

# Waring School Course Catalog 2018-2019

## Core

Core is a two-year program that seeks to introduce younger students to the culture of Waring School and to work on those skills which students need for continued success at Waring. For this reason, although the content of our curriculum varies from year to year, the skills we emphasize remain constant. In order to help students with the transition from their primary school environment, where they have usually worked in a self-contained classroom, Core students have a team of teachers who are responsible for Humanities, French, Science, Math, Writing, Music, Art, and Theater classes.

One of the primary overall objectives in Core is to strengthen organizational skills, which are key to success in Waring's program. We stress such skills as keeping an assignment book, keeping handouts and readings organized, turning in assigned work on time, bringing necessary equipment to class (pencils, pens, notebook, readings, etc.), taking notes, reading in the content area, undertaking research, writing neatly and legibly, typing and word processing, and, last but not least, budgeting time.

As in the upper school program, Core Humanities classes integrate history and literature, along with elements of art history and music. We work on content skill areas such as interpretive reading, group discussion, listening, notecard writing, "chronological literacy," note taking, and memorization. Core Science, which includes both life sciences and physical sciences in alternating years, stresses investigation, accurate observation, analysis of data, and communication. Core Math is an integrated program that explores and investigates pre-algebra and algebra skills and concepts, providing the basis for our upper school mathematics program. Students are introduced to French aurally at first, approaching it through listening, imitating, and speaking, which leads to the addition of reading and writing from their second semester onward. In Core Writing, students begin the process of finding their written voice, which we find so important for our students.

Other parts of the Core program introduce our students to a diverse set of skills and experiences. They begin to draw from observation, they learn Theater technique, and they study music, first through dance and rhythm and later by learning the basics of Music Theory. Many Core students will begin the study of a musical instrument. Others will continue to improve skills they already have. All students sing together in Core Chorus.

A unique feature of the Core years is our French Immersion program. In addition to introducing students to French in our regular French classes, we teach two to three other class periods in French. These classes are activity and task oriented. Our Music/Dance class for first-year Core students focuses on dance and rhythm, which can be easily demonstrated and imitated. There are also two Immersion classes per week for all Core students in Humanities and Music Activities. We teach geography and the culture of Africa or Asia in French, (in conjunction with the African or Asian curriculum of our regular Humanities program), using hands-on activities. In the Musical Activities portion of the Immersion class, students study composers and the instruments of the orchestra.

# Humanities

*Know then thyself, presume not God to scan,  
The proper study of mankind is man.*  
—Alexander Pope

All students at Waring spend a substantial part of the week in Humanities class. What is considered "Humanities"? Anything which falls within the sphere of human activity. In practical terms we focus our studies on what humans of the past have written, how they have lived, and what they have done. In conventional terms, this means that we spend most of our time studying literature and history. However, our mission also includes, in varying quantities, philosophy, art and music history, comparative religions, anthropology, mythology, cultural history, and, in certain courses, the history of science.

In Core and Group 1, the overall department goal is for students to learn the skills needed to study Humanities in more depth as they grow older: how to critique literature, how to discuss history, how to explore the myriad questions that human behavior can elicit. This year's course for Core is centered on the history and cultures of India and China. The theme for Group 1 is American history, literature and current events. Groups 2-3 will study Medieval Europe and Groups 4-5 will study the Classical World.

Through these studies, we hope to gain a better understanding of who we are and where we come from: as 21st century humans, as members of the Waring School, as members of all sorts of sub-groups, and as individuals. Such an understanding seems the proper end to a course of study called Humanities.

## **Some Guidelines and Standards for Students Working at the Honors Level in Humanities**

### 1. Preparation for class

Read homework assignments actively. Take useful notes in the margins of your readings. Look closely at the text, subtext and context of our historical readings. Think like a student and lover of literature: notice beauty, the characteristics of language, literary allusions. Make useful connections between the text you are reading and other texts you have studied. Write substantive and well-crafted notecards, essays and research projects. Present your work carefully and on time.

### 2. Class participation

Show leadership in class participation. Speak regularly in discussion. Listen actively and engage respectfully with your fellow learners. Take thorough and useful notes during classroom discussions. Demonstrate that you know the facts of the course, that you are on top of the material we are studying. Know specifics, and be able to connect the details to some larger theme. You can demonstrate your knowledge during classroom discussions, in notecards, essays and visuals, and on tests. Be punctual and present for class.

### 3. Growth in skill and understanding as a Humanities student

Show development of skill in reading, writing, and speaking about the texts we study. Admit to your own weaknesses, and pursue help where necessary with both your writing, and your reading. Show increasing ability to synthesize different strands of learning by linking literature, history, philosophy, the arts, and culture. Write in a structured way, organizing notecards into paragraphs, using the essay form for extended notecards, developing your skill as an essayist. Use proper spelling, punctuation and grammar in your writing, including an accepted citation format for quotations.

#### 4. Public demonstration of leadership

Make a noticeable effort to bring Humanities into contact with the world outside the classroom, and vice-versa. Read the newspaper and connect current events to events we are studying in the classroom. In whatever way presents itself, show Humanities discussion skills in settings outside as well as inside the classroom. When we meet in a large group or divide into small groups, act as a leader. Volunteer to complete short projects or to research questions that arise during class discussion or out of your own reading. As appropriate, participate in all-school meetings that bring the topics of our class to a wider audience.

#### **Core Africa** (Not offered 2018-2019)

We begin our year by studying African culture and history. Our first unit is on storytelling and oral culture. We continue by reading *The Dark Child* by Camara Laye and by studying topics in the history of West Africa, including the slave trade. We study colonialism, and do a simulation about the Belgian Congo. After winter break, we read *Cry the Beloved Country* by Alan Paton and do an overview of South African history, which we follow with Harper Lee's *To Kill a Mockingbird* and a look at racial issues in the United States. We end with a unit on Ancient Egypt, reading *Akhenaten* by Naguib Mahfouz. Throughout the year we also read and discuss short stories, some by well-known Western writers and others by African writers from various countries.

Core students also memorize poetry each week. The poems we choose often connect to the topics we are studying and are another way by which we hope to help students expand their vocabulary as well as increase their appreciation of poetic language.

Finally, in the spring, students also undertake a long-term project on the towns they live in, which allows them to begin learning how to conduct primary and secondary research and manage a multi-phase project.

In order to receive Credit, students must complete their daily homework and long-term projects satisfactorily, keep up with reading assignments, participate in class activities, and show evidence of growth in the skills we have targeted.

The Core Humanities program is ambitious and demanding. We assign regular homework and give periodic tests and quizzes. We develop skills in reading, discussion, notetaking and test taking. We assign several essays and work with students to help them organize their thoughts and write in a structured way. We also plan trips and develop projects in an effort to involve students personally in their study as much as possible. We rely upon the support and involvement of parents, and we value the trust that parents place in us to guide their children.

*Yasmine Fraser, Brendan Pelsue*

#### **Core India/China**

We will begin our year by studying Indian culture and history. We will read Indian literature from several sources, including a modern prose version of the *Ramayana* and selected short stories by Indian writers such as Rabindranath Tagore, Jhumpa Lahiri, Salman Rushdie, and Chitra Banerjee Divakaruni. We will practice note-taking by listening to several Indian history lectures and we will undertake a simulation of the negotiations that took place regarding India's partition into India and Pakistan at Independence in 1947. Over the course of this semester and next, we will also memorize several poems in order to deepen our understanding of poetry and poetic forms. During the second semester we will study Chinese history and culture. We will read *The Good Earth* by Pearl Buck, short stories by Ha Jin, and a modern novel. We will use *China's Later Dynasties* by Suzanne

Strauss to study Chinese history, and we will visit the Yin Yu Tang House at the Peabody Essex Museum.

In the spring, students will complete a multi-step project on an immigrant family member or close friend. This project involves both primary and secondary research. Each week students write up their findings, and they conclude the project by collecting their research in booklet form. The unit will culminate with an immigrant celebration where the students present their projects.

In order to receive Credit, students must complete their daily homework and long-term projects satisfactorily, keep up with reading assignments, participate in class activities and show evidence of growth in the skills we have targeted.

The Core Humanities program is ambitious and demanding. We assign regular homework and give periodic tests and quizzes. We develop skills in reading, discussion, note taking and test taking. We assign several essays and work with students to help them organize their thoughts and write in a structured way. We also plan trips and develop projects in an effort to involve students personally in their study as much as possible. We rely upon the support and involvement of parents, and we value the trust that parents place in us to guide their children.

*Yasmine Fraser, Brendan Pelsue*

### **Group 1 Humanities: 2018-2019**

Group 1 Humanities will spend much of the year studying American history, literature, civics, and current events. Building on Henry David Thoreau's quote that "it is the province of the historian to find out, not what was, but what is," we will study key events in American history in order to more fully understand America in 2018. In the fall, we will study the midterm elections, particularly the ballot questions in Massachusetts, the gubernatorial race, and Congressional races in swing states and districts.

In terms of skills, we will work on listening, discussing, developing vocabulary, note taking, analyzing text, expository writing, researching, and learning how to create a podcast. The summer reading was *When the Emperor Was Divine* by Julie Otsuka, and we are currently reading the U.S. Constitution. Future works under consideration this year include: *The Declaration of Independence*, *The Narrative of the Life of Frederick Douglass*, *Incidents in the Life of Slave Girl* by Harriet Jacobs, *A Raisin in the Sun* by Lorraine Hansberry, and selections from the Old and New Testaments.

Students are expected to write regularly about history and literature, to participate in class by speaking and taking notes, to write essays, and to pass quizzes and tests. Expanding our vocabulary will be a priority, with words coming from our conversations and readings. We hope to have good conversations, to take risks, and to have fun together. We also hope to take a few literal journeys. In many ways, we hope to make connections between the course and our lives. We have an idea of where we are going, but are most open to where the course takes us.

*Jim Watras, Josh Webb*

### **Group 2-3 Medieval Course**

We hope to weave together two strands over the course of the year. First, we will study the three "Abrahamic" faiths: Judaism, Christianity and Islam. We will study the sacred texts, the history, the rituals and the mysteries of each of these religious traditions. We hope to meet with and learn from different religious communities on the North Shore and

in the Boston area. Second, we will study European history and literature from the declining Roman Empire through the Renaissance.

While reading medieval literature and studying medieval art, we will discuss themes such as the sacred, conversion experiences, the hero journey, pilgrimage, and humanism. We will study historical topics including the Norman Conquest of England, the Crusades, the Plague, and the emergence of the modern world.

