

# VES CURRICULUM GUIDE

2023 - 24

# CURRICULUM

## GUIDE

The VES Curriculum Guide has been designed to provide students and parents with information about course offerings and basic requirements necessary for VES graduation.

Through our academic program, students will pursue STEM disciplines, explore diverse perspectives in the humanities, enjoy artistic endeavors, and build their fluency in another language and culture. VES courses are designed to develop curious, innovative thinkers and producers, who:

- create, transform and apply knowledge and come to see the disciplines as powerful lenses to understand the world.
- ask compelling questions and think critically.
- bring people together to collaborate in solving multifaceted problems.
- express their ideas with confidence and clarity.

Please thoroughly review this information. Thoughtful and deliberate planning of your coursework will ensure that you are well-prepared for your future. We encourage you to work closely with your advisor and, when appropriate, our college counselors to develop a clear path and specific course selections that excite and challenge you as you strive Toward Full Stature.

# GRADUATION

## REQUIREMENTS

Each student must earn at least 19 credits to graduate. All VES students must carry a course load of at least six classes per term, unless an exception is approved by the Academic Dean and Associate Head of School. Students must choose at least five core classes each year, and they may choose from a variety of electives each term. Not all electives are available each term, so students need to consult with their advisors and/or College Counseling when making selections.

**Note: All courses listed below are one credit, unless otherwise noted.**

**ENGLISH** (*4 credits required. Students must be enrolled in an English class at all times.*)

English 9: Culture & Identity  
 English 10: Communities & Power  
 AP Literature & Composition  
 AP Language & Composition

### English Seminars

Literature as Art  
 Experimental Literature: Toys Writers Play With  
 The Uncanny: Gothic Horror  
 We Must Remove the Mask: The Art of the Personal Essay  
 The Essential Stories  
 Poetry Across the Curriculum  
 American Writers

**HISTORY** (*3 credits required, including US History. The third credit can include two one-term courses.*)

Global Cultures	AP Comparative Government & Politics
Modern World History	International Relations
AP World History: Modern	Economics
US History	Legal Studies
AP US History	Introduction to Psychology
US Government & Politics	Gender & Ethnic Studies (.5 credit for one term or 1 credit for the year)
AP US Government & Politics	

**MATHEMATICS** (*3 credits required, including Algebra I, Geometry, Algebra II/Trigonometry*)

Algebra I	Statistics
Geometry	AP Statistics
Honors Geometry	Calculus
Algebra II/Trig	AP Calculus AB
Honors Algebra II/Trig	AP Calculus BC
Math Analysis	Multivariable & Vector Calculus
Honors Math Analysis	Science & Math Advanced Consortium

# GRADUATION

## REQUIREMENTS

**SCIENCE** (3 credits required, including Biology and either Chemistry or Physics)

Biology	Physics
Honors Biology	AP Physics
AP Biology	AP Environmental Science
Chemistry	Science & Math Advanced Consortium
Honors Chemistry	Introduction to Sports Medicine
AP Chemistry	(.5 credit)
Human Anatomy & Physiology	

**WORLD LANGUAGES** (2 credits required in the same language)

French I - V	Spanish I - V
AP French Language & Culture	Honors Spanish III & IV
	AP Spanish Language & Culture
	Spanish VI: Advanced Seminar

**RELIGION** (.5 credit required; all courses are .5 credit)

New Testament	World Religions I
	World Religions II

**THE ARTS** (1 credit required; all courses below are .5 credit per semester; AP courses are two semesters and count for 1 credit.)

Introduction to the Arts	Chamber Ensemble
Ceramics I	Glee Club
Ceramics II	Jazz Ensemble
Advanced Ceramics	Vocal Ensemble
Digital Photography	Filmmaking I
Studio Art I	Filmmaking II
Studio Art II	Acting
Portfolio Development	Technical Theater
AP Studio Art	Advanced Performance
AP Music Theory	Stage Combat
	Public Speaking

**COMPUTER SCIENCE** (.5 credit required)

Computer Science I - Collaboration & Design (included in the 9<sup>th</sup> grade ARC Collaborative curriculum: see p. 5)

Computer Science II - Programming & Web Design (.5 credit)

Computer Science III - Body Recognition Programming (.5 credit)

Computer Science IV - App Design & Networking (1 credit)

# DISTINCTIVE ACADEMIC

## PROGRAMS

### ADVANCED STUDIES PROGRAM

Students achieving the most advanced course in a particular discipline VES offers and who seek to explore a related topic in greater depth may be approved to pursue Advanced Studies credit in that specific discipline. Advanced Studies students complete a rigorous application process, gain the support of a faculty mentor, and set their own deadlines and goals as they develop a project to present to the VES community. Grades are based on the final project, the presentation and on their process, especially their ability to work independently and display mature habits of mind as they pursue their goals.

### SCIENCE & MATH ADVANCED CONSORTIUM

This course is a year-long, senior academic offering and is considered a core academic class. The course provides rigorous interdisciplinary study in a collaborative and project-based setting. The course quickly moves toward a student-driven format with an emphasis on design thinking throughout, culminating in a year-end group project presented to the school community. Rising seniors who have excelled in advanced math or science coursework may apply to take this class. Learn more on p. 30.

### ADVANCED PLACEMENT PROGRAM

VES offers 17 AP courses. While students must meet requirements to enroll in certain AP courses, others are open to any interested student. Over the past five years, VES students have been recognized by the AP Scholar Program as:

<b>Scholars</b>	101
<b>Scholars with Honors</b>	53
<b>Scholars with Distinction</b>	91

### 9<sup>TH</sup> GRADE ARCH COLLABORATIVE

The 9<sup>th</sup> Grade ARCH Collaborative provides an interdisciplinary introduction to four subject areas that students can apply across their VES experience and future studies. 'A' stands for the Arts, which students engage with through a quarter-long Introduction to the Arts course; 'R' stands for Reasoning, which is the focus of their quarter in the Critical Thinking course; 'C' represents their study in Computer Science I (see p. 58); 'H' stands for quarter of the year during which students focus on Health and Life Skills.

The ARCH Collaborative enriches students' learning in core subject areas while exposing them to other aspects of our curriculum that may spark a new interest, talent or passion to pursue further over the course of their VES career. In short, the ARCH courses are a meaningful segment in the path of our ninth graders' high school experience.

# HONORS & AP ADMISSION

## CRITERIA

### HONORS & ADVANCED PLACEMENT COURSES

Because of the demands, rigor and focus of AP courses, it is important that we help students make thoughtful decisions with regard to AP classes and the Honors courses that often lead into them. The first step is establishing a thoughtful pattern of academic growth and maturity. Therefore, VES has set the following limits on the number of AP courses a student may take without seeking approval from the Associate Head of School.

Grade 9 – no AP classes (Students may apply for a waiver if they are exceptionally advanced in a subject area.)

Grade 10 – 1 (Students accelerated in math or a world language may appeal to take 2.)

Grade 11 – 3 (Students accelerated in math or a world language may appeal to take 4.)

Grade 12 – no limit

We also encourage the student, the advisor and the parents to consider the demands of Honors-level courses as they plan for and review the student's overall schedule.

Note that most every AP course has required summer work.

### HONORS & AP COURSE ADMISSION CRITERIA

To determine the student's strong aptitude, achievement and interest in the particular subject matter, and to aid students in making thoughtful academic decisions with regard to Honors/AP coursework, the Academic Departments present the Honors/AP course options and course admission criteria listed on the following pages.



