinking, we explore the question of the role that economic theories of the 19<sup>th</sup> and 20<sup>th</sup> centuries played in the unfolding of political practice. We review the economic theory of the 16<sup>th</sup> century called mercantilism and retrace the change of thinking from the Renaissance to the Enlightenment that spawned

the capitalist ideas of Adam Smith. From the economic revolution of classical liberalism and its outcome of laissez-faire politics, we explore the Utopian ideas of living with technology and the development and practical applications of the theories of Marxist socialism, communism, fascism and the radical romantic nationalism that led to Nazism. From the writings of Adam Smith, we move on to read from Thomas Malthus, Georg Hegel, Karl Marx and Friederich Engels, V.I. Lenin, Adolf Hitler, Eugene Victor Debs, Franklin Roosevelt and others. In addition to answering questions analyzing the nightly readings from *Sources of the Western Tradition, vol. II*, students write research papers on a current world or national issue. The main lesson book will also include three pieces based on class content: an Introduction to the block, a Conclusion to the block and short explanations of the major themes and terms discussed in class.

## **Developing a World View: Ideas & Consciousness, 12**

*Main Lesson Block Class  
Delaney*

*What is a modern person? What do I believe? What do I know? Who am I?* From ancient times to the present, cultures and individuals have struggled to answer the perennial questions that help define the nature of the human being and our relationship to the world and to the spirit. From ancient religions to modern psychology, this survey course reviews the ideas of the past, explores those of the present and looks to the possibilities of the future. Students write an in-depth research paper on one of the perennial questions and write daily journal entries of their own thoughts about these questions. The main lesson book also contains essays that demonstrate their understanding of class material, the Introduction to the block and the Conclusion to the block, as well as a short opinion paper on a current issue.

## **MATHEMATICS**

Each grade level is divided into two sections for math, though at times the sections may work together on particular units or projects. Students are grouped into sections considering their previous math backgrounds, learning styles, and individual needs. We often tailor the challenge level and teaching methods to the specific group and individuals through differentiated instruction, self-paced assignments, and individualized projects, so the content and depth covered can differ considerably from year to year or even from student to student. Narrative reports will reflect the actual content and projects successfully undertaken by each student. The following course descriptions give the overall developmental goals and content focus for each year. Students pursuing topics in significantly greater depth and progressing at a faster pace will earn an "extended path" designation on their transcripts.

## Counting and Probability, 9

*Main Lesson Block Class  
Oliver*

This course introduces the study of combinatorics. The students will tackle the challenge of identifying and counting the number of different possible ways in which the members of a set (whether they be people, playing cards, numbers, letters, or other discrete entities) can be grouped together subject to various constraints. The concept of “number of possible outcomes” raised by this work leads naturally into an exploration of some basic principles of probability. From this follows a discussion of how we can calculate or estimate probabilities in a wide variety of contexts in our lives. This includes estimating risks and understanding common fallacies in thinking about probability. Finally, we consider conditional probability, and how we can rationally update our estimates of probabilities as we gain new information about the world.

## 9<sup>th</sup>/10<sup>th</sup> Algebra

*Fries*

9th grade students learn to work with common mathematical functions and apply them in simple real-world situations. With a primary focus on algebra and an emphasis on functions and graphing, they work to develop and expand their skills writing, solving, and interpreting equations and graphs. These are related to describing rates of change as well as cause and effect using linear and quadratic functions. These topics are pursued in coordination with the study of precision and measurement in science blocks. Extended path goals often include expanding mastery to higher polynomial and exponential functions.

## 9<sup>th</sup>/10<sup>th</sup> Geometry

*Oliver*

10th grade students learn to “create math,” in the sense of discovering theorems using logic. With a primary focus on geometry and an emphasis on deductive reasoning, they work to develop and expand their skills in conscious, step-by-step reasoning and dynamic visual/spatial imagination. This is accomplished through constructions and proofs in Euclidean geometry involving points, lines, and angles as well as the fundamentals of 3D and spherical geometry. These topics are pursued in coordination with study of equations of motion, vectors, and celestial geometry in science blocks. Extended path goals often include expanding mastery to trigonometry and formal proofs across different branches of mathematics.

## 11th/12th Grade Math Elective

*First Trimester*

### **Differential Calculus**

*Swanson*

In this course, we will learn algebraic techniques for finding the derivative of all types of functions, including polynomials, exponentials, logarithms, trigonometric functions, inverse trigonometric functions, and functions that are combinations of all of these. We will also explore a variety of advanced applications of derivatives to perform optimization, approximation, and other real-world problems.

Prerequisite: To take this course, you should have already had an introduction to calculus and the concept of a derivative. If you took calculus with Ms. Swanson last year, we will pick up where we left off, using the same textbook.

### **Statistics**

*Oliver*

In this course, we will learn the mathematical techniques needed to make sense of messy real-world data, be it from a chemistry experiment, a political poll, or a medical trial. We will explore how to model random phenomena with probability distributions, how to estimate the parameters of a real-world system based on what you can observe and measure, and how to quantify how accurate your measurements are using statistical uncertainty.

Prerequisites: None. Individual work in this course can range from very simple to highly complex, so there will be something for everyone.

### **Quadratics and Motion**

*Fries*

In this course, we will explore the mathematics of quadratic equations through graphing parabolas, factoring, and interpreting their application in the study of rates of change. We will study graphs of speed, position, and acceleration, and how they change in different scenarios of constant speed or constant acceleration. We will solve word problems that deal with these situations.