At the beginning of the year we discussed *I Am Malala*, and excerpts from *A Short History of Myth* by Karen Armstrong. Our next text will be Robert Alter's translation of *Genesis*. Additional texts may include *Beowulf*, *Sir Gawain and the Green Knight*, *The Canterbury Tales*, and *The Inferno*. We will also read excerpts from *The Woman Who Named God* by Charlotte Gordon, *The Middle Ages* by Morris Bishop, and *A Distant Mirror* by Barbara Tuchman. We plan to conclude the course with a contemporary novel or nonfiction work that reflects on themes from the year.

The trip to Angers, France in March will provide Group 2 students with experiences that will make the Medieval and Renaissance periods come alive. We may visit the Medieval Museum of Cluny in Paris, the Italian Renaissance paintings in the Louvre, Medieval cathedrals in Paris and Angers, the chateau at Angers (with its world famous 14th century Apocalypse Tapestry), and Renaissance chateaux in the Loire Valley.

*Joshua Scott-Fishburn, Jim Watras, Josh Webb*

### **Group 2-3 Modern Europe** (Not offered 2018-2019)

This course focuses on the history, culture, arts and literature of Modern Europe from the Reformation to the present day. We look at the meaning of European identity over the centuries, paying particular attention to the theme of modernity, and asking: "What is 'the modern'?" Using a mix of primary source texts, works of literature, essays, and historical commentary we study such topics as the Reformation and Elizabethan England, the Enlightenment and the French Revolution, Romanticism and the Industrial Era, World War I and Modernism, World War II and the Holocaust, and Europe today. We frequently study the arts, especially painting and music, to help us understand the worldview of a particular era.

The trip to Angers, France in March will provide Group 2 students with experiences that will make the period of the World Wars come alive. Students will visit a WWI battlefield in Vimy, and the D-Day beaches in Normandy.

We read *The Plague* by Albert Camus over the summer and will read *Hamlet* by William Shakespeare as our first major work of literature. Among other works under consideration are *Candide*, *Jane Eyre*, *All Quiet on the Western Front*, and *Night*.

### **Group 4-5 Classical Studies**

The Classical course looks at the history and literature of Ancient Greece and Rome, asking questions including "What role does transformation play in mythology and in our lives?" and "What is the difference between polis and empire?" The course begins with an overview of Greek mythology and a discussion of Karen Armstrong's *A Short History of Myth*. We read selections from three epic poems: *The Iliad* and *Odyssey* of Homer, and *The Aeneid* of Virgil. We will consider the nature of mythology, the need for self-transcendence, the nature of the sacred, the rise of the *polis*, and the development of Athenian and Spartan forms of government (and, of course, their conflicting worldviews). We will also study a bit of Greek philosophy and a bit more of Greek drama. We plan to read a classical play and examine the great Greek historians on the Persian and Peloponnesian wars. We will study institutions of the Roman Republic, concepts of virtue and family, city planning, the Punic Wars, the careers of Julius Caesar and Augustus, the roots of Christianity, and the transition from pagan to Christian empire. Throughout the

year we will frequently include art and architecture in our studies, always aiming to understand the ongoing influence of the Classical World on our lives. Authors may include Homer, Sappho, Herodotus, Thucydides, Plato, Aristotle, Euripides, Sophocles, Aristophanes, Virgil, Livy, Ovid (Ted Hughes translation), Horace, and others. In addition, as always, we will try to understand our own time and ourselves (and especially our process of democracy) in relation to their Classical roots. Students will complete a major research project in the second semester.

*Gallaudet Howard, Kyra Morris, Charles Newman*

#### **Group 4-5 American Studies** (Not offered 2018-2019)

This year's Humanities class combines a chronological and experiential study of American history, literature, and culture. We are making continual references to contemporary American history and culture as we uncover and research historical precedents for current events. We are asking students to explore the question: "Who are we as Americans and how did we get this way?" We are examining regional differences in the United States, both past and present, through reading Colin Woodward's *American Nations*. We are also discussing the history of race in North America and examining the history of slavery, the era of *de jure* segregation, the Civil Rights movement, and the ways our local community provides for the needs of the elderly, differently abled, income-challenged, English language learners, and children, especially the children of working families. We are also committed to increasing our fluency in the ways our conception of American culture is changed by the non-American members of our own classroom community.

Over the summer, students read Colson Whitehead's *Underground Railroad*. Students who want to work at the Honors level also read other novels including *Love Medicine*, *East of Eden*, *Death Comes For The Archbishop*, *The Scarlet Letter*, *As I Lay Dying*, and *Fools Crow*. Other authors under consideration include: Winthrop, Bradstreet, Franklin, Jefferson, Irving, Jacobs, Thoreau, Douglass, Melville, Whitman, Dickinson, Wharton, Henry James, O'Connor, Welty, Cather, Gilman, Faulkner, Hurston, Morrison, Hughes, Eliot, Frost, Miller, Kushner, Coates, and Mbue. We also hope to make good use of film and music.

We are conducting Sustained Sociological Research (SSR) into various historical and contemporary issues in America by working with people across different sociological demographics in our local community. Each week we work with various social service organizations in the Beverly area including Pathways for Children Headstart Program, ESOL for immigrant language learners at Project Bootstraps, the Kevin O'Grady school at the North Shore Special Needs Consortium, affordable housing initiatives through Harborlight Partners, public education at the Centerville Elementary School, and Waring School itself, through work with the admissions office and school newspaper. Students will form relationships in these venues over 10 weeks of the fall semester while engaging in service opportunities that include providing programming assistance and curriculum development. Simultaneously, they will research the history of the organizations they are interacting with, including policy decisions that have shaped (and been shaped by) U.S. history and culture.

## Science

The science curriculum is designed to foster curiosity for and understanding of the natural world. Science at Waring is taught through participatory lecture, reading, discussion, demonstrations, first-hand observation, use of online databases and programs, field trips, and guest speakers. Throughout the curriculum we emphasize developing the skills of data collecting, keeping a notebook, scientific writing and communication, researching, making presentations, and collaborating with peers. The content of our courses follows a traditional trajectory (see below) in which the major concepts and paradigms of each discipline are taught. The students learn the skills of observation and computation as well as their extension to models and theories. We connect scientific concepts to contemporary social and political issues as appropriate, particularly relevant environmental issues. These content goals and pedagogical approaches unify the science curriculum across the 7 years that a student is in the program. Students exit the program as scientifically literate and responsible citizens, prepared for future academic and professional careers in the sciences.

Sources used include science journals, newspapers, area lecture series, the internet and traditional textbooks. Core Science alternates each year between a study of physical and biological science and is a prelude to the secondary school program. The following years are: Group 1: Earth Science of New England and STEM (one semester each); Group 2: Biology; Group 3: Chemistry; Group 4: Physics; Group 5: Anatomy and Physiology or Earth Systems and the Environment

To earn Credit in all science courses, students must keep up with assigned homework and demonstrate proficiency in written work, class participation, assessments, laboratory experiments and projects. Students are expected to come to class on time and be prepared. More than six late or missed assignments per semester are grounds for No Credit in a course. Students in groups 3 and up are eligible to take courses for Credit at the Honors level. In order to earn this distinction, a student must meet all the requirements for Credit in the course, as well as excel in written work and problem solving, perform well on assessments and projects, and take a leadership role in meeting course goals.

### **Core: Physical Science (2018-19)**

Core Science follows a two-year cycle alternating between life sciences and physical science; (Biological Science will be offered next in 2019-20). Core Physical Science focuses on three major concepts: motion, forces, and energy. Within each concept we introduce the students to related topics - statics, simple machines, buoyancy, electricity and magnetism, to name a few - through labs, films, demonstrations, and other hands-on activities. Each unit will culminate in a larger project in which the students will have an opportunity to demonstrate their understanding of the principles we've been studying in a creative way. The course is supported by Prentice Hall's text entitled *Science Explorer: Motion, Forces, and Energy*.

*Cory Grant, Rich Stomberg, Edith Fouser*

### **Core: Biological Science (Not offered 2018-2019)**

The Biological Science year stresses the development of basic science skills. While studying selected topics in biology and ecology, students learn skills such as data collection, use of a microscope, graphing and interpretation of data, independent research, experimental design, lab report writing, note-taking and test-taking. In addition, students hone their communication skills by presenting their work to the class at frequent intervals. We give special focus to the biology and basic ecology of Africa (to integrate with the Core Humanities study of Africa) and our local environment. The year also includes an extended look at the Protist and Plant kingdoms.

Textbooks supporting the life sciences course are *Wild Africa—Exploring the African Habitats*, and Prentice Hall’s *Science Explorer: From Bacteria to Plants*.

In addition to subject content, a major goal of Core Science is to help students develop the basic skills necessary to participate in scientific study. These skills include how to observe and ask questions, how to measure and analyze data, and how to use basic laboratory equipment. Mathematics and technology are regularly integrated into the class work and homework assignments. Students learn to keep good notes in an organized scientific notebook and have ample opportunity and support to improve test-taking skills, prepare presentations, summarize and communicate conceptual understanding in writing, and analyze data collected from long-term projects.

Credit is based on class participation, the timeliness and quality of homework, quiz and test scores, and the neatness and completeness of a student's notebook. Required materials: hardcover bound notebook devoted exclusively to science class, folder or binder to keep hand-outs and returned quizzes/tests, metric ruler, graph paper, calculator, pen/pencil, and eraser.

### **Group One: Earth Science of New England (Fall/Spring Semester)**

Introduction to the Geology of New England is a one-semester class that will be offered to Group 1 in both the fall and spring semester of the year. The class will meet five periods per week, including one double-period lab and three classroom/discussion periods. In the context of the broad study of earth science, this course will focus on the unique geology of New England from the Appalachian Mountains to the continental shelf and slope waters of the Gulf of Maine and Georges Bank. The course will begin with an overview of the earth’s place in the solar system and a review of the plate tectonic theory and the crust of the earth. Following this the course will look at the role of ice and the atmosphere in shaping the landscape of the New England we know today: its hills and mountains, its sandy beaches and rocky shores, and the productive nature of its offshore waters. Topics will include some basic chemistry of the three states of matter, the dynamics of sandy beaches, rocks and minerals, mountain building and the oceanography of the Gulf of Maine. All these topics will be connected by fundamental concepts in all science such as convection, density, pressure gradients and related fluid dynamics of air and water. We will explore these topics through readings in our textbook (Lutgens & Tarbuck’s *Earth Science*), and other readings on the oceanography of the Gulf of Maine, the geology of Cape Cod and the Appalachian Mountains. Films and animations will also be studied throughout the year. Lab work will hone observational skills and practice of the scientific method; spreadsheet software will be used as tools to organize and make sense of data. Field trips will provide the opportunity to see glacial features around the North Shore and human impact on New England’s natural resources will be considered throughout the course.