# HONORS & AP ADMISSION

## CRITERIA

### ENGLISH

The following criteria are considered for admission into either AP Literature or AP English Language & Composition:

1. Support of the department and recommendation of the student's current English teacher, which emphasizes the student's demonstrated interest in reading and writing well
2. Average grade of 90 or higher in the student's current English class
3. PSAT Evidence-Based Reading and Writing score of 550 or higher (or an equivalent score on the SAT, Pre-ACT or ACT)
4. Satisfactory writing sample
5. Scores > 3 on any previous AP exams

Meet all criteria—Approved

Meet 4 of 5 criteria—Approval Likely

Meet 3 of 5 criteria—Approval Unlikely

Meet < 2 of 5 criteria—Not Approved

### FINE ARTS

The following criteria are considered for admission into an AP Fine Arts course:

#### AP Music Theory

1. Assessment of musical skills, literacy and working knowledge of basic music theory
2. Ability to sing or whistle on pitch
3. Recommendation of the teacher

#### AP Studio Art

1. Completion of an entry-level art class with a grade of 90 or better
2. Successful evaluation of the student's work by the instructor
3. Completion of a satisfactory number of pieces for the AP Studio Art portfolio in the year preceding enrollment in the actual class
4. Satisfactory completion of summer work

Meet all criteria—Approved

Meet 3 of 4 criteria—Approval Likely

Meet 2 of 4 criteria—Approval Unlikely

Meet < 2 of 4 criteria—Not Approved

# HONORS & AP ADMISSION

## CRITERIA

### WORLD LANGUAGES

The following criteria are considered for admission into Honors/AP Language courses:

#### AP Spanish Language & Culture

Completion of Honors Spanish IV with an average grade of 90 or better, the support of the department and the recommendation of the current teacher are required.

#### AP French Language & Culture

Completion of French IV with an average grade of 90 or better, the support of the department and the recommendation of the current teacher are required.

### HISTORY

The following criteria are considered for admission into an AP History course:

#### AP World History: Modern

10<sup>th</sup> graders must have:

1. Average grade of 88 or better in their previous English and history classes
2. Support of the department and recommendation of their current history teacher

12<sup>th</sup> graders must have:

1. Average grade of 88 or better in their previous English and history classes
2. PSAT Evidence-Based Reading and Writing score of 530 or better (or an equivalent score on the SAT, Pre-ACT or ACT)
3. Support of the department and the recommendation of their current history teacher
4. Score of > 3 on any previous AP exams

# HONORS & AP ADMISSION

## CRITERIA

### HISTORY (CONTINUED)

#### AP US History

1. Average grade of 88 in previous English and history classes
2. PSAT Evidence-Based Reading and Writing score of 530 or better (or an equivalent score on the SAT, Pre-ACT or ACT)
3. Support of the department and the recommendation of their current history teacher
4. AP score of > 3 on any previous AP exams

Meet all criteria—Approved

Meet 3 of 4 criteria—Approval Likely

Meet 2 of 4 criteria—Approval Unlikely

Meet < 2 of 4 criteria—Not Approved

#### AP US Government & Politics

12<sup>th</sup> graders must have:

1. Average grade of 88 or better in their previous English and history classes
2. PSAT Evidence-Based Reading and Writing score of 530 or better (or an equivalent score on the SAT, Pre-ACT or ACT)
3. Support of the department and the recommendation of their current history teacher
4. Score of > 3 on any previous AP exams

Meet all criteria—Approved

Meet 3 of 4 criteria—Approval Likely

Meet 2 of 4 criteria—Approval Unlikely

Meet < 2 of 4 criteria—Not Approved

#### AP Comparative Government & Politics

12<sup>th</sup> graders must have:

1. Average grade of 88 or better in their previous English and history courses.
2. PSAT Evidence-Based Reading and Writing score of 530 or better (or an equivalent score on the SAT, Pre-ACT, or ACT)
3. Support of the department and the recommendation of their current history teacher
4. Score of > 3 on any previous AP exam

Meet all criteria - Approved

Meet 3 of the 4 criteria - Approval Likely

Meet 2 of the 4 criteria - Approval Unlikely

Meet < 2 of 4 criteria - Not approved

# HONORS & AP ADMISSION

## CRITERIA

### **MATHEMATICS**

The following criteria are considered for admission into Honors/AP Mathematics courses:

#### **Honors Geometry**

Students must have successfully completed Algebra I with an average of 85 or better.

#### **Honors Algebra II**

1. Completed Honors Geometry with an average grade of 85 or better or Geometry with an average grade of 90 or better
2. The support of the department and the recommendation of their current teacher

#### **Honors Analysis**

1. Completed Honors Algebra II with an average grade of 85 or better or Algebra II with an average grade of 90 or better
2. The support of the department and the recommendation of the current teacher

#### **AP Calculus AB**

1. A grade of 90 or better in Honors Analysis
2. The support of the department and the recommendation of their current teacher
3. PSAT Math score of 550 or better (or an equivalent score on the SAT, Pre-ACT or ACT)

#### **AP Calculus BC**

1. Successfully completed the AP Calculus AB course by scoring 3 or better on that exam
2. The support of the department and the recommendation of their current teacher

#### **AP Statistics**

1. An interest in pursuing higher-level mathematics
2. Completed Algebra II/Trigonometry with an average of 85 or better
3. The support of the department
4. PSAT Critical Reading score of 500 or better (or an equivalent score on the SAT, Pre-ACT or ACT)

# HONORS & AP ADMISSION

## CRITERIA

### SCIENCE

The following criteria are considered for admission into Honors/AP Science courses:

#### Honors Biology and Chemistry

1. The support of the department and the recommendation of their current teacher
2. Evidence of a keen interest and strong performance in the study of science

#### AP Biology

1. Support of the department and recommendation of the current science teacher
2. Completion of both regular/Honors Biology and regular/Honors Chemistry with an average of 88 or better on each
3. PSAT Evidence-Based Reading and Writing score of 530 or better (or an equivalent score on the SAT, Pre-ACT or ACT)
4. Score > 3 on previous AP exams taken

#### AP Chemistry

1. Support of the department and recommendation of the current science teacher
2. Completion of a previous chemistry course, earning 90 or better in Chemistry or 85 or better in Honors Chemistry
3. Completion of Honors Algebra II/Trigonometry with an average of 85 or better
4. PSAT Math score of 550 or better (or an equivalent score on the Pre-ACT, SAT or ACT)
5. Score > 3 on previous AP exams taken

#### AP Environmental Science

1. Support of the department and recommendation of the current science teacher
2. Completion of Algebra II
3. Completion of Biology and Chemistry with grades of 90 or better (Honors Biology and Honors Chemistry with grades of 85 or better)
4. PSAT Evidence-Based Reading and Writing score of 550 or better (or an equivalent score on the Pre-ACT, SAT or ACT)
5. Score > 3 on previous AP exams taken

# HONORS & AP ADMISSION

## CRITERIA

### AP Physics

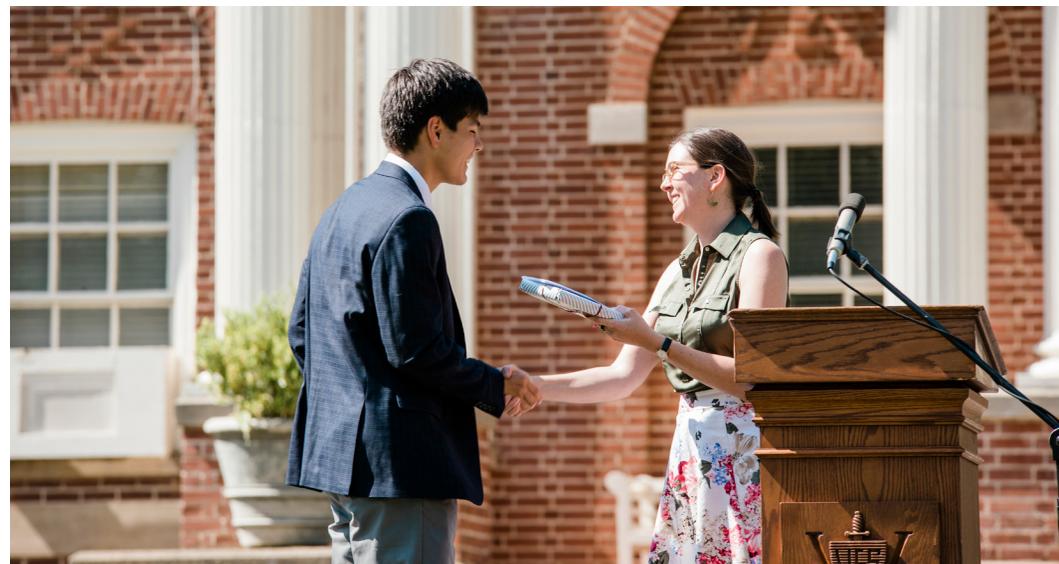
1. Support of the department and the recommendation of the current science teacher
2. Completion of Honors Algebra II/Trigonometry or Honors Math Analysis with an average grade of 85 or better and/or Algebra II/Trigonometry or Math Analysis with an average of 90 or better
3. Completion of Physics or Honors Chemistry with an average grade of 90 or better
4. PSAT math score of 550 or better (or an equivalent score on the SAT or ACT)
5. Score > 3 on previous AP exams taken