Prerequisite: None. Individual work in this course can range from very simple to highly complex, so there will be something for everyone.

### **Integral Calculus**

*Swason*

In this course, we will learn the “other side” of calculus: integrating functions, which means finding the area under a curve. After defining integrals conceptually using sums and limits, we will learn algebraic, graphical, and numerical techniques for computing integrals, learn how integration and differentiation are connected, and explore applications of integration to physics, geometry, statistics, and economics.

Prerequisite: Differential Calculus

### **Mathematical Modeling with Functions**

*Oliver*

In this course, we will apply our mathematical expertise to understand and analyze both simple and complicated real-world scenarios. Possible applications include physics, politics, graphics, robotics, biomedical investigations, and socio-economic analysis. Along the way we will develop the mathematical language of functions, including linear, quadratic, exponential, and trigonometric functions, and how to combine and transform them to best represent the phenomena we are modeling.

Prerequisites: None. Individual work in this course can range from very simple to highly complex, so there will be something for everyone.

### **Exponents and Logarithms**

*Fries*

In this course, we will investigate equations where the variable appears as an exponent, and the inverse of these equations, logarithms. These equations have wide application to the study of population growth and interest rates and growth of savings.

Prerequisites: None. Individual work in this course can range from very simple to highly complex, so there will be something for everyone.

### **Multivariable Modeling**

*Swanson*

In this course, we will extend the concept of mathematical modeling to include functions of more than one variable, greatly expanding the realm of real-world situations that can be modeled. Possible applications include animation, astrophysics, geography, climate, finance, statistics, and more. (Topics can be determined by student interest.) We will explore a variety of ways to study and visualize multivariable functions, including work with

vector fields and contour maps. Much of this work will involve visualization software to graph multivariable functions.

Prerequisites: Mathematical Modeling with Functions OR Integral Calculus. These topics are traditionally part of the introduction to “Calculus 2” aka multivariable calculus, but this course won’t require a calculus background. Those who are coming out of the calculus class will have the opportunity to explore how derivatives and integrals can be applied to the multivariable functions we are working with.

### **Finance and Economics**

*Oliver*

In this course, we will study the mathematical language of finance, create business models for companies based on students’ ideas, and build economic simulations of these companies in spreadsheets. We will also touch on a broad range of financial topics including personal budgeting, bank accounts, loans and mortgages, credit cards, taxes, and the stock market.

Prerequisites: None. Individual work in this course can range from very simple to highly complex, so there will be something for everyone.

### **Trigonometry and Imaginary Numbers**

*Fries*

In this course, we will first review the basic trigonometric triangle ratios: sine, cosine, and tangent. We will then introduce more trigonometry ratios, then and investigate them as functions, including an exploration of trigonometric identities. We will investigate the graphs of all the functions in detail, and how various transformations affect the graphs. We will also take up the topic of imaginary numbers, i.e., how to take the square root of a negative number, and discover some surprising connections between imaginary numbers, angles, and trigonometry.

Prerequisites: Introductory trigonometry (definitions of sine, cosine, and tangent)

## **SCIENCES**

### **Biology I: Anatomy and Physiology, 9**

*Main Lesson Block Class  
Booth*

This course introduces students to the structure and function of the human body. Beginning with a historical perspective of anatomy, students will explore the basic organization of the body and its major systems. Physiological experiments will be conducted both to explore the functioning of different body systems and to gain an understanding of the scientific method.

## **Physics I: Thermal Physics, 9**

*Main Lesson Block Class*  
*Swanson*

Through student-designed experiments, we study changes in materials associated with changes in temperature: expansion, contraction, phase changes. This incorporates thermodynamics concepts including specific heat, the heat of fusion of ice, and the heat of vaporization of steam. We also explore different types of heat transfer (conduction, convection, and radiation) and their practical applications, ranging from the internal combustion engine to culinary techniques for making ice cream.

## **Earth Science/Chemistry I: Geochemistry, 9**

*Main Lesson Block Class*

*Oliver*

Through a series of hands-on explorations, field observations, demonstrations and discussions, this class introduces the fundamental chemical processes of our world. Following human history from the Stone Age through the Bronze Age and Iron Age, we will discover the role of key minerals and organic chemicals in developing our modern civilization. Then we will investigate where these substances came from, and the geological and biological processes that lie behind our society. Finally, we will look deeper into the big picture of life on Earth, how the Earth itself has formed and changed and how these chemical processes are continuing and changing today.

## **Chemistry II: Acids and Bases, 10**

*Main Lesson Block Class*  
*Oliver*

We begin by extracting acidic juices from fruits and investigating our own built in chemical sense of taste. We then compare taste tests to color changes that occur with indicators: special juices that change color when added to different liquids. These help us discover antacids, substances which seem to neutralize the sharp taste and caustic action of acids. Through extensive hands-on lab work, we learn to use acids and antacids (bases) to produce and identify various common substances known as salts. We also explore the interaction between acids and metals, and learn lab techniques including quantitative titration, gas capture, and several analytical tests. Through this lab work and classroom discussion, we develop the concept of ionic compounds and begin to introduce modern chemical names and reaction formulas.

## **Physics II: Mechanics, 10**

*Main Lesson Block Class*  
*Swanson*

Students study how physical movement, force and energy work through scientific experiment, philosophical reflection, and active movement.