**Credit requirements:** all written work complete, thoughtful class participation, successful performance on tests, continued progress on writing lab reports and completing a research paper on New England’s Natural Science and poster presentation.

*John Wigglesworth*

### **Group One: STEM (Fall/Spring Semester)**

This year Waring is excited to offer a new type of class to Group 1. The overall purpose of this course is to allow students to work collaboratively on open-ended projects that use technology-based techniques. These projects allow students to work on collaboration, iteration, documentation and presentation. As the students work on the projects, they learn new technical skills. As this is a new course, we are currently unsure how many projects we will work on; however, we are beginning with The Balloon Car project in which



students use 3D modeling software and 3D printers to design and then print the parts for a car powered by a balloon. Other planned projects will use molding and casting in silicone, metal wire-work, Arduino programming, and basic electronics.

The course is set up to emphasize a design-build process in which small teams create a design, refine it, test elements, redesign and retest iteratively, until the project reaches its final form. The students document this process and present their work to the whole class. Each group creates an ongoing record of their work including pictures, programs, and written reflections on what they did with a given period, why, and what they plan to do in the next class. These documentation/reflection pieces will be shared in presentations.

Individual evaluation in this class will be based on the quality of documentation, presentations, and products along with a student's ability to work productively in a group.

*Francis Schaeffer*

### **Group 2: Biology**

The biology course stresses the importance of careful observation and note-taking and the use of scientific principles and techniques in the exploration of the living world. The class uses the text (*Biology, 2010 ed.*, by Miller & Levine) as our backbone, following a path that surveys all of the major topics in Biology. We begin the year by studying basic chemistry and the cell at the same time becoming comfortable with one of the most important tools to a biologist—the microscope. We move from studying the cell to learning about the processes that are important to living things such as cellular respiration, photosynthesis, and protein synthesis. The unit that follows delves into the complexities of genetics and we focus on cancer as a model for understanding many of the mechanisms of genetic control and the effects of genetic mutations on cells and whole organisms. We study the theory of evolution by considering the contributions from a variety of scientific disciplines. We study taxonomy and do a student-driven survey of the six kingdoms with a concentration on the Plant and Animal Kingdoms. The final portion of the class is devoted to human anatomy and physiology.

In France during their one-month homestay students follow a curriculum designed to further their work in the class while at the same time taking advantage of the local resources available to them in Angers.

We incorporate hands-on activities regularly and have one double period every week for extended learning opportunities and labs.

Credit is based on satisfactory completion of the course and requires completion of readings and homework assignments, satisfactory results on quizzes and tests and active participation in all classroom activities and discussions.

*Rich Stomberg*

### **Group 3: Chemistry**

Group 3 Science will study basic principles of chemistry. This course will give students a foundational understanding of matter that is essential for other scientific disciplines like physics, human anatomy and environmental science. We begin with an introduction to data collection techniques, and review the math and handling of units needed for problem solving in chemistry. We then delve into the atom, and proceed to study electron configuration, chemical bonding, chemical reactions, chemical nomenclature, stoichiometry, solution chemistry, gases, thermochemistry, kinetics, and acid/base chemistry. Data collection and exposure to the chemical concepts through weekly

laboratory experiences are a priority. Laboratory skills are introduced and students practice utilizing these skills through their own experiment design, often in follow-up experiments. Whenever possible, connections are made between our coursework and to other disciplines and to the world around us. In addition to laboratory teams, hands on activities and group work is used in class through project and guided-inquiry activities.

Our primary textbooks for this class is *General Chemistry: The Essential Concepts* by Chang and Overby. Laboratory resources are *Laboratory Experiments for World of Chemistry*, Zumdahl, Zumdahl, DeCoste

*Credit* in this course requires that students demonstrate proficiency on all written work; that they participate actively in class discussions and activities; that assignments are complete and submitted on time. *Credit at the honors level* requires excellence on all problem sets and tests; active participation in class and ownership of the learning that we are doing together; neat, detailed and thoroughly written lab work. All students are expected to come to class on time, be prepared, and remain engaged. As usual, more than six late or missed assignments per semester are grounds for No Credit.

Tim Te

#### **Group 4: Physics**

In Physics we study the most fundamental concepts in our understanding of nature—motion, forces, energy, and matter. *The physics course is offered in two sections which take different approaches to the same material. One course is more mathematically demanding than the other.*

Physics (mathematical approach) has a particular focus on the mathematical relationships between these concepts. We work to develop a conceptual understanding of physical phenomena and describe these in the language of mathematics. As part of this effort we learn to apply the mathematical models of physics to solve quantitative problems. Our class involves formal lab experiments, informal activities and demonstrations, lectures and discussions, and steady practice with problem solving. Over the course of the year we study the mechanics of linear and rotating systems, sound and other wave phenomena, electricity and magnetism, and optics. Our primary textbook for this class is *Physics: Principles with Applications* by Douglas Giancoli.

To receive Credit in this course, students must maintain at least a 70% average on the credit-level scored problem sets, pass the credit-level tests, perform well on labs, and consistently participate in class. Students who are working at the Honors level must demonstrate a strong command of the material as well as deep and serious engagement with the class. Students working at the Honors level will be given different, more challenging problems on their scored problem sets and tests. In the past students have needed to achieve an 85% average on the problem sets to pass the honors offering of the course, however, sometimes this is lowered depending on how the whole class is doing. Besides performing well on the more difficult homework and tests, they must show diligence, thoroughness, and excellence in all their written work, and they must be strong and active participants in class.

Physics (conceptual approach) – the same fundamental physics concepts are studied in this class. Students will see that simple principles lie behind a wide range of phenomena that they can explore. Students will have the opportunity to develop a conceptual understanding of these principles by working with concrete, hands-on activities paired with classroom discussions, demonstrations, and on-line simulations. Students will develop intuitions about the way the world works and correct their mis-intuitions or misconceptions as they attempt to explain and understand what they see. Students will explore and identify the fundamental principles acting in our physical world and learn to model them

mathematically. Students will then learn to explain other phenomena in terms of the fundamental physics principles and to test their ideas. Comprehension will be assessed with homework sets, laboratory and project reports, and regular concept tests. Our primary textbook for this class is *Physics: Principles with Applications* by Douglas Giancoli. We may also supplement this text with Paul Hewitt's *Conceptual Physics*.

To receive Credit: satisfactory performance on classroom activities, labs, quizzes and tests; interest and involvement in classroom activities, discussions, labs, and projects are essential to this class. To receive Credit with Honors: Students must demonstrate a strong command of the material as well as a deep and serious engagement with the class. Credit requirements plus consistently above-average homework, test scores, and lab project summaries with an 85% average are necessary. Students taking the course at the Honors level will generally be asked to take Honors level tests and problem sets.

*Francis Schaeffer*

### **Group 5: Anatomy and Physiology**

Anatomy and Physiology is a full year laboratory-based course that will take a second deeper look into some of the Biology concepts covered in Group 2 science. This course will have two areas of focus: anatomical features of the human body and its function or disfunction. The course will begin with an introduction to anatomical terminology, and a more in-depth look at biochemistry, cell biology, and types of body tissues. The class will continue by focussing on one human body system at a time. Systems under study will include integumentary, skeletomuscular system, nervous system, endocrine system, cardiovascular system, respiratory system, digestive system, excretory system, and reproductive system. This course will also include laboratory activities which may include the use of cadaverous animal models.

During spring semester, students will select a topic to study and design and perform their own independent research. The final product will be a research notebook, research paper, and poster presentation. In preparation for this project, the fall semester will focus on introducing the skills needed for designing and performing thoughtful and informative laboratory experiments, collecting and managing data, and capably presenting results.

Our primary textbook is *Essentials of Human Anatomy and Physiology 12th edition*, by Marieb and Jackson. Laboratory resources include *Essentials of Human Anatomy and Physiology Laboratory Manual 7th edition*, by Marieb and Jackson

Credit in this course requires that students demonstrate proficiency on all written work, that they participate actively in class discussions and activities and that assignments are complete and submitted on time. During the spring semester, all students will complete an independent laboratory research project, write a research paper and present a poster of their work. Credit at the honors level requires demonstration of superior understanding and care in all written work, quizzes and tests, active participation in class and ownership of the learning that we are doing together, neat, detailed and thoroughly written lab work and a paper and poster presentation that demonstrate thoughtful observation, questioning, curiosity, and thorough research. All students are expected to come to class on time, be prepared, and remain engaged. More than six late or missed assignments per semester are grounds for No Credit.

*Tim Te*

### **Group 5: Earth and the Environment**

Earth and the Environment is a capstone course in the science program that gives students the opportunity to apply their interests in science to develop a deeper understanding of

how terrestrial, oceanic and atmospheric systems interact and the role they play in the global climate. Chosen interest will be developed through the year, culminating in an Earth Systems Research (ESR) project and poster presentation given in a Science Fair at the end of the academic year. Lab work will be in the field and or based on the chosen research project. While all projects must be grounded in at least one area of the natural sciences, students who are interested in human impact on the environment and related social, political and economic issues may develop that interest as well. To provide context for understanding the Earth Systems as a whole, model systems of the Oceanography of the Gulf of Maine, the Gulf of Maine watershed and the Atlantic and Arctic Ocean will be studied in detail. Fieldwork for the course will take place at Maritime Gloucester, where data for marine science projects can be collected. Types of data include marine debris analysis, plankton studies, water quality analysis, sediment studies, lobster life cycles and sea level rise. Throughout the year the class will be based on participatory lectures, field trips and associated activities. Presentations will be given by visiting research scientists and professionals active in the field. Readings from selected texts and journal articles will be assigned throughout the semester.

Performance in the class will be evaluated, in part, on the basis of tests, short writing pieces and the independent research project. Credit in the class requires that students demonstrate proficiency on all written work and that they participate actively in class discussions, lab activities and field trips. Credit at the honors level requires excellence on all written work, active participation in class, and ownership and leadership of the learning that we are doing together. All students will do a research paper and related presentation.

Textbook: ***Essentials of Oceanography (11<sup>th</sup> edition)*** by Allan P. Trujillo and Harold V. Thurman. ***Oceanography of the Gulf of Maine***. Spencer Apollonio.

*John Wigglesworth*

## French

Students at Waring spend up to seven years studying French. There are some goals which we hold for all students: we want them to feel comfortable using French both orally and in writing; we want them to be surrounded by French in the school; we want them to become curious about French and Francophone cultures. During their time at Waring, each student moves at his or her own pace in progressing toward our overall goals. French classes are grouped into two large groups: Core and Groups 1-5. Within these, we subdivide classes into smaller groups of students according to skill and ability.