Meet all criteria—Approved

Meet 3 of 4/5 criteria—Approval Likely

Meet 2 of 4/5 criteria—Approval Unlikely

Meet < 2 of 4/5 criteria—Not Approved



# ENGLISH »



VIRGINIA EPISCOPAL SCHOOL

# ENGLISH

## COURSES

For eighteen years, Nelson Mandela was imprisoned on Robben Island, South Africa. In his possession, shared among the other prisoners, was a copy of the complete works of William Shakespeare, a *forbidden* copy of the complete works of William Shakespeare. Like all the prisoners, Mandela would secretly read from the book and even sign his name to his favorite passages. What has an anti-apartheid revolutionary to do with a son of a glovemaker, who lived on a different island, six thousand miles away and four hundred years ago? In a word, everything.

Reading and writing is dangerous - it thrills, it allures, it makes you feel alive. And that's what we want, for our students to feel alive, to pull words from the corners of themselves they haven't explored, or are scared to explore, and compress those words into charged images, metaphors, and syntactical patterns that surprise and delight.

We believe that in reading we might discover the world; and in writing, we might reintroduce the world to itself.

Literature ought to include everything, and it does at VES.

ENGLISH 9: CULTURE & IDENTITY

ENGLISH 10: COMMUNITIES & POWER

AP ENGLISH LANGUAGE & COMPOSITION

AP ENGLISH LITERATURE & COMPOSITION

ENGLISH SEMINARS

LITERATURE AS ART

EXPERIMENTAL LITERATURE: TOYS WRITERS PLAY WITH

THE UNCANNY: GOTHIC HORROR

WE MUST REMOVE THE MASK: THE ART OF THE  
PERSONAL ESSAY

ESSENTIAL JOURNEYS: EXPLORING THE WORLD  
AND THE SELF

POETRY ACROSS THE CURRICULUM

AMERICAN WRITERS

# ENGLISH

## **ENGLISH 9: CULTURE & IDENTITY**

*No prerequisite. Required of 9<sup>th</sup> grade students.*

Focused on the theme of *Culture and Identity*, students in English 9 read literature from around the world, working to understand what makes different cultures distinctive and also to see the qualities of humanity that transcend place. Students learn to read, think and write with enthusiasm and skill, and develop scholarly habits in group discussions and team projects. This course asks students to strive to ask excellent questions, think critically about themes and literary devices and express their ideas with strong supporting evidence, clarity and style. By the end of the year, students will be on their way toward mastering the analytical essay and developing their authorial voice.

## **ENGLISH 10: ETHICS, INQUIRY, AND RHETORIC**

*Prerequisite: English 9. Required of 10<sup>th</sup> grade students.*

In English 10, students will examine texts through inquiry and rhetoric. The first semester explores how learning to ask meaningful questions helps us engage with literature, our communities, and ourselves, deepening their our perspective and understanding of the human condition. Students will end the first semester by crafting their own probing questions that will be investigated throughout the second semester. The second semester will then shift toward a focus on rhetorical strategies and how students can compose powerful, persuasive writing that expresses their ideas with clarity, pathos, and original style. The year will end with a culminating project that shares the students' exploration of their question, using diverse media such as speeches, Ted Talks, and podcasts. Ultimately, students will come away with a sense of how literature helps us navigate the ethical ambiguities in the world and how writing empowers authors to influence their readers and their society.



# ENGLISH

## **AP ENGLISH LANGUAGE & COMPOSITION \***

*Prerequisites: See pages 6 - 7*

AP English Language & Composition prepares students for writing at the college level. Through extensive writing practice and reading of essays by professional writers, students will develop their own style and gain greater confidence in their ability to express themselves in writing. Students will learn various forms of composition: the definition essay, the descriptive essay, the narrative essay, the expository essay, the persuasive essay and the critical review. Students also will practice the college application essay. This course prepares students to take the AP Language & Composition exam. The primary objectives are for students to take joy in what they read and delight in what they write.

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## **AP ENGLISH LITERATURE & COMPOSITION \***

*Prerequisites: See pages 6 - 7*

The primary goal of the AP English Literature & Composition class is to develop students' abilities as independent readers and writers through a college-level course during their senior year. This course is both demanding and intellectually stimulating. It requires a student's best effort consistently and puts emphasis upon developing independence of thought and mature habits of critical thinking. Classroom discussion and active participation are vital and serve as a means of testing ideas. Written assignments, both short and long, will be an important and frequent feature of the course. Selected pieces are both canonical and modern fiction and poetry, concentrating on learning to encounter new works and respond in an informed voice.

*\* Students are required to take the AP exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

## **ENGLISH SEMINARS**

*These elective courses are open to 11<sup>th</sup> and 12<sup>th</sup> grade students. Students in the AP English track may take a seminar as a second English course with the approval of the administration, the department and their advisor.*

### **LITERATURE AS ART**

This course is designed to explore literary greats and consider how those greats influence media and popular culture. Students will learn literary analysis skills and apply these skills to literature and text. We begin by reading the text and discussing themes and literary devices at work. Then, we will watch the modern film version and discuss these themes and literary devices again. After each unit, students will complete an analytical essay, a creative writing assignment or a project-based assignment. Examples of literature we will study are Mary Shelly's *Frankenstein* and Tim Burton's *Frankenweenie*, Shakespeare's *Hamlet* and Disney's *The Lion King*.

# ENGLISH

## **EXPERIMENTAL LITERATURE: TOYS WRITERS PLAY WITH**

*(like ending things with a preposition)*

Experimental Literature is a writing intensive course designed to introduce students to the myriad ways in which writers have made evolutionary leaps with the written word. Prompted by daily selections (or whole pieces) of canonical works, spreading from early civilization to the current age, students will use these models in their own creative work of prose. The course hopes to be an antidote to the habitual ways of perception. To that end, the goal for the class is to compose a *Roman à Clef*. This is a work where real people and life are disguised as fiction. It means “a novel with a key.” Of course, this class does not expect you to write a novel. You will be writing a novella. A novella is typically 20,000-40,000 words. A novel is over 40,000. Don't be too intimidated by those numbers. We will write every day and it adds up. You can do as little as an average 100 words a day and still hit the mark. This paragraph alone has 165 words. Wait, 171. 173. . .

## **THE UNCANNY: GOTHIC HORROR**

“I recognize terror as the finest emotion.” – Stephen King. Why do people love telling ghost stories around a campfire? Go see horror movies? Ride rollercoasters? In this course we will explore the horror genre and ask why would anyone want to be scared on purpose. And why would they view being scared as entertaining, even enjoyable? Part English, part Film Studies, part Psychology class, in this course, we will read books such as *Dracula* and the *Zombie Survival Guide*, watch movies such as *The Shining* and *Silence of the Lambs* and discuss how they represent humanity's needs and fears, and reflect cultural and social issues. We will create psychology experiments to discover the underpinnings of human emotions such as fear, revulsion, and horror. We'll explore haunted houses, amusement park rides and interview people who love them and create them. Finally, we will try our own hand at creating really scary stories of our own.

## **WE MUST REMOVE THE MASK: THE ART OF THE PERSONAL ESSAY**

Michel De Montaigne, the true creator of the “essay,” forged the form in spirit rather than application, not as a means to create a genre, or contribute to one, but as a means to practice in the act of being human—as in to “try,” or “attempt,” through written utterance, to unify experience. For high school students, this spirit is dead. “Essay” for you likely means something soulessly academic, a box to check as empty as the voice that could inhabit your written musings. This course is designed to resurrect a spirit perhaps you didn't know existed. This course is designed for you to write to feel alive.