Beginning with describing the motion of our own bodies while walking, running, balancing, and falling, we move from our everyday unconscious intuitions about motion to the kind of specific technical language and thought that has made modern civilization and technology possible. After developing a clear mathematical framework for describing motion using the ideas of speed and acceleration, students explore how motion can be caused or changed by gravity or other interactions. These discoveries lead them to an understanding of the concepts of energy and forces.

## **Biology II: Embryology and Cell Biology, 10**

*Main Lesson Block Class  
Booth*

In this course, we begin with a consideration of the basic organization of the cell — its structure and the function of subcellular components. We discuss the different processes of cell division involved in the formation of gametes and the growth of organisms, and how these division processes relate to the transmission of genetic material. We then turn to developmental biology, asking the fundamental question: how do complex organisms develop from a single fertilized egg? We end with a discussion of recent technological developments and their medical and societal implications.

## **Earth Science II: Navigation, 10**

*Main Lesson Block Class  
Swanson*

In this main lesson we explore both ancient and modern methods for answering the question, "Where am I?" incorporating astronomy, history, geometry, and outdoor living skills. We build several traditional celestial navigation tools used by seafaring explorers to measure location using the geometry of the motion of the sun and stars. We also learn about the history of how scientists and navigators toiled to find a method for measuring longitude at sea, culminating in the invention of the marine chronometer in the 1700s. Furthermore, we explore modern navigational methods of GPS by participating in a global scavenger hunt known as geocaching. On the class field trip, we put these skills into practice through orienteering on land and water, using the sun and stars to measure our latitude and longitude as we travel.

## **Chemistry III, Nature of Matter, 11**

*Main Lesson Block Class  
Oliver*

We take up the question, "What is the nature of matter?" – a question which has occupied humans for millennia. The periodic table is, in many ways, an icon of the twentieth century. We learn the history of the table, how it is arranged, and how to use it as a tool. In addition, we focus on the real experience of a number of different elements, since the table does not convey

many of the qualities of the elements. Hydrogen is much more than an atomic number, weight, and density. Work continues on chemical equations.

### **Physics III: Electricity and Magnetism, 11**

*Main Lesson Block Class*

*Swanson*

The focus of this course is the study of phenomena due to static electricity, electric current, magnetism, and electromagnetism. Starting with simple experiments making static electricity by rubbing fur on rubber, we build up our understanding to learn about how lightning works and experiment with artificial lightning using a Van de Graaff generator. Students gain an understanding of charges, electric and magnetic fields, as well as their interactions. Practical applications, such as the radio, relay, and dynamo are explored: we learn how the interactions of electricity and magnetism are used to build generators and motors.

### **Biology III: Botany, 11**

*Main Lesson Block Class*

*Nicholl*

In this course students focus deeply on the plant world. We examine how plants have developed over time and the different reproductive cycles. We study plant anatomy, both of full plants, as well as their fruit and flowers. The class also discusses plant identification, which is highlighted on our curriculum trip.

### **Laboratory Science, 11**

*Swanson/Oliver*

*First semester*

The focus of this course is on student-chosen independent research projects. Students are guided through the process of selecting interesting scientific research questions and designing their own experiments to try to answer them. Student work on these projects is integrated with a study of scientific method and mathematical data analysis. Students present their work at an exhibition for the school community at the end of the semester.

*Second semester*

The focus of this course is on energy flow in mechanical and biological systems. We explore different types of energy (kinetic, potential, mechanical, electrical, chemical, heat) and how they change forms by building a Rube Goldberg device involving many types of energy transformations in a chain reaction. We then study ecobiology through field and laboratory study of macro invertebrates (insects, worms, and arachnids), followed by lab culture and microscope observation of fungus anatomy and physiology. We build to an understanding of ecosystems through the ways

different organisms (including humans) harness and use different forms of energy.

**Biology IV: Zoology and Evolution, 12**      *Main Lesson Block Class*  
*Oliver*

From the earliest simple microscopic organisms to the richly complex ecosystems present on Earth today, we explore the history and diversity of animal life. We begin with the grand view of the history of our planet as revealed by fossils and the big picture of all animal life on Earth, sorting out familial relationships between types of species. The third week is spent on Hermit Island in Maine studying invertebrate sea life through direct observation and lecture/workshops. Finally, each student researches, documents, and gives a presentation on a different category of vertebrates.

**Physics IV: Optics, 12**      *Main Lesson Block Class*  
*Swanson*

The sense of sight is an enormous part of our experience almost every waking moment. In this course, students have a number of visual experiences designed to challenge their everyday intuitions of what it means to see and deepen their understanding of sight and light. Student learn both how artists create visual experience and how scientists probe its mysteries. Beginning with the phenomenon of illumination and color, we then study the physiology of seeing and physics of light.

**Chemistry IV: Biochemistry, 12**      *Main Lesson Block Class*  
*Booth*

This course seeks to give students an appreciation of life at the molecular level. We first consider some of the unique features of the carbon-based chemistry of life. Three main themes are then addressed. One is the structure and function of proteins – the molecular machines that perform a vast range of functions within the cell. Moving from proteins to nucleic acids, we next ask: what is a “gene”? What are the approaches used and challenges involved in drawing the connections between the molecular level of genes and proteins and the organismal level of traits, diseases, and other complex characteristics and outcomes? Finally, we consider how chemical energy is derived from food and used to drive the many processes of the cell.

## SPANISH

*Romeu*

Our Spanish curriculum prioritizes making students feel welcome and at home in the Spanish-speaking world with its inspiring cultural diversity and many nuances.