Gradually students learn to speak and write about their lives and the topics and literature they study. We teach them to read with the goal of being able to read in French on their own for pleasure. We discourage translation and introduce them to simple texts from which they learn to handle more and more challenging works. In school, we try to surround students with French both in and outside of the classroom. Students and teachers speak to each other in French as often as possible. We regularly conduct all-school meetings in French, have French announcements, publish French writing in *Le Temps Retrouvé*, and present French skits or plays. Students will also participate in the annual *Concours de Poésie* in which they memorize and recite a French poem and compete with other students.

We integrate Francophone culture with our program by encouraging contact with France and Québec. Since the fall of 1999, we have taken Group Two to Angers, France, for an immersive homestay/school experience each year. This year, three French teachers and 28 French 9th graders will spend three weeks in October and November on the Waring campus. They will stay with Waring 9th graders, who will in their turn go to Angers for four weeks in March. This program is one of the mainstays of our curriculum and actively promotes French fluency and cultural awareness. We also often offer our students the opportunity to go to Québec. We encourage students to travel and do exchanges with French students in the summer or during the school year, as well as to watch French films, listen to French music, and read online French magazines and newspapers.

When students leave Waring School, we hope that French will have become an important part of their lives on which they can build a language and culture which they have grown to love and understand and which they will never lose.

### **Honors Levels (Groups 3-5):**

Students taking French courses at the Honors level are asked to consistently perform tasks at a higher level of proficiency and sophistication, typically at the levels Intermediate III and above. Occasionally, students may take an Intermediate II course at an Honors level if they have already skipped a level and/or if their performance and contributions are excellent. This will be brought before the French department on a case by case basis.

To challenge students taking a course at the Honors level, the teacher will provide alternative expectations, individualized assignments, and / or evaluations. In all cases, students will be expected to contribute to the class fully and positively and act as a role model striving to excel.

A student wishing to take a course at the Honors level must be invited to request such special status by his/her teacher by mid to late October.

After the student and teacher have discussed the Honors course parameters and agreed upon them, the candidate for Honors will sign a contract / calendar written by his/ her teacher. By the end of October at the latest, the student's status must be confirmed by the teacher's assessment of the student's performance and attitude. At this time, a student not meeting the Honors expectations will only be eligible for Credit at the end of the semester. A similar calendar and set of rules will apply for the second semester.

## **Core Débutants I**

Students in these classes have very little or no previous knowledge of French. Until January, their classes do not use written language. Classes are conducted entirely in French and students are given useful, everyday language contexts in which to understand and use the language. Students learn to talk about the weather, their likes and dislikes, their families, their homes. Nightly homework assignments require students to record sentences and conversations, which they have practiced in class. They should record for a minimum of 2 minutes each evening following their French class. After the transition to written French, students receive regular written assignments.

The topics covered in classroom conversation parallel the progress of the textbook, *Adomania*, which is used starting in January. At that time students review the same topics and structures covered in the fall, using the textbook, so that the transition to written language can be made smoothly. At every level we guide them in conversation. We ask them to listen to and act out skits and scenes, memorize poetry, read simple texts in French and begin writing and reading.

In order to receive Credit for the first semester, students must complete their homework (an audio recording for every day French class meets: Monday through Thursday), participate actively and appropriately in class conversations and show evidence of growth in their ability to use oral French. Students need to make sure that their attendance and punctuality are in good standing.

In order to receive Credit in the second semester, students must complete their daily homework, listen attentively, participate actively and appropriately in class, and show evidence of growth in their ability to use oral and written French. Students need to come to class on time and prepared.

Required material: A computer or phone enabled to make voice recordings.

*Maureen Gedney, Christiane Jedryka-Taylor*

## **Core Débutants II**

This second-year French class aims at consolidating the gains from the prior year. During the course of the year, students increase the fluency and sophistication of their spoken French and make progress in their ability to write and read efficiently. We emphasize oral French through role-plays, conversations, songs, talking about pictures, and excerpts of films.

We begin with a review of basic grammatical concepts using magazines and the new textbook, *Zénith 1*. New concepts include the use of most common irregular verbs, the immediate future, and past tenses. We learn about various Francophone countries, regions of France, and major landmarks in Paris. We also look at contemporary French family life.

In order to receive Credit, students must complete their daily homework, listen attentively, participate actively and appropriately in class, and show evidence of growth in their ability to use oral and written French. Students need to come to class on time and prepared.

*Anna Marie Smith*

## **Immersion Humanities**

The French Immersion Humanities and Musical Activities course is broken into three rotating modules. The course covers numbers and the metric system, general geographical concepts, Indian and Chinese geography and culture, and classical music.

At the start of the course, our main focus is on becoming comfortable using French numbers and the metric system. Farther into the trimester, we devote most of our time to geography, looking at geographical terms, latitude and longitude, seasons, climate, and physical features. We examine the political map and physical maps of India and China, all in French, complementing the regular Humanities curriculum. The culture component looks at family life, belief systems, and holidays and festivals. All students should have colored pencils. A French atlas will be supplied.

We also spend one trimester focusing on classical music, again entirely in French. This is an enrichment experience which draws upon students' sensory and emotional responses to music listening and uses visuals to explore music history through the study of composers and instruments.

In order to receive Credit, students must complete their homework, listen attentively, participate actively in class using French appropriate to their level, and show mastery of the content of the course. Students need to come to class on time and prepared.

*Maureen Gedney, Yasmine Fraser, Anna Marie Smith*

### **Débutants I**

Students in this class have little to no previous knowledge of French. Until January, their classes do not use written language. Classes are conducted entirely in French and students are given a useful context in which to understand and use the spoken language. Students learn to talk about their families, their homes, the weather, activities, food and drink, and their likes and dislikes. Nightly homework assignments require students to record sentences and conversations which they have practiced in class. They record every evening, following their French class, and email the recording to their teacher. After the transition to written French, students receive regular written assignments, though recordings may still be used, often to practice reading aloud.

The topics covered in classroom conversation parallel the progress of the textbook, *Adomania*, which is used starting in January. At that time students review the same topics and structures covered in the fall, using the textbook, so that the transition to written language can be made smoothly. At every level, we guide them in conversation. We ask them to listen to and act out skits and scenes, memorize poetry, read simple texts in French and begin writing and reading.

In order to receive Credit, students must complete their homework (audio recording) every day that French class meets (Monday through Thursday), and participate actively and appropriately in class conversation. They must also show evidence of growth in their ability to use spoken French, and, in the second semester, written French. Students need to make sure that their attendance and punctuality are in good standing.

Required material: A computer enabled to make voice recordings.

*Yasmine Fraser*

### **Débutants II**

This second-year French class aims at consolidating the gains from the prior year. During the course of the year, students increase the fluency and sophistication of their spoken French and make progress in their ability to write and read efficiently. Emphasis is placed

on oral French through role-play, conversations, games, songs, talking about pictures, and excerpts of films.

We begin with a review of basic grammatical concepts using our textbook, *Zénith 1*. New concepts include the use of most common irregular verbs, the immediate future, and past tenses. We learn about various Francophone countries, regions of France, and major landmarks in Paris. We also look at contemporary French family life.

In order to receive Credit, students must complete their daily homework, listen attentively, participate actively and appropriately in class, and show evidence of growth in their ability to use oral and written French. Students need to come to class on time and prepared.

*Anna Marie Smith, Brendan Pelsue*

### **Intermédiaires I**

This class moves from the relatively simple beginner level to increasingly complex grammar and vocabulary. Classes are conducted in French and students are expected to improve in their ability to speak and write accurately. This level of French focuses on everyday conversations in francophone countries (in the home, at school, at the hotel, at the cinema, etc.), on new cultures, and on writing short but accurate paragraphs. The aim is to build concrete vocabulary and a command of the basic verb tenses. Some of the important grammatical topics will be the study of gender rules, pronoun usage, a more in-depth review of the *passé composé*, and learning the *imparfait* and the future tense.

Video segments are used as well as contemporary documents and popular music. As the year progresses, students begin to read more challenging texts such as folktales, abridged versions of classical stories by French writers, current events articles, Jean de la Fontaine's *Fables* and *Le petit Nicolas* as a way to help build vocabulary. We will use the *Zénith2* textbook and manual of exercises.

To receive Credit, students must complete their daily homework, participate actively and appropriately in class discussions, and show evidence of growth in their ability to use oral and written French. Students need to make sure that their attendance and punctuality are in good standing.

*Stéphanie Williams, Maureen Gedney*

### **Intermédiaires II**

In this class, students increase the fluency and the sophistication of their spoken French and make significant progress in their ability to read and to write in French. The class is conducted entirely in French. To start off the year on solid ground, we spend part of our time reviewing basic elements of grammar and verb tenses. We learn more about the future and past tenses and how to use the *imparfait* and *passé composé* to narrate an event in the past. We focus on the practical skills needed to carry on everyday conversations in France. This involves building both concrete and abstract vocabulary as well as improving comprehension, pronunciation, and intonation.

Students are expected to bring both their oral and written command of the language to a much higher, more accurate and sophisticated level. They are asked to write regularly and to revise their writing, with an eye toward catching repetitive errors.

We use two main textbooks, *Zénith 2* and *Grammaire progressive du Français*. We regularly use video segments and contemporary cultural readings from a number of sources: current events articles, poems, songs, and later on more challenging literature readings such as *Le Petit Prince* or *Au revoir les enfants*.



In order to receive Credit, students must complete their daily homework, participate actively and appropriately in class discussions, and show evidence of growth in their ability to use oral and written French. Attendance and punctuality must be in good standing.

This course may on occasion be taken at the Honors level as detailed in the department's Honors description.

*Anna Marie Smith, Christiane Jedryka-Taylor*

### **Intermédiaires III**

At this level students need to refine skills they already have and learn more challenging aspects of grammar. They will be asked to produce a great deal of writing, expository and creative, enriching their vocabulary as much as possible. They will go beyond the concrete to discuss abstract topics in culture and literature. Students continue polishing their pronunciation through songs and skits. They work on debating and carrying on abstract conversations as they would in a Humanities class. There will be readings of challenging, unabridged short stories and poems by 19th century authors as well as contemporary ones. We'll look at films, newspaper and magazine articles, ads, clips from the French daily news (TV5), popular songs, and Internet sites to discover the thinking and cultural perspective of not only modern France, but all of Francophonie.