# ENGLISH

## ESSENTIAL JOURNEYS: EXPLORING THE WORLD AND THE SELF

According to fantasy author Philip Pullman, “After nourishment, shelter and companionship, stories are the thing we need most in the world.” This course explores the ancient art of storytelling and examines the reasons why humans are so driven to tell stories. Students will read some of the world’s oldest recorded stories as well as more modern texts, examining the narrative patterns, archetypal characters, and essential themes that resurface in stories across time and place. We’ll see how these stories of physical adventure and emotional conflict tackle the greatest questions of our existence: Who are we? Why are we here? What do we value? And how do we live a meaningful life? Throughout the course, students will write critical essays, creative myths, and personal journals. The course will end in a final research project where students will analyze current media of their choice (movies, songs, video games, graphic novels, etc.) to see how they engage with the foundational storytelling patterns and techniques we’ve been exploring throughout the course. Texts for this course include *The Odyssey*, *The Epic of Gilgamesh*, *The Bible* (excerpts), *Twelfth Night*, *The Life of Pi*, and *Their Eyes Were Watching God*. Film screenings may include *Star Wars*, *The Lord of the Rings*, *Shakespeare in Love*, *Jesus Christ Superstar*, and *O Brother, Where Art Thou?*

## POETRY ACROSS THE CURRICULUM

This is not exactly an academic exploration of poetry; this is a full immersion into the life of writing poetry. In this class, we write poems. Period. Whether you think yourself a poet or not, you are one if you are enrolled. But we don’t write poems blindly. Each poem we write comes from the discussion we have of someone else’s poem, and these poems are far-reaching—some old, some current, some traditional, some experimental, some canonical, some heretical. The goal, for all in the class, as the year comes to a close, is to have at least one original poem published in a literary journal.

## AMERICAN WRITERS

How do you see yourself? How do you see your world? What is your journey? Throughout our 400-year history, Americans have explored these questions and come up with many different answers. Maybe you see the world as a logical place, like Ben Franklin. Maybe it’s the beautiful place Thoreau discovered. Or a sentimental one like Harriet Jacobs wrote about. Perhaps you see the gritty world of a *Streetcar Named Desire*. Or you will find a place to reinvent yourself like in *The Great Gatsby*. In American Writers, we are going to explore a small part of the American literary experience. We will hear and read ideas that inspire us, that trouble us, that provoke us. By considering these ideas, we will consider ourselves and how we fit into (or don’t fit into) the “American” landscape. We wrap up the course by writing our own autobiography.



Flannery's Feather  
The High School for the Deaf...  
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# HISTORY

PATIENT H.M.  
HITCH

# HISTORY

## COURSES

The History department is dedicated to developing critical, independent thought and expression among its students through a progressive and developmental sequence of courses. Faculty focus on preparing students for the challenges of a university education: reading texts, implementing strategies for note-taking, and writing critical essays and research papers. The skills required for each course in our curriculum build on those learned in prior courses.

Teachers and students form strong relationships in the History department as a result of optimal student-to-teacher ratios and small class sizes. The Hopkins Writing Center houses our faculty offices and provides a meeting place for students and teachers to work with one another.

Students are required to complete three years of history for graduation. Most students take Global Cultures in ninth grade, followed by Modern World History or US Government and Politics, US History, then senior electives including other options like Economics. Advanced Placement courses are offered in World History, US History, US Government and Politics, and Comparative Government and Politics.

After completing the sequence of courses in the History curriculum, students should understand the motives and ideas of historical figures and events, which will help them think critically and create logical and coherent arguments in their work in college and life.

GLOBAL CULTURES

MODERN WORLD HISTORY

AP WORLD HISTORY: MODERN

UNITED STATES HISTORY

AP US HISTORY

US GOVERNMENT & POLITICS

AP US GOVERNMENT & POLITICS

AP COMPARATIVE GOVERNMENT & POLITICS

INTERNATIONAL RELATIONS

ECONOMICS

LEGAL STUDIES

GENDER & ETHNIC STUDIES

INTRODUCTION TO PSYCHOLOGY

# HISTORY

## **GLOBAL CULTURES**

*No prerequisite. Required of 9<sup>th</sup> grade students. A limited number of 10<sup>th</sup> grade students have taken this course by student request with permission of the Department Chair.*

In this course students learn about the history of the world from the beginning of civilization to the Renaissance through different global spheres: Europe, the Middle East, Africa, India, East Asia and the Americas. Content is taught through themes, including: What does it mean to be civilized? How do themes such as law, military, freedom, wealth and piety influence cultures? Why do cultures in different areas differ? Why are they similar?

The course further develops the academic skills and critical and independent thinking necessary for success in a college-preparatory environment. In addition to a common text, students read primary and secondary sources, conduct their own research on smaller and larger research projects and write persuasive essays. Course activities are designed to facilitate discussion among classmates and an understanding of the issues across the world in the past and present.

## **MODERN WORLD HISTORY**

*No prerequisite. Requirements: Students must be in the 10<sup>th</sup> grade to take the course.*

This course will continue to study topics introduced in the 9<sup>th</sup> grade Global Cultures course, and offers a survey of the Modern World. After a study of the Enlightenment, students will study the Age of Napoleon and the implementation (and failed implementation) of many of these ideas. Afterward, students will study changes brought about by industrialization, the changes of relationships between European and non-European nations, and how resulting nationalist pride begins a cause and effect that results in World War, economic and political instability, another World War and a resulting Cold War. Yet the truly modern aspect of the course examines how changes from war and suffering result in greater rights for individuals, the desire and need for stability in life, and how some populations succeed in a post-war capitalist society. At the center of this course will be a guiding question: *What makes a modern nation, and how does this impact the relationship between people and the government?* A key aspect of this course includes connections across English and History departments. This course will continue to build common skills across both departments.

# HISTORY

## **AP WORLD HISTORY: MODERN**

*Prerequisites: See pages 6, 8*

This course will generally follow the prescribed AP World History: Modern College Board curriculum guideline, spanning from c. 1200 CE to the present day through an investigation of significant events, individuals, developments and processes through analyzing historical sources and evidence, making historical connections, inducing chronological reasoning, and creating and supporting a historical argument. As this is an Advanced Placement course, there will be considerable depth and breath in covered content, and thus the pace of the course will move quickly. Students will be prepared to take the AP exam in World History at year's end, although the course will not be specifically taught to this exam.

*Underclassmen are required to take the AP exam.*

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## **US HISTORY**

*Required of all 11<sup>th</sup> grade students not taking AP US History*

United States History is a thorough course, ranging from the late prehistoric period through the beginning of the 21<sup>st</sup> century. The course covers traditional political and diplomatic history, as well as social, economic and cultural history. Major themes covered include, but are not limited to, exploration and colonialism, the early Republic, the causes and history of the Civil War, Reconstruction, industrialization and immigration, Populism and Progressivism, Imperialism, World War I, the Great Depression and the New Deal, World War II, the Cold War, civil rights and Vietnam, Liberalism and the "New Conservatism," and the Clinton-Bush period. United States History is required for graduation.

## **AP US HISTORY**

*Prerequisites: See pages 6, 9*

AP US History is a college-paced survey of American History from 1607 to the present. While preparing for the AP exam is one of the goals, we hope to create an experience that brings relevance of American history to the lives of students. Students will learn solid communication skills through appropriate and effective analytical writing, public speaking and discussion opportunities, blogging and the basics of media literacy. Students also will gain a firm understanding of America's past, place in the world and how this relates to their lives regardless of where they were born.