The classroom for each grade is heterogeneous in linguistic levels, and students spend part of every week pursuing long-term personal projects that are appropriately challenging for each individual. True to the artistic and intellectual inclinations of our students, recent projects include: completing a free online history course in Spanish from the Universidad Autónoma de Madrid, composition and performance of original spoken-word poetry in Spanish, 3-D digital modeling of the Arco de la Victoria in Madrid, production of a video tutorial in Spanish on natural hair maintenance, translation of Latin American poetry, and research papers on the Catalan independence movement, Colombian culture(s), and the Spanish photographer Chema Madoz. Key to this process are the students' elaboration of goals in a project proposal and participation in periodic feedback sessions to evaluate progress.

Group instruction focuses on continually gaining proficiency with the major skills of listening comprehension, speaking, reading, and writing, all assessed with low-stakes high-frequency strategies, which research and practice have shown to be effective in promoting retention and reducing testing anxiety. Students graduate in the intermediate to advanced ACTFL range and leave our school with the confidence for traveling abroad, further study in Spanish, and/or the pursuit of a new language.

Throughout the arc of our Spanish program, students also engage with historical and cultural artifacts and primary sources relating to topics that intersect with social justice concerns, such as the Spanish Conquest of the Americas, indigenous populations and languages, the transatlantic slave trade, ethnicity and identity in Latin America, and current events. This prepares students to intelligently participate as global citizens in important societal conversations.

International exchanges are possible, and a number of our students have spent a part of the year in Waldorf high schools in Spain, Argentina, Colombia, and Peru. In turn, students from many countries (Spanish-speaking and others) also regularly study with us, giving everyone a chance to benefit from cultural exchange.

Last, always seeking to grow in new ways, the Spanish program has a current goal of increasingly taking advantage of the Hispanic cultural

resources in the Boston area; first on our list is going to a variety of restaurants to explore the gastronomic traditions of Latin America!

## MULTIDISCIPLINARY

### **Multidisciplinary Seminar “Inquiring into Truth”, 12** *Booth*

What is truth? What is true? These questions have particular relevance in our society today, and this seminar challenges the seniors to think about how they decide for themselves what is true and what truth means. Emphasizing personal reflections, group discussions, and critical thinking exercises, instructors from multiple disciplines will guide the students in the contemplation of truth, covering wide-ranging topics including the assessment and distortion of scientific data, cognitive biases, the use and abuse of statistics, denialisms, propaganda, social media, and more.

## FINE ARTS

### **Fine Art, 9**

*Bettencourt*

In 9<sup>th</sup> grade students work *primarily* in black & white media to allow them to focus on compositional concepts and elements including contrast to achieve impact, lighting considerations, spatial depth, linear elements, positive & negative space, variety & unity of shapes, textures & patterns, and the establishment of a focal point. In addition, students practice drawing strategies including various shading techniques, one point perspective, and “blind” contour exercises to enhance their subsequent observational renderings. Most importantly, students build confidence in their ability to do original thinking as they plan out original compositions while fulfilling specified design requirements.

### **Fine Art, 10**

*Bettencourt*

In the 10<sup>th</sup> grade students continue to study compositional elements introduced in 9<sup>th</sup> grade while simultaneously exploring the world of color. Color investigations include the following: Monochromatic color, analogous color, and complementary colors separated by neutrals; the expression of mood through color choice; aerial perspective and depth achieved via contrast of soft ambiguous background color use such as wet on wet watercolor compared with hard edge bolder colors in the foreground. A major emphasis in the course is the development of students’ comfort level with their creative thinking ability. They become increasingly adept at producing innovative individualized responses to the structure of each assignment.

## **Fine Art, 11**

*Bettencourt*

Students continue with drawing and painting. They are challenged to experiment and expand on the fundamentals from previous years. Independent work increases. Some time is devoted to observations of contemporary and historical artists in order to familiarize students with the processes of artists and to provide inspiration and a point of departure for their own work. A sketchbook / journal is encouraged for the student to reflect, record and devote private time to the development of their personal artistic / poetic "voice".

## **Fine Art, 12**

*Bettencourt*

In the 12<sup>th</sup> grade, students continue to develop art built around their own sensibilities and natural tendencies. A self-portrait is a formal assignment as well as a series of independent projects. Also, larger scale works and experimentation is encouraged. Individual projects are important for the development and cultivation of a personal vision in art as is working with materials of choice. A sketchbook / journal is an important aspect of outside work to record ideas and images. The sketchbook becomes an auto-biographical collection of the year. Critical thinking and dialogues about art and aesthetics are part of daily experiences in class.

## **MUSIC**

### **Chorus, 9, 10, 11, 12**

*Elliott*

At Waldorf schools, singing together is an important part of the curriculum; we believe that it is good for the body and the soul. All students are part of the chorus, which meets 3 periods weekly as a required course and is graded as such. Basic music and singing skills are incorporated as students learn a wide variety of music that can include rounds, folk music, pop music; traditional octavos are all part of the repertoire. Students who play various instruments are often called upon to embellish the accompaniment. The chorus performs twice during the school year as part of the winter and spring Arts Night(s) and may also travel to off-campus venues to perform as well.

## **INCLUSIONS**

### **English Language Learner Supplementary Track and Options**

*Voutilainen-Lynch*

In order to meet the unique needs of our English language learners, these students are required to take the following:

A. After School (at WHS) students will receive ESL instruction which will include homework support for all classes. The class is taught three times per week after school is out for the day. There is an additional focus on the cultural challenges facing international students. The course is graded and appears on the student's transcript as a credit earned toward graduation.