Students are expected to bring their command of the language to a higher, more accurate level. The class is conducted entirely in French, and students have nightly homework assignments. Regular writing assignments, with required revisions, allow the students to improve their ability to express themselves fluently. The emphasis is on developing good habits in speaking and writing, which will serve students throughout their study of French. Students must complete their daily homework, participate actively and appropriately in class discussions, and show evidence of growth in their ability to use oral and written French. They must also make sure that their attendance and punctuality are in good standing.

This class can be taken at an Honors level with teacher approval.

*Matt Taylor*

**Avancés I** (Not offered in 2018-2019)

**Avancés II (AP)** (Not offered in 2018-2019)

### **Séminaire I**

This hybrid course of *Intermediate III (Part 1 and 2)* combines these two levels and challenges each level accordingly. It is a seminar-style class in which students will explore several topics in depth while continuing to refine their grammar skills. In the fall we will read a number of short stories (by Prosper Mérimée, Emile Zola, Alphonse Daudet and others) and also watch some films. From time to time we will split the group in order to work on grammar topics separately with each level, and according to what concepts are presenting particular difficulties for each student as they come up in our reading. There will be regular debate-style discussions, and both shorter and longer written assignments. In the spring we will read a play or a modern novel.

To receive Credit, students must complete their daily homework thoroughly, participate actively and appropriately in class discussions, and show evidence of growth in their ability

to use oral and written French. Students need to make sure that their attendance and punctuality are in good standing.

This course may be taken at the Honors level as detailed in the department's Honors description. An Honors project would be required in each semester.

*Yasmine Fraser*

## **Séminaire II**

This is an advanced seminar-style class in which students will explore several topics in depth. There will be three main themes in addition to a regular current events and writing/grammar workshop component.

This year, the three themes will be: French advertising, French art history from the XIXth century onwards, and short stories.

Students will learn the history of French advertising and how to analyze all formats of advertising from posters, magazines to ads broadcast on the radio, television, and social media. Students will be able to understand what makes an ad, its various visual, musical, and linguistic features.

The unit on art history will deal mostly with the art forms of the XIXth and XXth centuries with emphasis on major schools of paintings. Students will also learn about important photographers and will have the freedom to explore more media on their own.

With *Nouvelles à chutes*, students will discuss a collection of very contemporary short-stories. As the year progresses, the class will study more famous and challenging texts by Maupassant, Colette, and Flaubert.

This is an Honors level course in which students are expected to come to class prepared and positive. At this level, they will produce a great deal of writing, which will be both expository and creative. Students will do regular internet research directly in French and should use French grammar resources such as *La grammaire progressive (Avancé) Le conjugueur or Bescherelle*, and a French dictionary.

*Christiane Jedryka-Taylor*

## Mathematics

Mathematics is a language for understanding our world. Through small classes, interactive lectures, problem-solving, and collaborative learning, Waring students study math content in order to compute fluently, analyze situations, interpret and model the real world, reason clearly, identify patterns and connections, and communicate, both in their written work and during class discussion.

Waring students complete a program of study in college preparatory mathematics, beginning with two years of middle school mathematics in 6th and 7th grade (Core), three years of Intermediate mathematics with an emphasis on algebra and geometry in 8th (Group 1), 9th (Group 2), and 10th (Group 3) grades followed by two years of advanced mathematics with an emphasis on function theory, trigonometry and data analysis in 11th (Group 4) and 12th (Group 5) grades. Advanced students are able to study Calculus at the Advanced Placement level and/or pursue an independent Intensive course in mathematics. All students are expected to take mathematics for all of their years at Waring. Group 5 students who have successfully completed Precalculus, however, may petition for a Senior Intensive in another discipline. Students move through the program at a pace that is based on a thoughtful evaluation of their ability and their learning style.

To earn Credit in all math courses, students must keep up with assigned homework and demonstrate proficiency in written work, class participation, and in-class assessments and projects. When appropriate, students may re-submit their written work or do supplemental problems. Students are expected to come to class on time and be prepared. More than six late or missed assignments per semester are grounds for No Credit in a course. Students in groups 3 and up are eligible to take courses for Credit at the Honors level. In order to earn this distinction, a student must meet all the requirements for Credit in the course, as well as excel in written work and problem-solving, and perform well on assessments and projects, and take a leadership role in meeting course goals.

We also have co-curricular opportunities for students of all ages interested in exploring problem-solving outside the classroom and participating in math competitions. Advanced math students have the opportunity to be Teaching Assistants (TAs) if schedule allows, to assist other students' learning as Math Peer Tutors, and become leaders of the Math Peer Tutor Program or Math Team.

### Core Math 6

This course allows students to further develop their numerical reasoning and algebraic thinking, and also emphasizes the understanding of the arithmetic of rational numbers. Students compute with, apply, and picture decimals, percents, fractions, integers, scientific notation, and powers. Special attention is paid to fractions and negative numbers. There is also an emphasis on dealing with data sets and geometry. The math is used to model real world situations. Variables appear as a way of describing generalizations, as a language for formulas, and as an aid in solving simple equations. Students will use the TI-34 multiview calculator to develop a more robust understanding of the relationships between numbers in decimal, fraction, and scientific notation. The text for this course is the *University of Chicago School Mathematics Project, Pre-Transition Mathematics* (1st edition).

*Cory Grant*

### Core Math 7

This course is a bridge from Arithmetic to Algebra, strengthening mathematical foundations, with a focus on problem solving, deep understanding, representing mathematical ideas visually, numerically, symbolically, in tables, and graphically. We will

investigate real world problems in mathematical ways. It is intended to prepare students for success in an Algebra course in Group 1 (8th grade). Skills covered include scientific notation, graphing inequalities, fractions, decimals and percents, sets, basic plane and solid geometric figures, probability, and solving linear equations and inequalities. The TI-34 multiview calculator will be used occasionally, but the emphasis will be on ensuring that students are secure in number sense and computation, the foundation of math fluency, while becoming confident mathematical thinkers. We will use teacher-selected materials, hands-on investigations, problems and packets.

*Edith Fouser, Julie Nelson*

*Upon successful completion of the Core Math program students will be ready for a full year Algebra course.*

## **Algebra**

This course will explore algebra and the foundational skills needed for secure development of algebra skills, processes, and applications of mathematics. The focus will be on integrating basic skills, concepts, and applications of mathematics so that the student can make connections between the classroom and real-world use of mathematics in everyday life. Students explore topics such as linear relationships, the language of logic, probability, and data analysis. The course emphasizes building computational fluency and number sense. Applications motivate all topics, and there is an emphasis on reading and writing math, use of manipulatives, and modeling and solving problems. Expressions, equations, and functions are described graphically, symbolically, and in tables. A TI 84 family graphing calculator is required, and students are expected to have access to the internet at home. Resources for this course are: *The University of Chicago School Mathematics Project, Algebra (3rd edition)*; *Khan Academy mission Algebra Basics*; *Algebra Success (5th edition)* published by Learning Express; and teacher-developed *Refresher Skills*.

*John Ferrick, Anton Fleissner*

## **Integrated Geometry**

This course focuses on Geometry while also incorporating topics from Algebra as time permits. This integrated approach will allow for continuity of our program and foster student understanding of algebraic reasoning, mathematical arguments, spatial reasoning and geometric relationships. We will use transformations for definitions of congruence, similarity, and symmetry with a focus on triangles, quadrilaterals and circles. An introduction to right-triangle trigonometry in the spring will include opportunities for field projects. Algebra will continue to be integrated with Geometry in our discussion of the coordinate plane and Pythagorean theorem. We will also study perimeter, area, surface area, and volume in two-dimensional and three-dimensional figures. We will introduce Proof as a tool to develop students' logical reasoning. The text for this course is *The University of Chicago School Mathematics Project, Geometry (2nd edition)*, in addition to other teacher-selected materials. A TI-84 family graphing calculator is required.

*Edith Fouser, Julie Nelson*

## **Advanced Algebra**

Advanced Algebra extends the ideas of Algebra with an emphasis on quadratic and linear functions, equations, inequalities and their inverses, and linear systems. Students will practice operations on numbers and expressions, such as powers, absolute value, and radicals. Representations of all of these ideas in the coordinate plane are explored at length. We will study rational numbers and variation. New ways of organizing real numbers using sequences and matrices will be explored as time permits. The exponential and

logarithmic functions are introduced. We will build on the ideas of right triangle trigonometry introduced in Geometry using the coordinate plane and the Unit Circle. The text for this course is *The University of Chicago School Mathematics Project, Advanced Algebra* (3rd edition). Students are required to have a TI-84 family graphing calculator.

*Julie Nelson, Tim Te*

### **Precalculus**

Precalculus will cover a study and review of essential basic skills, advanced algebra, complex fractions, and function theory. The course is designed to give a balanced preparation for advanced mathematics courses in either Calculus or Statistics. A significant aspect of the class is that it will emphasize a better understanding of functions and their application to real problems and how functions are used to model data sets. The structure of the class will be a blend of lecture, small group workshop, discussion, independent investigation, problem sets and use of online resources. In general, the class will follow the content outlined in *Precalculus (9th edition)* by Michael Sullivan. During the second semester we will supplement the course with a unit on descriptive statistics problems from the *UCSMP Functions, Statistics and Trigonometry* textbook. Required technology for the course is the TI 84 family calculator.

*John Wigglesworth*

### **Advanced Topics in Mathematics** (Not offered in 2018-2019)

This year-long course provides students in the upper level mathematics program an opportunity to build confidence as thinkers of mathematics and foster an appreciation and awareness of mathematics as a fundamental discipline in a liberal arts education. Past courses offered study of topics in Advanced Algebra, PreCalculus, Introductory Calculus, and Statistics.

### **Calculus 1**

Calculus I provides a strong foundation for advanced mathematics at the college level for group 5 students and the beginning of the content required for Calculus 2 and the foundation for success on the Advanced Placement Calculus AB test for group 4 students. We will begin with a global review of Precalculus topics in function theory, algebra, and analytic trigonometry most relevant to calculus and then proceed with Calculus topics in limits and continuity, differential calculus, and an introduction to integral calculus, finishing with the Fundamental Theorem of Calculus. Parametric and polar equations are introduced. Applications in curve-sketching, optimization, related rates, accumulation and mathematical modeling will be explored. We will approach the content from graphical, analytical, and numerical perspectives, and students will be expected to communicate their reasoning in both writing and discussion. The textbook for this class is *Rogawski's Calculus for AP\*, Early Transcendentals* (2nd edition) by Jon Rogawski. Students are required to have a TI-84 family graphing calculator.