*Underclassmen are required to take the AP exam.*

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## **US GOVERNMENT & POLITICS**

*Prerequisites: US History or AP US History*

Students are given an introduction to the functions, powers and properties of the American governmental system. Particular emphasis is placed on how the government has functioned from its founding to the present. Topics covered throughout the year include the inner workings of federalism, checks and balances, civil rights and national security. Through assigned readings, campaign ads and Supreme Court cases, students explore and analyze foundational elements of the American government, giving them the knowledge and skills necessary to become engaged citizens of America and the world in the 21<sup>st</sup> century.

# HISTORY

## **AP US GOVERNMENT & POLITICS \***

*Prerequisites: See pages 6, 9*

AP US Government & Politics abides by the rubrics set forth by the College Board. This course begins with a focus on the theories of government and the creation of the United States Constitution, separation of powers, and the system of federalism. Additional areas of focus include linkage institutions such as political parties, campaigns and elections, interest groups, and the media, the three branches of American federal government and its bureaucracy, an understanding of civil liberties and civil rights, and how these structures and institutions affect public policy.

## **AP COMPARATIVE GOVERNMENT & POLITICS \***

*Prerequisites: See pages 6, 9*

This College Board-approved interdisciplinary (Political Science and History) course examines the political institutions and processes of six different countries—China, Iran, Mexico, Nigeria, Russia, and the United Kingdom—and compares the ways they address problems. Students learn essential social and data science analysis skills alongside traditional historical thinking and communication practices to draw conclusions about political systems. The course is divided into 5 units where students learn how to think, research, and communicate using political science and history best practices.

*\*Underclassmen are required to take the AP exam. Seniors are required to take the exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

## **INTERNATIONAL RELATIONS**

*Open to 12<sup>th</sup> grade students and selected 11<sup>th</sup> graders who need a fifth full-year course or have a desire to pursue an international relations degree in college*

This course will introduce students to the academic discussion about contemporary world politics. This field aims to provide meaningful discourse and to critically examine contrasting international relations theories in order to explain both the historical and modern context of foreign policies. Students will be introduced to traditional realist, constructivist, and liberal theories, as well as key concepts pertaining to state behavior. Why do states behave the way they do? What drives states to join international organizations such as NATO or the UN? How do issues of nuclear proliferation, climate change, human rights/security, globalization, migration, national security, and sports, affect international diplomacy? These central questions offer students a survey into the world in the global context of the 20<sup>th</sup> century and help them to identify the distinguishing characteristics of the unfolding global order of the 21<sup>st</sup> century.

## **ECONOMICS**

*Open to 12<sup>th</sup> grade students and selected 11<sup>th</sup> graders who need a fifth full-year course or have a desire to pursue an economics degree in college*

This course is designed to provide students with an introduction to microeconomics, macroeconomics and business-related fields associated with an economics degree. The class emphasizes skill development such as note taking, reading a college-level text, the application of charts and graphs, and writing essays. In addition, the class incorporates numerous project-based learning assignments that require students to use technology in and outside of the classroom as a means for providing materials necessary for completing the project. The underlying purpose of the course is to give the students an emphasis on the application of theory and principle to contemporary business and consumer practices.

# HISTORY

## LEGAL STUDIES

*Open to 11<sup>th</sup> and 12<sup>th</sup> grade students*

Legal Studies introduces students to a few of the many facets of law in the United States, such as Criminal, Civil, Family, and Contracts law. As critical reading, writing and argument development are important in the legal profession, Legal Studies students focus on developing these skills through case reading, brief writing and fact patterns. This class also emphasizes experiential learning as students step into mock trials, prepare for and argue cases, negotiate contracts, and view local legal proceedings when available. Students learn what the law is like and gain a glimpse into the legal profession to identify a possible future career path.

## INTRODUCTION TO PSYCHOLOGY

*Open to 12<sup>th</sup> grade students and selected 11<sup>th</sup> graders who need a fifth full-year course or have a desire to pursue a psychology degree in college*

This course examines the human mind and human behavior. Students will explore the different models upon which modern psychology has been built, along with such things as the history and origins of psychology, research methods, human development, and psychological disorders. The course will engage students with thought-provoking questions, meaningful conversations, and projects that cover a broad spectrum of learning capabilities designed to prepare students for their future away from VES by understanding the basics of psychology and how to apply it to the real world.

## GENDER & ETHNIC STUDIES

*Prerequisites: Completion of or current enrollment in Modern World History or an equivalent course*

This course is unconventional in its aim to center the experiences of those who have traditionally been pushed to the margins. Understanding historical systems of privilege and oppression will be key to learning about how racism, sexism, heterosexism and class privilege can become pervasive in society. Students will immerse themselves in scholarship written by authors of diverse racial and cultural backgrounds to gain deeper understanding of how different communities interact with law enforcement, educational institutions and justice systems. Furthermore, understanding theories on gender, sexuality and intersectionality will enhance students' perspectives on how identity plays an important role in the creation of social hierarchies. Topics may include but are not limited to mass incarceration, immigration policy, school-to-prison pipeline, wealth distribution and social movements. In taking this class, students will identify one particular topic of interest and use it to design a semester-long or year-long research project that may be shared with the entire community.

## LEADERSHIP SEMINAR

The course will provide the basis for the development of effective leadership and managerial competence. With a focus on interactive learning, case studies, and prevalent leadership theory, this course examines fundamental tenets of leadership and management in the context of the theories and principles of individual and group leadership with emphasis on how they apply in today's world. Topics include self-leadership, self-management, and team leadership while students refine and further develop their understanding of personal strengths, values, and growth opportunities in the context of team, group, and organizational leadership. Students will develop knowledge, abilities, and skills that will assist them as future leaders to successfully operate in the complex socio-economic environments around the globe.



**MATHEMATICS** >>>

VIRGINIA EPISCOPAL SCHOOL

# MATHEMATICS

COURSES

Our Math classes focus on the exploration of mathematical topics to develop logical reasoning, critical thinking, and analytical skills in our students. In each course, students will be investigating, predicting, calculating, analyzing, verifying, problem-solving, and presenting results. We place value on academic risk-taking and the productive struggle that takes place during learning in order to empower students to become curious, innovative thinkers and producers.

ALGEBRA I

GEOMETRY

HONORS GEOMETRY

ALGEBRA II / TRIGONOMETRY

HONORS ALGEBRA II / TRIGONOMETRY MATH

ANALYSIS

HONORS MATH ANALYSIS

STATISTICS

AP STATISTICS

CALCULUS

AP CALCULUS AB

AP CALCULUS BC

MULTIVARIABLE & VECTOR CALCULUS

DIFFERENTIAL EQUATIONS & LINEAR ALGEBRA

SCIENCE & MATH ADVANCED CONSORTIUM

# MATHEMATICS

## **ALGEBRA 1**

*No prerequisite*

Algebra I, the introduction to mathematics at VES, is a vast world of functions, graphs and the fascinating exploration of numbers and their invaluable uses and qualities. The course seeks to develop a facility in working with numbers, variables, graphs, inequalities, tables and various equations. Particular emphasis is placed on solving word problems and reading questions carefully. This process helps build algebraic skills and strengthens the understanding of needing to solve problems in a context, rather than from drill and practice alone. Topics include the study of equations and graphs (linear and quadratic), linear data versus nonlinear data, exponents, inequalities, radicals, solving fractional equations, special products and factoring.

## **GEOMETRY**

*Prerequisite: Algebra I or permission of the Department Chair*

This course is designed to integrate algebra with the foundations of geometry. Topics include, but are not limited to angles, triangle congruences, parallel lines, polygons and polyhedrons, area, volume, circles and spheres, similarity, right triangle trigonometry and transformations. Independent thinking and discovery are encouraged throughout the course, as well as the study of and defending geometric proofs. This course seeks to demonstrate math's usefulness and encourages students to see connections to real-world problems. Problem solving, logical reasoning and critical thinking skills will be emphasized through the use of cooperative learning, manipulatives and technology.

## **HONORS GEOMETRY**

*Prerequisite: Algebra I or permission of the Department Chair*

The study of Honors Geometry encompasses far more than its definitions, postulates, and theorems. Students will consistently be challenged to reason analytically. The process of formal proof is emphasized early in the course, and direct proofs are investigated extensively. Proofs include parallel and perpendicular lines, congruent triangles, parallelograms, and geometric inequalities. Emphasis is also placed on applications. Topics include circles, right triangle trigonometry, coordinate geometry, areas, and volumes. Technology is used to model and explore the geometry presented within the course.