B. In addition to the after school ESL instruction, these students will also either choose to take Spanish as a track class along with the other students of the school, or they may opt out of Spanish and instead use the Spanish class time to independently work on ESL materials, counting toward their foreign language requirement.

### **Senior Seminar**

*Secor*

A gathering of independent thinkers, this seminar is a great opportunity for the seniors to meet once each week and engage in a variety of discussions and debates related to current events and other topics of concern in contemporary society. We will also focus on the senior internships and meet deadlines regarding initial exploration of internships, cover letters of application, and so forth.

### **Physical Education, 9, 10, 11, 12**

*Nicholl*

Physical fitness builds self-confidence and self-esteem, laying the foundation for a happy, healthy and fulfilling life. Our students experience a daily habit of movement and exercise by incorporating ten minutes of movement together, Monday through Thursday after lunch, rather than one forty minute period per week. In addition to daily movement, students participate in required intramural activity of a minimum of one afternoon per week for 8 weeks.

### **Practical Internship, 12**

*Elliott*

Senior Internships intend to give students a firsthand look at the world of work and to explore or expand upon a field of interest. During the first two weeks the students are out of all classes, working at an establishment or business and also keeping a journal of their experiences. Then, there is a third week back at school, with the morning Main Lesson period devoted to writing a Senior Internship Journal/Main Lesson Book and preparing individual Senior Internship presentations. Students are required to take significant initiative in determining a field of interest and possible internship sites, formally contacting the establishments, deciding on a definitive site, following up in various regards (e.g. sending thank you letters), working out any related issues/obstacles (e.g. transportation to and from the site), and so forth.

## Community Service, 9, 10, 11, 12

Twenty hours of community service are required for all high school students each year. Our objective is to give students experience in a broad spectrum of service areas in order to instill a greater understanding toward the earth, their community, and people of all walks of life. The following themes are presented as strong and thoughtful suggestions for service, not requirements:

9<sup>th</sup> grade – farming, trail work, recycling program, animal care

10<sup>th</sup> grade – elderly

11<sup>th</sup> grade – tutoring or teaching children

12<sup>th</sup> grade – serving those in challenging situations (homeless, refugees, ill, those dealing with substance abuse)

Community service assignments must be approved by WHS's Director and verified by the organization. Once verified, it will be applied to a student's required time and entered into the student's file.

The 9<sup>th</sup> and 10<sup>th</sup> graders will complete 10 of the required 20 hours on their fall trip. If so desired, 9<sup>th</sup> and 10<sup>th</sup> graders can perform on-site service before and after school and during lunch to complete the remaining 10 hours due. Notification of these opportunities will be announced at school.

The 11<sup>th</sup> and 12<sup>th</sup> graders must fulfill all 20 hours outside of the regular school day. Students can do service towards the coming year over the summer, but service obligations cannot be carried over year to year. Service not completed for any given year will be marked as incomplete on transcripts. Seniors who have not completed community service requirements will receive diplomas only upon completion of this requirement.

It is not in keeping with the spirit of our community service program to combine the Waldorf High School community service requirements with other service requirements from an extra-curricular program. If a student wishes to do so, a written request must be submitted to the Director. Any such additional community service performed beyond the WHS requirement may be reported to the school and will be included as additional in a student's file after it is verified by the person organizing or supervising that activity.

The "TeenLife Guide to Community Service in Greater Boston" is available on the TeenLife website as well as in the main office. Students and parents may browse through this book in the office.

## Class Trips

In addition to day trips, there are generally two extended curriculum trips per grade per year. They are an integral part of our academic program and crucial to the social fabric of the class. Consequently, all students are expected to participate in them. Exceptions will be made for those students with a doctor's written excuse. A student who misses a trip that is part of a main lesson block may receive partial credit for that class.

- 9<sup>th</sup> Grade: Community Service Trip; The Novel: Moby Dick
- 10<sup>th</sup> Grade: Community Service Trip; Navigation
- 11<sup>th</sup> Grade: *Hamlet*; Botany
- 12<sup>th</sup> Grade: Zoology

## Practical Arts and Electives

### Acting and Performance, *two trimesters*

*O'Donnell*

The Drama Elective offers the opportunity for students who wish to explore the acting and performance more deeply. In class sessions and extra-curricular rehearsals, students delve into choosing a challenging play, interpreting the language, exploring their characters, and practicing and developing techniques to bring a character to life. Students in the drama elective work on complex, modern pieces for most of the year as well as perform plays for the community in April. Recent performances include Tennessee Williams' "The Glass Menagerie" and several of his one-act plays, Sam Shepard's "True West", Sarah Ruhl's "Eurydice", Frank Wedekind's "Spring Awakening", and Tina Howe's "Painting Churches".

### Crafting Techniques 9, 10, 11, 12

*Secor/ Nicholl*

In this Practical Art, students will be introduced to various forms of crafting technique. We will explore several types of paper crafting ideas including party décor, paper airplanes (with flying contests!) and origami. We will also dedicate a portion of our time together to learn basket weaving from Mr. Nicholl! We will end the elective with a lesson in cookie decorating (and eating!). Some of the crafts created by the students can be displayed at Arts Evening and our annual Auction event

### Destination Imagination 9, 10, 11, 12

*Swanson*

Destination Imagination (two trimesters - students must participate in both). Students must participate in both sessions. This means we will meet during school 2 times a week in December and January. There will also be some

meetings outside of school time scheduled during February and March as the tournament approaches.