*Anton Fleissner, Joan Sullivan*

### **Calculus 2 (AP)**

Calculus 2 is the study of change, accumulation, infinity, and mathematical logic. The course builds on the fundamental concepts of limits, continuity, derivatives and integrals that were introduced in Calculus 1, with an emphasis on problem solving to develop intuitive understanding. The course will cover advanced techniques of differentiation and integration, applications of the integral, differential equations and slope fields, parametric and polar equations and their derivatives, as well as review the five main theorems of

Calculus. Students who enroll in this course have the opportunity to take the Advanced Placement Calculus AB examination, with time allowed within the curriculum for comprehensive preparation for the AP Exam. However, the primary goal is to ignite in students a passion for mathematics and strong understanding of Calculus as the study of change and accumulation. Additional topics may be covered as time permits. The textbook for this class is *Rogawski's Calculus for AP\*, Early Transcendentals* (2nd edition) by Jon Rogawski. Students are required to have a TI-84 family graphing calculator.

*Joan Sullivan*

## Writing

The writing program at Waring helps students to discover and develop authentic, personal voices. At all levels of the program, students write poems, stories, dialogues, plays, and personal essays. Whatever the genre, they write every week of their Waring career, and by doing so develop both imagination and self-knowledge. We are certain that the writing program helps our students to speak personally and memorably at Convocation and Graduation every year; more important, it helps them to explore inner resources that they might not have discovered otherwise.

Writing, like any discipline, is partly a matter of habit, so we help students establish regular writing habits first. At every level of the program, classes meet twice a week: students present their work to an audience of peers and teacher, and the audience critiques it. Audience, in fact, is at the center of the program. Over time, the writing class audience becomes sophisticated in their critical comments; writers, in turn, increasingly understand how their work affects the audience. Put another way, whether a student has just entered the Core program or is about to complete the senior year at Waring, writing classes are workshops; students write, critique each other, revise, polish, and create portfolios. They also publish pieces in the school newspaper and at times share their work with the community at All School Meeting.

Our students enter various competitions such as the Beverly Public Library Teen Poetry Contest each year. In March, Waring holds a Young Writers Conference, which draws published authors from around the country and high school writers from the Boston area, including a group of students from Waring. In May, we send one or two juniors to the New England Young Writers' Conference at Bread Loaf, in Ripton, Vermont.

### Some Guidelines for Credit and Honors Requirements in Writing

Specific requirements for credit and Honors in Writing depend on the specific class. However, in general, CREDIT in Writing requires at least the following:

- Alert, empathetic class participation and regular in-class reading from your own work
- On-time responses to prompts and assignments
- Satisfactory completion of revision assignments for the portfolio

HONORS in Writing asks students to consider the following:

- Preparation for class: Do the given assignments, and turn them in on time. Write often, preferably every day, even if it's only 75-150 words. Read your fellow students' work when it's assigned, and prepare specific, craft-based comments which will help them with revisions. Study readings with an eye toward the writer's craft, and pick up as many tools as you can. If you find exercises, prompts, or readings which are generative, bring them to class and share them.
- Class participation: Be there, and be there on time. Show leadership in class participation. Speak regularly in discussion. Listen actively and engage respectfully with your fellow learners. Ask questions and listen to the answers. Take notes during classroom discussions. Share own struggles with writing, and be receptive to others. Take risks—read in-process, strange, or otherwise unorthodox work; be open to new prompts and activities; let the class hear your written voice. Honors students may be asked to lead a class period, complete an additional assignment, or undertake a special project.
- Growth in skill and understanding as a Writing student: Show development of skill in reading, writing, and speaking about the texts we study and the student work we read. Admit to your own weaknesses, and pursue help with your writing where

necessary. Write often enough to discover your own process as a writer: learn how you generate ideas, how you outline, how you make rough drafts, and how you revise. Use proper spelling, punctuation and grammar in your writing.

- Public demonstration of leadership: Make noticeable effort to bring writing into contact with the world outside the classroom, and vice-versa. When we meet in a large group or divide into small groups, act as a leader. Tutor others in writing, or seek tutoring for yourself. Try attending a writing conference. Submit your work to the school paper, to an online or print journal, and to contests. Read your work in all-school meetings, coffee houses, or other venues that bring your writing to a wider audience.

## **Core Writing**

Core Writing is an introduction to the Waring writing program. Students are introduced to the free-write, the technique of giving back language, and the aesthetics of good writing. They regularly read pieces to an audience of their peers and gradually learn to become helpful and sensitive critics. Students should be prepared to read their work each week in class. Throughout the year, each student works toward creating a portfolio of highly-revised, finished pieces. Students are also expected to read their pieces at least once at an All School Meeting. Teachers of Core writing give frequent assignments in order to help students improve their skills.

*Christiane Jedryka-Taylor, Kyra Morris, TAs*

## **Group 1 Writing**

Group 1 Writing is based on a workshop format: students read their pieces to each other each week in class in order to learn how to give and receive criticism. Students also learn how to listen to and critique (both in writing and verbally) the writing of others. In general, in the fall, one of the weekly classes is conducted as a whole-group workshop which will include lessons on vocabulary, grammar, style, and syntax. The class workshop class will often divide into sections after each lesson. The other weekly class is given over to sharing and critiquing pieces in sections led by pairs of Teaching Assistants (TA's). As the year progresses both days become TA led. Throughout the year, all students work toward creating a portfolio of highly revised writing pieces.

The focus of the first half of the year is learning and practicing various genres: fiction, non-fiction, journalism, dialogue, and poetry. We give frequent assignments in order to help students improve their skills; we also encourage public readings and publication in Waring's paper, *Le Temps Retrouvé*. In the winter, all students will be asked to submit to the Beverly Library Poetry Contest. In the second semester we will concentrate on observation and character description, culminating in a major written portrait of a Waring Senior (or two) which will be read at two all-school meetings at the end of the year.

*Jim Watras, TAs*

## **Group 2-3 Writing**

Group 2-3 Writing is based on a workshop format: students write regularly and read their work aloud, in the process learning to give and receive effective criticism. Students write in a variety of genres, which may include fiction, poetry, personal and descriptive essays, drama, and critical reviews. Pieces are often revised based on comments from students and their teacher; over the year students create a portfolio of revised pieces. Students are encouraged to go public with their work by reading at an All-School Meeting, submitting a piece for publication, and/or entering the Beverly Library Teen Poetry Contest.



Teachers often use prompts to focus student writing, as well as to encourage creativity. Some sections emphasize journal writing, helping students to deepen their precision and flexibility as writers. Many classes open with a brief reading; models from published writers are used both to inspire and instruct. Teachers may introduce various concepts, strategies and exercises to enhance students' understanding of writing as a craft.

*Jill Sullivan, Charles Newman, Brendan Pelsue, Edith Fouser, Josh Webb*

### **Group 4-5 Writing: Creative Non-Fiction**

This course focuses on three interrelated genres in creative nonfiction: food writing, criticism, and longform journalism. The semester will begin with students reading published work and then doing three short "sprints" in each of these areas. (Capsule video game reviews, Waring-specific "Talk of the Town" blurbs à la *The New Yorker*, and encomia to pre-packaged ramen noodles are all possibilities.) For the remainder of the semester, students will work on longer pieces they aim to "pitch" at specific publications. (*Harper's? Field and Stream? Bon Appétit?*) We will read creative nonfiction from a variety of sources. Emphasis is on drafting and revision, with workshop-style peer feedback. At the end of the semester, we will produce a magazine of writing produced in class that will be distributed to the Waring community.

*Brendan Pelsue*

### **Group 4-5 Writing: Le Temps Retrouvé** (Not offered in 2018-2019)

This class takes direct editorial supervision of our oldest school publication, *Le Temps Retrouvé*. To this end students will not only be writing articles to deadline and working in a journalistic fashion, but also soliciting and editing the work of other students in the school. Classes consist of workshops, brainstorming sessions, production sessions, peer editing, and field work around the school. Each student will also, with a partner, take overall responsibility of at least one issue of the paper per semester. We are tasked with producing regular issues and with helping the magazine develop and maintain a fresh feel and perspective that keep it integrated as a vital part of the school community.

### **Group 4-5 Writing: Personal Essay**

The Personal Essay is a semester course designed to help students develop their voices as writers and understand the subtext of their written work. The course uses a workshop format: students read published essays, write their own essays, and comment on the essays of their peers. Class time is devoted to discussing both published and student work. We stress the process of revision: each student produces a number of revised essays that respond to teacher and student commentary. For seniors, the Personal Essay course is also intended, directly and indirectly, to assist students in writing their essays and supplementary statements for college admissions.

*Tim Averill, Charles Newman*

### **Group 4-5 Writing: Playwriting**

Playwriting is a semester course designed to help students explore the dramatic mode and in so doing discover the importance of subtext in human interaction. The course uses a workshop format: students read published plays, attend performances, write their own plays, and both comment on and perform in their peers' plays. Students will write the plays that will constitute part of the Waring Spring Theater production. Class time is devoted primarily to reading and commentary. Students will explore playwriting techniques and respond to prompts designed to help them develop their dramatic writing voices and to identify deeply felt material as inspiration for their plays. In addition, all

students will participate in the Boston University Young Playwrights' Festival and will receive the support of a local playwright mentor from the Young Voices program.

*Elizabeth Gutterman*

### **Group 4-5 Writing: Poetry and Pottery Workshop**

In the Pottery and Poetry course we focus on learning how poems are shaped and crafted by engaging the physical act of making wheel-thrown forms with clay. We listen to and look closely at published work, and share with each other our poems and our vessels. Every week, students write a poem and throw a vessel, with the expectation that each informs the other in terms of structure and design. Each week we borrow a volume of poetry from the library and read in it, keeping a commonplace book. We document our own work and respond to each others' poems in workshop. Much like an art course, Poetry and Pottery emphasizes a combination of exercises and explorations, with the aim of helping students begin to find their own lyric voices and fusing various elements of the creative process. The semester works towards a group exhibit of poems and fired clayware.

*Joshua Scott-Fishburn*

## Art

Waring's art program is founded on the idea that the world can be interpreted visually, and that during this process of seeing and drawing/painting/creating students more fully process what they see around them. Drawing is taught as a skill – or language – that everyone can access. It is the Art Department's goal that each and every student (regardless of when they arrive at Waring) will move beyond basic skills in drawing to a fluency that allows them to express themselves visually with confidence. In honing the ability to draw from direct observation the student learns to take the time to actively see the world with greater depth and clarity. The Art program is designed to build skills year to year through a progressive and linked series of curricula. By the time Waring students graduate, they should feel confident in their visual voice, drawing from direct observation with relative ease and having an appreciation of and critical vocabulary for discussing visual art.