## **ALGEBRA II / TRIGONOMETRY**

*Prerequisite: Algebra I and Geometry or permission of the Department Chair*

This course provides an extension of the basic algebraic concepts from Algebra I and Geometry. Students discuss, represent, and solve increasingly sophisticated problems using more advanced algebraic techniques, bringing opportunities for doing mathematics into focus. Incorporating appropriate technology, they study the properties and algebra of quadratic, exponential, logarithmic, and rational functions, systems of equations, and inequalities, and applied right triangle trigonometry. This course provides a sound understanding of basic linear, polynomial, and trigonometric functions.

# MATHEMATICS

## **HONORS ALGEBRA II / TRIGONOMETRY**

*Prerequisite: Honors Geometry or permission of the Department Chair*

The main topics of Honors Algebra II / Trigonometry are basic number theory, algebraic properties and proofs, formal notation, word problems, and applying the algorithms used to solve them. As the course progresses, students solve higher-order equations, polynomial, logarithmic, and exponential functions and work with more extensive word problem applications. The trigonometry section of the course focuses on radian and degree trigonometric concepts including basic right triangle trigonometry, the unit circle, graphs of trigonometric functions, and word problems and applications.

## **MATH ANALYSIS**

*Prerequisite: Algebra II / Trigonometry*

Math Analysis helps students understand the fundamental concepts of algebra, trigonometry, and analytic geometry. Topics covered in this course are the study of functions (polynomial, rational, trigonometric, exponential, and logarithmic), systems of equations and inequalities, and solving triangles in anticipation of the student continuing to AP Statistics, Calculus, or a post-secondary mathematics course.

A balance is maintained among the algebraic, numerical, graphical, and verbal methods of representing problems and solutions. Students use technology to visualize topics from numerical and graphical representations.

## **HONORS MATH ANALYSIS**

*Prerequisite: Algebra II / Trigonometry or permission of the Department Chair*

The mathematical spectrum heightens as students enter into the world of honors analysis. This course is aimed at those who have demonstrated mathematical ability in their previous coursework to prepare them for Advanced Placement Calculus or college mathematics the following year. The first term begins with an emphasis on mathematical reasoning with a specific focus on general functions and their properties. After a guided tour of the functions, students begin to explore the concepts of complex numbers, exponential and logarithmic functions, polynomial and trigonometric functions, and as time permits, sequences and series.

## **STATISTICS**

*Prerequisite: Algebra II / Trigonometry or permission of the Department Chair*

The course concentrates on application rather than formal theory. Students learn to formulate questions that can be addressed with data, and to collect, organize and display relevant data to answer them. They learn to select and use appropriate statistical methods. Students develop and evaluate inferences and predictions, and apply basic concepts of probability.

# MATHEMATICS

## **AP STATISTICS \***

*Prerequisites: See pages 6, 10*

Statistics is the most widely applicable branch of mathematics, used by more people than any other kind of math both in the workplace and by consumers. Students study lists of raw data, graphical displays and charts, rates, probabilities, percentages, averages, forecasts and trend lines. Advanced Placement Statistics provides the opportunity for students to acquire statistical literacy. This course is designed to be the equivalent of an introductory college-level Statistics course. The syllabus has been constructed under the guidelines of the College Board and will prepare the student to take the Advanced Placement examination in the spring.

## **CALCULUS**

*Prerequisite: Math Analysis or permission of the Department Chair*

Students learn the mechanics behind solving derivatives and integrals both by hand and using a graphing calculator. Interspersed among the lessons throughout the year are applications of the course material in the form of physical motion, product package design, architecture, finance, flowing water, medication, populations, swings, springs, see-saws, police radars, wrecking balls, balloons, ballistics, bacteria and rocket science, to name a few. This is not a class about theorems or mathematical rigor as is the AP Calculus class, but is an excellent basis for college calculus.

## **AP CALCULUS AB \***

*Prerequisites: See pages 6, 10*

This is a rigorous course aimed at building a strong foundation in differential and integral calculus along with its various applications. Topics include the study of limits and continuity, differentiation and integration of polynomial, logarithmic, exponential, and trigonometric functions. Various applications of these topics are studied, including position, velocity, acceleration, optimization, related rates, accumulation, slope fields, exponential growth and decay, and area and volume. Techniques of integration also are studied with a particular emphasis placed on the fundamental theorem of calculus and its applications. The course prepares students for the College Board AP examination and their continued study of mathematics in AP Calculus BC, or a course at college and provides the potential for students to begin their college mathematics at a more advanced level of calculus.

## **AP CALCULUS BC \***

*Prerequisites: See pages 6, 10*

This course is highly rigorous and aimed at building a strong foundation in differential and integral calculus, along with its various applications. The curriculum includes all of the material covered in the AP Calculus AB course, with more emphasis on the underlying proofs. Additional topics include the study of Euler's method, logistical growth models, integration by parts, partial fractions, volumes by cylindrical shells, arc length and indeterminate forms. Focus is put upon polynomial approximations and series (Taylor and Maclaurin), as well as polar, parametric and vector functions and the analysis of planar curves. Students prepare for the College Board AP examination, and have the potential to begin their college mathematics at a significantly more advanced level of calculus.

*\* Underclassmen are required to take the AP exam. Seniors are required to take the exam, although an exemption may be obtained from the College Counseling Office. (Aside from potentially receiving college credit, exam scores can provide useful information for selection and placement in post-VES math courses.)*

# MATHEMATICS

## **MULTIVARIABLE & VECTOR CALCULUS**

*Prerequisite: AP Calculus BC with a score of 3 or higher on the AP Calculus exam and permission of the Department Chair*

The course begins with a thorough review of analytic geometry, polar coordinates and parametric equations, then proceeds to vectors in both 2-space and 3-space. The topics include tangent and normal vectors, curvature, dot product, cross product, curves and planes in 3-space and quadric surfaces. Further topics include the analysis of cylindrical and spherical coordinates, partial derivatives, gradients, directional derivatives, and double and triple integrals. Stokes' and Green's theorems as well as the related underpinnings of vector theory will be discussed and studied as time permits.

## **DIFFERENTIAL EQUATIONS & LINEAR ALGEBRA**

*Prerequisite: Multivariable Calculus, AP Calculus BC with a score of 3 or higher on the AP Calculus exam, and permission of the Department Chair*

The course will focus on extending the concepts of Multivariable Calculus and cover topics including vector functions, multivariate functions, multiple integrals, introduction to vector calculus, differential equations, and linear algebra. (A detailed bulleted list of course objectives is attached as an addendum). Assessments will be quizzes, tests, and when possible, projects depending on the Unit. Differential Equations and Linear Algebra will present interesting and challenging material for the student who has completed the Calculus curriculum and desires even more advanced mathematical coursework at VES.

## **SCIENCE & MATH ADVANCED CONSORTIUM**

*Prerequisite: Open to a limited number of seniors who have completed and excelled in at least one AP Science and/or AP Mathematics course. Tests scores (standardized and AP), grades, interview, essay, teacher recommendations and transcript rigor are all factors in the application process.*

A year-long core academic class that seeks to provide rigorous interdisciplinary study in a collaborative and project-based setting, this class quickly becomes a student-driven format with significant critical thinking applied throughout the course.

First semester topics include Team Building, Effective Collaboration, Learning Styles, Analysis, Methodology, Innovation and Design Thinking as well as day-long mini projects and three team-based collaborative projects with presentations. Second semester is designed around a thesis project that is significant in scale, interdisciplinary in nature, and collaborative in format. Teams work toward creating a significant document and large-scale presentation that will be delivered to both small and large panels. Teams build a website to track and display their project and a physical design model or equivalent display (ex., a piece of music, a computer program, etc.) depending on each individual project's aim and components. Clearly defined individual roles will be identified in all facets of the project, while ensuring a collaborative approach among the team throughout the venture.