In this elective, students will participate in the Destination Imagination (DI) program, a creative problem-solving competition where teams of 2-7 students choose a challenge and work together to develop a solution to present at a tournament in March. Teams that do well move on to the state tournament and perhaps even to Globals. DI challenges range from engineering-based (e.g., build a device to move objects through a course) to artistically-based (e.g., write a play telling a story from three different perspectives) and are designed to encourage holistic, divergent, and innovative thinking skills. Previous years' teams have made a hovercraft slingshot vehicle, a stage that can move a person, and a robot that can navigate a maze. This year's team will do something totally different, depending on which challenge they choose and their own creative ideas. Participants will be required to attend the DI regional tournament, which will be a full-day event on a Saturday in March. (March 9 or 16, TBD) For more information about DI, check out [www.destinationimagination.org](http://www.destinationimagination.org).

### **Farming at Codman Farm 9, 10, 11, 12**

*Bellwood*

Come be a part of a working farm. In this course you will get to explore and work at Codman Farm located in Lincoln just 15/20 minutes away from the school. We will get to work with the farmer by helping to work in the vegetable garden as well as with the animals.

Students will need to be prepared with appropriate clothing including boots/good footwear, hats, sunscreen, long pants with socks, and water bottles. Students will have the opportunity to spend the duration of the spring outside, rain or shine, so if you love the outdoors, this is for you.

### **Film Making 9, 10, 11, 12**

*Oliver*

In this course, students develop skills in digital filmmaking. While most of the time is spent on writing, shooting and editing individual and small-group film projects of the student's choice, some skill-building assignments are also required of all participants.

### **Magic & Juggling 9, 10, 11, 12**

*Swanson*

Let's have a blast learning magic tricks (and learning to juggle)! Beginners are welcome, and experts are invited to collaborate with Mr. Pischner and Ms. Swanson to teach new tricks. Students will perform a magic show for the Winter Practical Arts in December.

**Model U.N., 10, 11, 12***Delaney*

The Model UN elective gives students an opportunity to advance their understanding of international politics by attending a model U.N. conference as delegates of a U.N. member nation. Prior to the conference, students research their assigned topics and write position papers that are the basis for their participation in the committee debates and discussions. At the conference, student delegates follow U.N. procedures to pass resolutions on their topics. Laptops are essential. Prior discussion with Ms. Delaney is required.

**Music and Technology 9, 10, 11, 12***Elliott*

If you enjoy technology and music then this is the class for you! Do you enjoy learning about performing and other skills involving music? Well, we will be dabbling in multiple fields of music, from performing, to writing, to creating podcasts, to recording. We will spend time working on arrangements of tunes to play as a group. Then we will move into software used for notating short compositions that you will write. We will spend time learning the ins and outs of Garageband and Logic Pro X, using these programs to record podcasts and create digital music compositions. Lastly, if there is time, we will learn the basics of recording using microphones and proper microphone placement. We might even perform some original compositions. This course is on Wednesdays for the entire first semester. Hope to see you there!

**Painting 9, 10, 11,12***Bettencourt*

In this semester long course students will explore three different types of painting: watercolor, acrylic and oil. We will work in the studio from still life, on location from nature and from students' imaginations.

**Wildcraft Waterways 9, 10, 11, 12***Riman*

Explore, discover and connect with nearby wildlands and yourself. Practice the ancient and indispensable arts of aidless navigation, wildlife tracking, ethnobotany, bird language, shelter building, camp craft and finding comfort in all weather. Deepen your awareness of place through play and focused investigations. Prepare to get dirty and/or wet. Seasonally appropriate clothing required.

**Yearbook 9, 10, 11, 12***Nicholl*

Students focus on layout. They manage publication deadlines and proofread the yearbook prior to submission. They also finish soliciting advertisements and recognitions, and make sure all photos are complete. They carry on with photographing students, faculty, and school events.

## **FACULTY AND STAFF PROFILES**

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### **Aileen Bellwood** **Farm Program Coordinator**

*Ph.D. Environmental Biology, University of Massachusetts Boston*

*M.S. Biomedical Engineering, Boston University*

*B.S. Biology, State University of New York, Albany*

Aileen has an in-depth understanding of sustainable agriculture, conservation and environment, and is passionate about building healthy communities. Her experience spans multiple work environments, including eleven years as a farming/gardening and food literacy educator, nineteen years in community-based food systems, and sixteen years in biological sciences and engineering. Aileen currently teaches at Lesley University in the Department of Natural Sciences and Mathematics. In addition to teaching, Aileen serves on the Board of Directors for the Somerville Community Growing Center, where she has also worked as Site Manager and Garden Educator.

### **Sarah Bettencourt** **Fine Art**

*M.S. Education, Harvard University*

*B.A. Visual Arts and English, Trinity College*

Sarah's experience includes nine years of full-time teaching experience in both Visual Arts and Humanities at Andover High School, Andover, MA, and the Match Charter Public School in Boston. She holds a Masters of Education degree from Harvard University and a degree in Visual Arts and English from Trinity College and studied at the School for International Studies in Nairobi, Kenya. Sarah's own work in photography has been exhibited at Cambridge Multicultural Arts Center, the Gutman Library at Harvard University and as a permanent exhibit at Trinity College.