Building basic confidence and skill by drawing from direct observation is the hallmark of the lower levels of the art program. To this end, black and white is used primarily until the student reaches the tenth grade level. During the tenth grade year, students begin to explore both color theory and how color impacts their expressive possibilities. Weekly sketchbook assignments provide a means for students to more personally explore concepts presented in class, and students are also encouraged to use their sketchbooks in a way that feels personally relevant. The final two years of the art program are given over to elective offerings, and students choose a course that will allow them to explore in depth a particular process or concept. Additionally, qualified seniors may petition to create a Senior Intensive: a class of their own design that allows exploration of a creative endeavor of interest to them. In the tenth through twelfth grades, students are also given the option of taking art class at the Honors level. While each teacher may have specific requirements, it is understood that an Honors Art student will demonstrate an ongoing desire to push their creative process forward and a commitment to expanding and improving their visual vocabulary and skill level.

When students leave the Waring Art program they should have a confidence and interest in engaging with art both as makers and connoisseurs of visual culture.

### Core Art: Foundation

Art in grades 6 and 7 is intended to build observational drawing skills, foster expression through the visual image, develop a relationship with the sketchbook, and explore art materials through various projects. Emphasis is on composition and using shape and line effectively within the picture plane. Using primarily black and white media, students practice drawing contour, proportion and value. Other projects include mask-making and 2- and 3-dimensional design projects and are often cross-curricular. Regular critiques allow for sharing ideas, examining the work of others, and building a vocabulary and ease in evaluating and appreciating artwork. Sketchbook assignments support concepts and techniques explored in class.

*KB Breiseth, Marika Whitaker*

### Group 1: Interpretation & Process

Group 1 Art focuses on integrating and strengthening drawing and observation skills and encouraging a more interpretive take on the world through line and composition. The connection between two- and three- dimensional form is introduced through work with clay, and portraiture is explored. Work continues primarily in black and white media, with landscape, the human form, and still life as subject matter. The media is varied, and includes charcoal, graphite, paint, clay and printmaking. Students participate in art critique

and hone their ability to express visual ideas verbally. Sketchbook assignments support concepts and techniques explored in class.

*KB Breiseth*

### **Group 2: Representational Studies (French Immersion)**

Group 2 Art builds on the techniques and materials explored in Group 1, to develop drawing skills and explore connections between two and three dimensions. Using primarily black and white media, there is an emphasis on sketchbook practice, the human figure, and perspective, as well as on how to visually convey experiences and ideas through line, composition, scale, and scope of subject. The Group 2 year in Art is conducted in French, and regardless of proficiency level each student benefits from French immersion in advance of the Angers trip. Critique takes place in a structured way and is based on the work done in class, and students develop verbal communication around art-related ideas and their visual work. Sketchbook assignments support concepts and techniques explored in class, and sketches completed while traveling in France provide the inspiration for 2-D and 3-D work done when the class returns from their exchange abroad.

*Stéphanie Williams*

### **Group 3: Color Media**

Art 3 is an in-depth exploration of color using a variety of media, with a continued emphasis on drawing and composition. Building on previous years' neutral value work, students begin the year working from observation, using a variety of media while also continuing to exercise dynamic compositional choices through color relationships within the picture plane. Color theory is presented and explored, along with the color wheel, and the properties of color such as color temperature, harmonies and mixing. As one of the most expressive of the art elements, color often elicits a direct and visceral reaction, much like music. As such, in the spring semester, Group 3 students continue their investigation of color by working intuitively and constructing images based on personal expression and exploring emotional impact of color in art. Throughout the year, work by relevant artists is presented and discussed throughout the course, offering students an art historical context. Sketchbook homework supports the development of concepts. Critique builds skills in articulating and exchanging ideas effectively using an art-specific vocabulary.

*Marika Whitaker*

### **Group 4-5 Overview**

Groups 4 and 5 choose from different art courses each semester for a more in-depth studio experience. The courses may explore a particular approach, or be media-based, including sculpture, painting, drawing, printmaking, mixed-media and/or photography.

### **Group 4-5 B&W Photography (running Semester 1)**

In Black and white photography class students investigate camera controls, lighting conditions, film developing, and enlargements from negatives, as well as ways their photographic images express ideas and observations. For students taking 35mm black and white film photography for the first time, basic camera techniques, film processing, printing and darkroom procedures are introduced. Returning students are challenged to develop their art technically and conceptually at a more advanced level.

Class time is reserved primarily for darkroom use, with some critiques and presentations. Photographs are critiqued in terms of proper exposure to achieve a full range of values, composition, expression of a subject, and craftsmanship. Work outside of class involves taking pictures, researching and keeping a journal on photographers, personal reflections,

and/or photographic processes. The class also introduces a very brief history of photography over the last 300 hundred years.

*Stéphanie Williams*

### **Group 4-5 Materials/Matter (running Semester 1)**

How does what you use to make art affect the process? How can the materials you choose provide a helpful structure to move the creative process forward? This course will use many different artistic media and processes – from graphite to clay, paint to wire, sculpture to printing, drawing to collage – to explore the myriad ways that materials influence and direct art making. We will examine artists whose work speaks primarily to materials as subject matter (Robert Smithson, Tara Donovan, and Frank Auerbach are a few examples) and try to understand where materials, personal viewpoint and subject matter intersect. Sketchbook work and regular viewing of artists both contemporary and art historical will help refine each student's individual approach to artistic process and relationship to materials.

*KB Breiseth*

### **Group 4-5 Intro to 3-D Sculpture and Design (offered Semester 1)**

In this class we will develop three-dimensional studies for figurative and abstract sculptural elements as well as an introduction to Industrial Design. The medium will vary with each project, and ranges from paper to wire, soap, balsa wood, and recycled materials. We will explore line structures, solids and skins. Our works will remain in a portable scale. At the end of the semester the class as a whole will be given a choice between working on an industrial design inspired project or a sculpture. To make and discuss, we'll draw inspiration from artists including: Peter Callesen, Calder, Brancusi, Christo, and many more brought up by an inspired spark and you. Homework will include conceptual sketches, research and readings as well as more hands-on practice.

### **Group 4-5 Portraiture: Object or Subject? (offered Semester 1)**

Is a portrait a straightforward representation, a careful, objectively rendered likeness of someone or something? Or is it an expression of one subjective viewpoint in one small moment of time? The answer is, of course, that it is both. This course will explore portraiture and push its limits as a genre, working with a variety of media and unorthodox approaches. Students will be expected to use their sketchbooks to explore and refine the ideas being presented in class, and then to turn these initial sketches and ideas into more fully realized and personalized portraits. Slideshows will explore a range of approaches to portraiture (both representational and non-representational), and studio experiments will encourage a personal approach and interpretation to the genre.

## Performing Arts

The Performing Arts Program was launched in the 2013-2014 academic year as a way to bridge the already well-established programs of Music and Theater as well as the variety of performance opportunities that are available to Waring students. By virtue of restructuring the Music/Theater Performance programs into a single department, students are encouraged to make connections between many areas of performance, including instrumental and choral programs, Theater performances, larger school-wide concerts, and student-run coffee houses. In addition, the Performing Arts Chair and faculty seek to make connections across the curricula, encouraging collaboration between students (and faculty) in various areas of the larger Waring program. For example, students who do music or Theater projects in other departments (from Humanities, to French, to Science) are encouraged to perform their work, collaborate with choruses or ensembles, or find any other appropriate venues to take their work further.

Students in Groups 3, 4 and 5 are eligible to pursue honors tracks in Music, Theater, or both. Unlike other departments, the Music and Theater Honors are year-long tracks and are awarded in June based on the students' activity and are approved by the PA Chair and other members of the PA department. Students who work at the honors level in Music and Theater register with the Performing Arts Chair who serves as a liaison between the student and the other faculty. The Music and Theater Honors program involves a mix of core requirements as described on the forms located on the Performing Arts Wiki, and can be fitted to the individual student based on his/her strengths, interests and needs.

### Music Program (Performing Arts)

Waring students experience and learn about music in a variety of settings, from private instrument lessons to small and large ensembles, from Music and Humanities classes to all-school settings such as Music Listening meetings and all-school chorus. In addition, we occasionally have guest artists come in and perform for the school community. Likewise, students regularly attend concerts or rehearsals, such as with the BSO. Each school year opens with a performance by the Waring Music Faculty. Finally, students have many opportunities to share what they have learned at informal performances during the school day or more formal evening recitals, called *Soirées Musicales*.

Through the many aspects of our music program, we hope to foster a love and understanding of classical music and an appreciation for the connections and similarities between classical music and other musical forms such as jazz and folk.

Music Honors is awarded on a department-wide basis (see *Performing Arts* description).

### Private Music Lessons

The school holds a strong commitment to encouraging students to study a musical instrument. Many aspects of music are best learned by creating music rather than by merely listening to it. Since music is a performing art, it is a goal of the school that students reach a level of aptitude where they can perform on their instrument for the school community.

Instrumental and voice lessons are available to Waring students who demonstrate the commitment and discipline necessary to profit from such study over the long term. The commitment must include a willingness to practice, perform, and attend lessons on a regular basis. Students who wish to take lessons may apply to do so with the Performing Arts Director who will find a suitable match (teacher/instrument) for the student. In some cases, the Performing Arts Director and/or other music faculty might make recommendations for students to do small ensemble work, take group lessons, or any other variety of work with their instrument. Music Honors students will, except in very rare

cases, be expected to take private music lessons and perform regularly.

*Tiffany Baxter, Renée Becker, Robert J. Bradshaw, Susan Burnett-Halling, Charlotte Chane, Tim Deik, Peter Fedele, Kathleen Forgac, Steve Lantner, Andrea LeBlanc, Martha Leven, Shaylor Lindsay, Kristina Martin, Jason Miele, Kristen Miller, Nat Simpkins, Susan Slowick*

### **Core Music/French Immersion**

For one period each week, first year Core students study music and dance, conducted entirely in French. New students focus on dance, movement, and rhythm early in the year. Some of the dances learned in class are performed at Core Night in November. Later in the year, the students begin to study topics in music theory and sight-singing using a sight-singing book that they will use through 9th Grade. In this class, students also study music in preparation for a field trip to an open rehearsal of the Boston Symphony Orchestra.

*Renée Becker*

### **Core Music II**

Returning CORE students continue with Music class conducted in English, which meets for one period each week. In the first semester, they cover the History of Western European Music and in the second semester, they cover the History of American Popular Music. This class also serves as an introductory class to the music classes they will have in Grades 8 and 9. Material covered includes an introduction to music terminology and basic music theory, intervals, major and minor scales and solfège.