**SCIENCE** >>

# SCIENCE

## COURSES

Science is everywhere. Our students begin with the notion that the fundamental systems that guide our world and society build upon each other and are reinforced by our actions. Students develop a deep understanding of the interconnectedness of the principles that govern the universe within a broader ethical vision of society in which rationality is used for the mutual benefit of all. As citizens of a world where every personal decision has influence far beyond the individual, we aim to provide students with the skills and knowledge they need to live their lives in a way that best serves themselves, their community, and our world.

Our Science department fosters curiosity about the world and creates students able to succeed in future scientific study. Through discussions, active discovery, experiments and group projects, we encourage our students to think, take intellectual risks and try, even if the outcome leads them to revise their understanding. Our students learn to work together, respect each other's ideas and talents, and celebrate the camaraderie and success that comes with like minds involved in critical thinking and problem solving.

Most students begin with the study of Biology and advance to Chemistry as their mathematical proficiency increases. After the first two years of study, their interest and skills guide them as they explore the wide range of science courses offered.

BIOLOGY

HONORS BIOLOGY

AP BIOLOGY

CHEMISTRY

HONORS CHEMISTRY

AP CHEMISTRY

HUMAN ANATOMY & PHYSIOLOGY

PHYSICS

AP PHYSICS

AP ENVIRONMENTAL SCIENCE

SCIENCE & MATH ADVANCED CONSORTIUM

INTRODUCTION TO SPORTS MEDICINE

# SCIENCE

## **BIOLOGY**

*No prerequisite. Open to all who have not already taken Biology, mainly students in grades 9 and 10.*

In Biology, students explore the fundamental structures of life, beginning with the principles that control atoms and molecules and building upon those principles as they journey through cells, genetics, the evolution of living organisms and culminating with the complexity of the human body. In the lab, students improve their observation skills and learn to use the scientific method to analyze complex natural systems and a variety of organisms. Students improve study habits and develop the critical thinking skills necessary to grasp intricate biological concepts.

## **HONORS BIOLOGY**

*Prerequisites: Algebra I and success in previous science courses*

Honors Biology is an introduction to the study of living things and their interdependence with other organisms and their environment. Upon completion of this course, students should have gained an understanding of basic biological concepts. Topics to be covered include biochemistry, cells, metabolism, genetics, evolution, nucleic acid synthesis and function, and plant biology. Regular work in the laboratory, along with analysis of results and formal presentation of findings, will be an important component of this course.

## **AP BIOLOGY**

*Prerequisites: See pages 6, 11*

Students are guided through an exploration of the recurring themes of biological processes in the equivalent of a college introductory Biology course. By making connections among biological principles, complex topics are simplified. For instance, the large area of respiratory surfaces serves the same function as the highly convoluted inner mitochondrial membrane—more space to do cellular work. Students also are required to put their knowledge into practice through review and discussion of current scientific findings. Learning is reinforced with demonstrations, animations, simulations and labs. Topics covered include biochemistry, cell structure and function, energetics, heredity, molecular genetics, DNA technology, evolutionary biology, diversity of life, human biology, plant biology and ecology.

*Underclassmen are required to take the AP exam. Seniors are required to take the exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

# SCIENCE

## CHEMISTRY

*Prerequisite: Successful completion of Biology. Open to all grade levels, mainly students in grades 10 and 11.*

Students studying chemistry examine the makeup of all atomic and molecular forms of matter and the laws that guide matter's interactions. This allows students to understand some of nature's seemingly magical transformations, like the fact that two caustic and volatile substances such as chlorine and sodium combine to form a fundamental requirement for human life—salt. To build on these fundamental principles, students develop mathematical tools that allow them to predict how matter will behave. Through strengthening their mathematical skills, students gain confidence in their ability to grasp complex chemical concepts. In the lab, students practice the principles of scientific research as they conduct various experiments, collect data, and report their findings.

## HONORS CHEMISTRY

*Prerequisite: Completion of Biology (90% or better) or Honors Biology (85% or better)*

In Honors Chemistry, students examine the makeup of all atomic, elemental, and molecular forms of matter and the laws that guide matter's interactions. They develop an understanding of atomic structure and the elemental properties that arise from that structure, recognizing the patterns and distinctions between materials. Understanding fundamental principles of the universe like the electric force between charges and conservation of matter, honors students learn to predict the outcome of complex chemical reactions. Students also calculate the required amounts of reactants and the expected amounts of products using stoichiometry. In the lab, students use various methods to analyze compounds. Additionally, students will create their own hypotheses and will design experiments to test these predictions, and will refine their understanding of results through data analysis.

## AP CHEMISTRY

*Prerequisites: See pages 6, 11*

Advanced Placement Chemistry covers many topics from previous studies in greater detail and new subjects are explored. Particular attention is placed on predicting if a reaction will happen and why some reactions, like rusting, are terribly slow, while other reactions, like the explosion of dynamite, are incredibly fast. Problem-solving skills will develop significantly as students answer complex and multi-layered problems. Laboratory experiments require students to master lab techniques and to properly use various pieces of lab equipment. Students will be challenged to empirically analyze the results and explain sources of error in experiments. The work and level of thinking required in AP Chemistry are equivalent to that required in a college-level class.

*Underclassmen are required to take the exam. Seniors are required to take the AP exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

# SCIENCE

## **HUMAN ANATOMY & PHYSIOLOGY**

*Prerequisite: Successful completion of Biology/Honors Biology and Chemistry/Honors Chemistry. Open to students in grades 11 and 12.*

This course is designed to provide students a detailed and comprehensive look at the human form and its individual systems (anatomy) as well as how those systems function physically, mechanically and biochemically (physiology). Students will learn more than just the bones and muscles of the human body. It is our goal that students gain a strong understanding of each of the body's systems as well as a familiarity of how the body moves, responds to stimuli and deals with adversity in the form of injury, infection and disease. As part of the bodies total functioning, some basic nutrition and exercise information will be discussed.

## **MODERN PHYSICS**

The purpose of this course is to provide another physics option for all students. It would be an ideal course for a student that took the current physics course (which will be referred to as Newtonian Physics), enjoyed the class but is not ready for or particularly interested in AP Physics 1. Because this course focuses on topics that are less math-intensive, it is also ideal for a student who wants to take or needs to take physics but doesn't have the requisite algebra or trig skills to find success in Newtonian Physics. Additionally, if a student took AP physics their junior year, this class could be an option for them their senior year, particularly if it was taken concurrently with another AP science course.

Modern Physics will cover the areas of physics beyond classical mechanics and Newtonian physics. The goal of the course is to show students the breadth of physics and will include topics beyond what is taught in a typical high school science course. Each semester will cover one major topic and at least two minor topics.

## **PHYSICS**

*Prerequisite: Algebra II. Open to students in grades 10 through 12.*

In Physics, students explore the fundamental laws of the universe. They refine their algebraic abilities as they learn problem-solving techniques that apply to many scenarios and translate to many others, including a water balloon launched out of a slingshot, a rollercoaster rounding a loop, a sound wave striking the eardrum, a beam of light bouncing through fiber optic cable, a light bulb in an electric circuit and an electromagnetic motor. Toward the end of the year, students research the physics involved in any topic they choose and present their findings to the class. Students develop self-confidence in their ability to effectively retain challenging material, and they strengthen critical thinking skills through engaging classroom discussion and challenging self-directed laboratories.

## **AP PHYSICS**

*Prerequisites: See pages 6, 12*

AP Physics stretches students to become self-directed learners by reinforcing skills to think critically, analyze situations and make informed connections. Students refine their ability to understand the effect a variable has on any system, conceptually and mathematically. They master fundamental principles and problem-solving techniques that, when applied appropriately, help them solve any physical problem. Whether designing and building a soda can barge, determining the coefficient of friction for a material or predicting the motion of a charged particle in a magnetic field, students expand their abilities in creative problem-solving and experimental design as they explore the first semester of introductory algebra-based, college-level Physics.