### **James Booth** **Science & Math**

*Ph.D. Biophysics, Harvard University*

*B.S. Physics, Specialist in Physiology, University of Toronto*

James joins Waldorf High School with experience as a teacher, lecturer and instructor at the University of Toronto and Harvard University. He has authored over 18 research papers and served as a research supervisor for undergraduate and graduate students at Brandeis University and the

University of Toronto. James values the phenomenological approach to teaching science practiced in Waldorf schools and is interested in questions of how science affects our day-to-day lives and the decisions we make as individuals and as a society. His key goals are helping students to develop critical thinking and to ask the question “how do we know what we know?”

### **Kathleen Casey**

#### **Office Manager**

*B.S. in Business Administration, Trinity College*

Kathy has experience in both private school administration and the corporate world. With a Bachelor of Science in Business from Trinity College, she has served in administrative leadership positions at both the Wooster School in Danbury, CT, and the Whitby School in Greenwich, CT. With her high level of administrative skills, years of experience and warm demeanor, we are fortunate to have Kathy as a member of our team.

### **Ellen Delaney**

#### **Humanities**

*Marist College, major in American Literature*

*B.A. cum laude Early Childhood Education, William Paterson University*

*Waldorf High School Teacher Training (Humanities), Rudolf Steiner College*

Ellie is a full time teacher in our Humanities program, teaching history and English. She was a kindergarten teacher for sixteen years and an elementary class teacher in grades 5-8 for seven years, graduating two eighth grade classes from The Waldorf School, Lexington. Ellie has more than 30 years teaching experience and has spear-headed the development of the high school history curriculum. She served on the AWSNA (Association of Waldorf Schools of North America) Accreditation Committee for twelve years. Ellie also served on the Board of Trustees and is a member of the Collegium.

### **Stephen Doyle**

#### **Financial Manager**

*B.S. in Business Administration, major in Accounting,*

*University of Massachusetts, Lowell*

Stephen has 25 years of extensive accounting and non-profit experience, both as a manager and team leader of accounting and clerical staff. Working first for an accounting firm in Waltham, MA, he now enjoys handling the

financial operations for non-profit, mission driven organizations, such as Waldorf High School, and holds a similar position for a non-profit organization serving students with special needs. Stephen is the father of three; two daughters currently attending local New England colleges and a son, who is a middle school student.

**Anastasia Elliott**  
**Chorus Director**

*B.A. Music Education, Connecticut College, Certification of Music Education K-12, Minor in Biological Sciences*

Anastasia comes highly recommended by The Williams School in New London CT, for her work as Music Director and science and Latin teacher. With an extensive music and piano background and a BA degree in Music Education from Connecticut College, Anastasia's specialties are in both vocal and instrumental music. She brings her experience as music director for a variety of musicals and cabarets in independent theater companies and college venues, as well. With a minor in biological sciences and experience as a tutor and classics teacher, she is ready also to lend her skills and energies as our Learning Support Coordinator.

**Thomas Fries**  
**Math**

*M.S. and Ph.D. Physics, Tufts University*  
*B.A. Physics, Dartmouth College*

Thom's professional career includes work as a financial engineer for Lewtan Technologies and as Vice President, Analytics for BondSpace.com. His most recent post has been as full-time care-giver for his three children, now all teenagers, while his wife pursued a successful law career. His enjoyment of his time spent with his children led to his interest in teaching; our educational approach and the opportunity to teach math.

**Tuija Voutilainen Lynch**  
**Admissions Director**

*B.S. International Business and Finance, Suomen Liikemiesten Kauppaopisto, Helsinki, Finland*

Tuija has more than 24 years of Waldorf administration experience. Most recently she has served as Admissions Director at the Waldorf School, Lexington, and prior to that, she was Business Manager/Treasurer at

the Waldorf School of Atlanta, Georgia. Additionally, Tuija is fluent in four languages: English, Finnish, German, and Swedish. Her knowledge of Waldorf education is extensive and she is skilled at making the admissions process as seamless as possible. Three of Tuija's four children attended and graduated from Waldorf High School, giving her first-hand knowledge of the Waldorf high school parent experience.

### **Alex Nicholl**

#### **Humanities/Science/Health & Wellness/Athletic Director**

*B.A. in History and Secondary Education, Roger Williams University*

At Nature's Classroom in Charlton, Massachusetts, Alex led the outdoor education program, conducted nature hikes and taught science. He taught school in England for two years and English as a Second Language in Korea. In college, Alex was a Resident Advisor, responsible for freshman orientation, and an on-air DJ for the University's radio station.

### **Joseph O'Donnell**

#### **Humanities**

*M.A., History, Harvard University*

*M.A.T. History Education, Boston University*

*B.A., West Virginia University*

*Waldorf Teacher Training, Center for Anthroposophy*

Joseph received his B.A. in History, English, and Foreign Languages at West Virginia University. While there, he also pursued a life-long love of music and theater, directing church choirs through high school and college and performing in children's and community theater. Joseph moved to Cambridge, Massachusetts to attend graduate school at Harvard. Joseph spent a year in Paris, France as a Fulbright Scholar. He completed his Waldorf High School teacher training at the Center for Anthroposophy in Wilton, New Hampshire.