*Robert J. Bradshaw*

### **Music 1/French Immersion**

Music 1 meets 2 periods a week for one semester. This course explores significant instruments and composers in French. The immersion style approach offers the students the opportunity to use their French skills to deepen their historical knowledge of music. The course meets twice per week for one semester and unites diverse levels of French from beginner to intermediate.

*Renée Becker, Anna Marie Smith*

### **Music 2**

Music 2 is a full-year course that meets one 50-minute period each week. The course continues sight-singing/ear-training practice while adding to the program important building blocks in Music Theory, analysis, form and hands on composition. The class will continue use of Mike Campbell's *Sight-Singing Book* and will also use visual in-class aids from MusicTheory.Net as well as miniature white lapboards with music staves for hands-on practice with notation, intervals and ear-training. Additionally, students will use *Noteflight's* online software for composition and notation. In some cases, the teacher might supplement units with exercises from the textbook *Music in Theory and Practice*.

*Robert J. Bradshaw, Anna Marie Smith*

### **Choral Music Program**

Singing is an important part of the music program at Waring. Students in 6th and 7th grade sing together twice a week in the Core Chorus. All students in groups 1-5 are placed

in one of four different singing groups that rehearse twice a week. The groups are: Boys Chorus, Girls Chorus, mixed voice Chorale, and Madrigals. The repertoire and sound of these vocal combinations are quite different. Throughout their time at Waring, students rotate through the various groups to enrich their vocal experience and participate in All School choral songs or projects.

### **Core Chorus**

Core Chorus teaches all members of Core how to sing with healthy sound, posture and musicality. They learn how to actively listen, blend, harmonize and project. They explore a variety of musical genres, time periods, cultures, and languages. Core Chorus performs at Core Night and in the Winter and Spring Concerts.

*Tiffany Baxter*

### **Chorale**

Composed of about 55-65 singers, the Chorale is the largest chorus of the Waring School. Students are exposed to standard choral repertoire, major classical works for larger groups and, occasionally, popular works and musicals.

*Tiffany Baxter*

### **Boys' Chorus**

Boys' Chorus is a small ensemble of about 20 singers. Boys learn to sing in close TTBB (tenor, tenor, bass, bass) harmony and perform works suitable for male singers, often *a cappella*.

*Kristina Martin*

### **Girls' Chorus**

Girls' Chorus is a small ensemble of about 25-30 singers. Girls learn to sing both in unison and in close 2-part and 3-part harmony. There are often solo opportunities in this chorus. Students work on vocal skills such as blending, projecting, listening, and harmonizing. They learn to collaborate with the instructor and each other to bring about the final product. Girls' Chorus performs at both the Winter and Spring Concerts, either with piano accompaniment, *a cappella* or accompanied by instruments played by members of the group.

*Renée Becker*

### **Madrigals**

Madrigals is a select mixed group of 12 singers, chosen for vocal and sight-singing abilities. The ensemble performs primarily *a cappella* music at Waring events such as soirées, graduation, and the Winter and Spring concerts. They attend a Choral Festival every year to get critiques to help them improve.

*Shaylor Lindsay*

### **Orchestra**

In the Spring Semester, the Waring Orchestra meets twice per week, during the choral periods. Orchestral instrumentalists in Groups 1-5 who have completed at least one year of private instruction on their instrument participate in the ensemble. WSO members are



active in the school community including collaborating with other ensembles, performing in ASMs and on the Quad, hosting a banquet, traveling to Boston to hear the BSO, and performing in the Spring Concert.

*Robert J. Bradshaw*

### **Additional Ensembles, Chamber Groups, Electives**

There are many opportunities for small ensembles and chamber music work. During Monday Focus Flex, the Jazz Ensemble rehearses for 40 minutes each week. Vocal Ensemble meets during lunch on Mondays and serves to prepare interested voice students for District Auditions as well as performances in the all-school concerts. Also during electives (Monday and Thursday), time may be allotted for instrumentalists to have chamber group lessons and small ensemble sessions - these sessions lasting several weeks (depending on the group and undertaking). Honors music students are required to do some amount of ensemble work each year and all others are encouraged to do so when the time is appropriate. Other ensembles offered may include Ukulele, Music Skills, Strings, Improv, Performance Nerves, and a Beatles Band.

### **Theater Program (Performing Arts)**

The Theater program at Waring is focused on nurturing students' artistic impulses and thereby enabling them to flourish in multiple performance roles and as confident lifelong learners who create fully realized and inclusive theatrical experiences. Waring Theater is an ensemble-based program that encourages students to participate in multiple design aspects while simultaneously fully developing their onstage potential. Through exercises, improvisation, and scene study, students increase their range of physical and vocal expression. The Theater Department has strong ties with Humanities, and we strive to produce plays that will dovetail with the themes and periods being covered in the upper level Humanities courses. The Theater Department currently produces three plays each year including a collection of student-written plays written in the fall semester Playwriting class, plays for Core Night, and the Core Winter Theater production. Currently, the Theater Department offers a yearly musical in the upper school.

#### **Core Theater**

Core Theater introduces students to the fundamentals of theatrical experience. Students participate in multiple exercises designed to hone their skills as listeners, observers, and collaborators. Drawing inspiration from artwork, poetry, and folk tales, as well as their Humanities readings, students create several plays and perform a selection of these at the Core Night presentation in November. During the winter sports term, students have the option of participating in the Core play which often features a musical element. Our craft exploration resumes in the spring, when students read and analyze plays and then create and devise their own pieces.

*Elizabeth Gutterman*

#### **Group 1 Theater**

Group 1 Theater builds on the foundations established in CORE Theater. The course begins second semester and meets 2 periods per week as well as during allotted Group 1 Humanities periods. Students participate in several character and ensemble-building exercises building toward a final production developed in collaboration with their Humanities class.

*Elizabeth Gutterman*

# **Athletics**

## **"Sound Body, Sound Mind"**

The Waring School athletics program fosters the development of character and personal responsibility through sports. It promotes teamwork, sportsmanship, fitness, and individual mastery of athletic skills. As an integral part of Waring's mission, athletics promotes the leadership and interpersonal skills necessary to a community built on respect, camaraderie, stewardship, sacrifice, discovery, and pride in individual accomplishment. The athletics program cultivates lifelong habits for good physical health, enhances mental alertness and emotional stability, and encourages students to excel to the best of their ability.

Students participate in team or alternative sports throughout the academic year. Team sports include soccer and cross-country in the fall, basketball in the winter, and club ultimate and lacrosse in the spring. Alternative sports are available to students in groups 1-5 throughout the winter and spring. These sports include YMCA, kick-boxing / self defense. Theater is also available to students in groups 1-5 in the fall.

### **Fall sports**

Fall sports offers boys and girls varsity, junior varsity, and middle school, "building the foundation" soccer. The varsity boys compete in the Mass Bay Independent League and the varsity girls compete in the Independent Girls Conference. Varsity and junior varsity cross-country is offered to students in groups 1-5. Theater is another offering to groups 1-5.

### **Winter sports**

Winter sports consist of varsity and junior varsity basketball. Middle school basketball for both girls and boys is built into the academic day. Waring also offers kick-boxing / self defense, as well as strength and conditioning through the YMCA for groups 1-5. Theater is also an option for groups 1-5. Students in groups 3-5 can opt out of winter sports but need to demonstrate another athletic activity that would produce similar benefits gained as participating in one of the Waring winter sport options. A proposal form must be filled out. These can be found in the Director of Athletics office.

### **Spring sports**

Spring sports consist of varsity, junior varsity, and middle school "building the foundation" lacrosse. Waring also offers kick-boxing /self defense. Club Ultimate Frisbee is an option and is co-ed, competing against other schools in the MBIL and IGC. Theater is also an option for students in groups 1-5.

# Health

In line with Waring's mission, the health program takes an interdisciplinary approach to the subject, integrating wellness education, leadership and team building, and health information into the curriculum. Because research has shown that adolescents make healthy lifestyle choices based not only on information but also on relationships with their families, peers, coaches, and teachers, the health program sets out both to inform the students of the possible outcomes of different choices they may face, and to help students examine and understand the influences and relationships which affect them.

## Core Health

Core Health focuses on topics such as friendships, self-confidence, basics of nutrition, introduction to sexual education, basic anatomy and physiology, hygiene, team-building, movement, and other interests that students have. The program strives to create an environment where all students to feel that their opinion counts and that what they say will be heard. Students often find that speaking publicly about their feelings and personal experiences is difficult at first, but becomes easier through the year as their comfort with their classmates and the setting increases and their trust in one another grows.

*Colleen Jenkins, Cory Grant*

## Group 1 Health

Each year Group 1 Health uses the overarching question, "Am I Normal?" to deal with topics ranging from advertising and media influences, personal identity, and family structures, to academic and personal ethics, bullying, sexuality, nutrition, peer pressure, and drugs and alcohol. The units on sexuality, nutrition, and drugs and alcohol are presented by outside professionals with specialized experience in the subject matter.

*Colleen Jenkins, Meg Ferguson Sauder*

## Group 2-3 Health

Group 2/3 Health continues and expands on the topics addressed in Group 1 and covers sexuality, sexual activity, contraception, STI's, substance use and abuse, addiction and recovery, peer pressure, mental health, nutrition, exercise, family issues, and use and abuse of social media. The course employs a variety of approaches, including discussion, small group work, lectures, guest speakers, videos, radio, and role playing. Students also learn stress management, with an emphasis on mindfulness meditation.

*Gallaudet Howard, Cory Grant*

## Group 4-5 Health

Group 4-5 Health continues the topics which students have been discussing in Groups 2 and 3, and is largely driven by the students. They decide which topics they need information about, and through discussion, reading, research, and submission of anonymous questions which we answer as a group, the class raises their own and others' awareness about the nuts and bolts of staying healthy. Topics include sexuality, sexual activity, contraception, STI's, abuse, addiction and recovery, mental health, relationships (peer, family, romantic), social media, stress management, the transition to college, leadership, and mindfulness.

*Gallaudet Howard*

## **Electives**

The Elective Program is a once-a-week opportunity (Monday afternoons) for students to work in an area of mutual interest on a subject, skill or activity proposed by the teacher. Elective choices are shared with students during the first week of school and usually begin the third week of school. The offerings are diverse and reflect the varied interests of the Faculty involved and represent most areas of the Waring program. This year offerings include Debate, Math Club, Ancient Languages, Character Building, Reading Plays, Green Thumb and First Lego League. Age restrictions do apply in some cases. In addition a Supervised Study period is offered if students wish to work together collaboratively or get a head start on homework. Finally, students may opt to go home at 3:20 after All School Meeting. Students staying on campus (for carpool reasons) but not participating in an Elective must sign up for the supervised study.