### **Dick "Cedar" Oliver**

#### **Science & Math**

*University of Michigan*

*University of Maine*

*Waldorf High School Teacher Training, Center for Anthroposophy*

*Spatial Dynamics Training*

Cedar Oliver joined our faculty after serving as a full-time Waldorf high school teacher at High Mowing School in Wilton, New Hampshire for 12 years. He is the author and co-author of 21 books on math, science, and computer technology. He developed an aquatic habitat analysis system for the US Bureau of Land Management and has worked with customers and clients in 49 countries around the world applying cutting-edge math and science in diverse scientific, financial and artistic disciplines. In addition to teaching all ages in numerous schools and conducting teacher training programs, he co-founded a Waldorf-based public school community education program in Montpelier, Vermont. Cedar also serves on the Board of Trustees.

**Robert Riman**  
**Wilderness Program Coordinator**

*B.A. Geology, Colgate University*

Robert Riman began leading peers outdoors while pursuing his B.A. in Geology at Colgate University. Over the 30 years since, his work as a naturalist, expedition guide and wilderness educator has led him across the continent and beyond, having taught for the National Outdoor Leadership School (NOLS), Outward Bound, Kroka Expeditions, White Pine Programs, Vermont Wilderness School and Massachusetts Audubon Society. Additionally, he instructed New York City youth in traditional wooden boat building, and following graduate studies in architecture and sustainable design at the Boston Architectural College, he served as a founding director for the Home Energy Efficiency Team (HEET), a Cambridge based nonprofit. He holds a captain's license with the U.S. Coast Guard, and maintains a Wilderness First Responder certification.

**Emma Romeu**  
**Spanish**

*M.A. Spanish Language, New Mexico State University*

*B.A. Geography, Havana University*

Emma holds a master's degree in Spanish and a bachelor's degree in geography focused on environmental sciences. A native speaker of Spanish, Emma is an author whose books have been published in the United States, Spain and Mexico. She has published two books of poetry and numerous children's books and books for youth, both fiction and non-fiction, in Spanish. One of her books for children is placed in school libraries across Mexico to help raise awareness of environmental issues. As a freelance writer, Emma's articles have been published in National Geographic and she

has been a biodiversity writer for the National Commission on Biodiversity, Mexico. She has taught all levels of Spanish courses. Currently, she is a part-time professor of Spanish at Berklee College of Music. Previously, she has been an adjunct professor of Spanish at the University of Massachusetts, Lowell, and Massachusetts Hospital Institute for Health Professionals teaching Advanced Spanish for graduate students. As well, Emma has taught high school Spanish at Gann Academy.

## **Michelle Secor**

### **Guidance Counselor**

*M.A. M.A. Counseling Psychology, Specialization in School Counseling, Lesley University*

*B.A. Sociology, Human Services Concentration, Framingham State College  
Massachusetts State License, School Guidance Counselor, K-12*

Michelle holds a Master's degree in Counseling Psychology and has been working in education for over 7 years. She came to us from Wayland public schools where she taught in an Alternative Resource Center providing a safe learning environment for the students in her care. Michelle worked as a Guidance Counselor at the Butler and Burbank Elementary Schools in Belmont, MA where she provided individual counseling to students and completed her internship requirements at Belmont High School. Prior to her work in Education, Michelle spent 5 years at Fidelity Investments and also worked for the Commonwealth of Massachusetts in the Office of the Governor

## **Molly Swanson**

### **Science & Math**

*Ph.D. Physics, Massachusetts Institute of Technology*

*M.A. Teaching, Tufts University*

*B.S. Honors, Physics, California Institute of Technology*

*Massachusetts Educators License, Physics, Grades 8-12*

Molly did academic research in astrophysics and cosmology before completing her teaching internship with us, earning her Masters of Arts in Teaching from Tufts University. Molly adds that degree to her Ph.D. in Physics from MIT, and her B.S. in Physics from California Institute of Technology. Molly completed her Massachusetts's Educator's License in Physics, 8-12, and has an Initial License for Math, 8-12 and one for Moderate Disabilities, 5-12. Molly is a proponent of and is committed to a phenomenological approach to teaching the sciences. Before coming to Waldorf High School Molly taught at Acera School, MIT Educational

Studies Program, University of London Observatory, University College, London, and was a teaching assistant for MIT physics courses.

**Laura B. White**

**Director of Marketing & Communications**

*B.S. International Business, Roger Williams University*

*Spanish Language Immersion Program, Universidad de Granada, Granada, Spain*

Prior to joining Waldorf High School, Laura's talents were valued at TechTarget, in Newton, MA as Marketing Campaign Manager, International Program Manager, and Product Marketing Manager. Laura is experienced in product portfolio management, social media marketing, and website management and performance evaluation. She was awarded the TechTarget Excellence Award in 2014.

**Mara D. White**

**Director of School**

**Humanities**

*Sociology, Suffolk University*

*Waldorf School Administration and Community Development, Sunbridge College*

*Waldorf High School Teacher Training, Rudolf Steiner College*

Mara has been involved with non-profit organizations and Waldorf education for over 35 years. She was the Administrative Chair and Community Relations Coordinator at Hawthorne Valley Waldorf School from 1991 to 1996. Mara was a founder of DANA, the Development and Administrative Network of AWSNA (Association of Waldorf Schools of North America), in 1993 and served as its Chair through 2010. Mara served on the AWSNA Leadership Council for four years. She was a core faculty member of the Waldorf School Administration and Community Development Program of Sunbridge College and adjunct faculty of the Administrative Course at Rudolf Steiner College from 1996 to 2008. Mara also serves on the Board of Trustees and is a member of the Collegium.