*Underclassmen are required to take the AP exam.*

*Seniors are required to take the exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

# SCIENCE

## AP ENVIRONMENTAL SCIENCE

*Prerequisites: See pages 6, 11*

This course is designed to give students a diverse view of how our natural world affects us as individuals, as a species and all organisms as a planetary whole. The interconnection of organisms, environments and the systems of each are central to our understanding of how to best live within the natural world, not control it. We will cover many diverse topics ranging from the scientific, at a micro and macro scale, to data gathering and analysis, to US and world government policies and our own morality, role and responsibilities as inhabitants of this planet.

*Underclassmen are required to take the AP exam. Seniors are required to take the exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

## BIOMEDICAL SCIENCE

This course provides foundational knowledge and skills in biology, anatomy & physiology, genetics, microbiology, and epidemiology. It engages students in how this content can be applied to real-world situations, cases, and problems. Students will tackle real-world challenges biomedical professionals face through individual and collaborative team activities, projects, and issues. They will work with the same tools and equipment used in hospitals and labs as they engage in relevant hands-on work. Students will develop skills in technical documentation to represent and communicate experimental findings and solutions to problems. In addition, students will explore how connections to other disciplines such as computer science and engineering, shape the future of medicine and practice collaboration techniques that will help them connect with professionals across any field.



# SCIENCE

## SCIENCE & MATH ADVANCED CONSORTIUM

*Open to a limited number of seniors who have completed and excelled in at least one AP Science and/or AP Mathematics course. Tests scores (standardized and AP), grades, interview, essay, teacher recommendations and transcript rigor are all factors in the application process.*

A year-long core academic class that seeks to provide rigorous interdisciplinary study in a collaborative and project-based setting, this class quickly becomes a student-driven format with significant critical thinking applied throughout the course.

First semester topics include Team Building, Effective Collaboration, Learning Styles, Analysis, Methodology, Innovation and Design Thinking as well as day-long mini projects and three team-based collaborative projects with presentations. Second semester is designed around a thesis project that is significant in scale, interdisciplinary in nature, and collaborative in format. Teams work toward creating a significant document and large-scale presentation that will be delivered to both small and large panels. Teams build a website to track and display their project and a physical design model or equivalent display (ex., a piece of music, a computer program, etc.) depending on each individual project's aim and components. Clearly defined individual roles will be identified in all facets of the project, while ensuring a collaborative approach among the team throughout the venture.

## INTRODUCTION TO SPORTS MEDICINE

*No prerequisite. Open to students in all grade levels.*

Introduction to Sports Medicine is a semester-long course that provides the student with a basic knowledge of athletic training. This course is not intended to be “all inclusive,” rather a course directed at the practical aspects of taking care of oneself. The course is designed to help students understand what their bodies are telling them when they participate in athletics. The techniques included in this course—particularly the taping, wrapping and rehabilitative exercises—expose students to the skills of athletic injury prevention.



# WORLD LANGUAGES »»



# WORLD LANGUAGES

## COURSES

While words and phrases can be learned in any number of ways, the Department of World Languages offers an authentic and playful experience within the classroom, breaking down its fourth wall. This way, not only do our students learn to confidently communicate in the target language, but they also become culturally literate in the customs and traditions of the people and places studied. We aim to engage our students through an immersive pedagogy, with real-world topics and resources in order to create life-long language learners.

The lessons of our courses are readily applicable as soon as the students leave the classroom and encounter native speakers, within the community or while traveling, adept in their target language. Francophone learners will be able to order lunch for themselves and their families at Deux Magots in Paris or ask the prices of market items on the island of Martinique. In Spanish, they might learn about Pachamanca, a Peruvian dish that is buried in a burlap sack while cooking over hot stones. When a student takes a trip to the Central Andes over Spring Break, they will knowingly anticipate a meal from the earth, a tradition that is delicious, savory and 600 years old. Erasmus once taught that in Latin you can say “thank you” in 150 different ways. We teach all our languages with the same gracious spirit.

FRENCH I - IV

AP FRENCH LANGUAGE & CULTURE

SPANISH I - IV

SPANISH III HONORS

SPANISH IV HONORS

AP SPANISH LANGUAGE & CULTURE

SPANISH V

SPANISH VI: ADVANCED SEMINAR

# WORLD LANGUAGES

## FRENCH I

*No prerequisite. Open to students in grades 9 through 12.*

French I emphasizes an integrated approach and a balanced development of the four language skills: listening, speaking, reading and writing. Instruction at the first level stresses the fundamentals of French through contextual presentation of theme-based vocabulary, grammar and verb conjugations. The textbook we use exposes students to life in contemporary France and Francophone countries. Various Internet sites, music, magazines, movies, cookbooks, comic strips and children's stories are used to facilitate the development of elementary skills by which students can listen and read in the target language. French I is designed to highlight proficiency in communication by giving students meaningful, everyday expressions they can use immediately in real-life situations.

## FRENCH II

*Prerequisites: French I or approval by the Department Chair*

The second level of French builds upon the fundamental skills learned in French I. Students study advanced grammar and idiomatic structures as well as read and write passages of increased length and difficulty. The textbook and supplementary web-based materials used in this class enhance students' cultural knowledge of real-life situations in contemporary France and Francophone countries. French II is designed to expand proficiency in communication, give students meaningful expressions they can use immediately in everyday situations and prepare them to communicate in both the spoken and written form at an intermediate level.

## FRENCH III

*Prerequisites: French II or approval by the Department Chair*

The third level of instruction is designed to teach further advanced aspects of grammar as well as to polish skills in reading, writing, listening and speaking. Through the use of a college-level textbook and corresponding web-based materials, students explore the French language through the lens of a native speaker as they are exposed to a wide variety of authentic resources and are challenged to interpret and synthesize ideas in multiple ways. Overall, the lessons learned in French III add sophistication and real-life context to students' knowledge of modern French culture, and teach them to write well-organized and substantive essays, to communicate effectively in a conversation, and to become proficient readers of French.



# WORLD LANGUAGES

## **FRENCH IV**

*Prerequisites: French III or approval by the Department Chair*

French IV is offered to students who have demonstrated continued excellence and interest in the study of French. French is used almost exclusively as a means of communication to help students transition into a college-level environment with greater ease and to prepare them for progression into the AP French Language & Culture course the following year. Students complete a thorough review of complex grammatical structures, idiomatic expressions and vocabulary as well as explore a variety of historical, political, literary and cultural movements in Francophone countries around the world. A college-level text is used, supplemented by a variety of web-based materials and authentic resources to support and guide progress. Formal and informal writing, literary analysis, organized debates, projects and conversational exchange (both prepared and spontaneous) are many of the activities used to engage students and help them to develop a greater proficiency in listening, speaking, reading and writing.

## **AP FRENCH LANGUAGE & CULTURE**

*Prerequisites: See pages 6, 8*

Centered around six overarching themes established by the College Board, the AP French Language & Culture course is designed to challenge the advanced French student to reach beyond traditional grammar and vocabulary acquisition to apply presentational, interpretive and interpersonal skills to a real-world context. Through the exclusive use of authentic resources, students broaden their understanding of the French-speaking world through the lens of native-born speakers. Through exposure to the many products, practices and perspectives that make each culture unique, students are challenged to think critically as they work to compare and contrast their own native cultures to those corresponding to Francophone countries worldwide.

The course is designed in such a way to use various literary and cinematic works to allow students to develop the three types of communication while exploring the six cultural themes. The academic year is divided into units based upon major works of literature or collections of more modern excerpts. Within each unit, students work to improve their competency through formal and informal reading, writing and listening activities.

*Underclassmen are required to take the AP exam. Seniors are required to take the exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

# WORLD LANGUAGES

## **SPANISH I**

*No prerequisite. Open to students in grades 9 through 12.*

Spanish I provides students a solid foundation in the basic structures of Spanish grammar, pronunciation and vocabulary. This knowledge is actively put into practice as students develop basic skills in written and oral communication. The course emphasizes an integrated approach and a balanced development of the four language skills: listening, speaking, reading and writing. Students also become familiar with the geography, customs and the diversity of the Spanish-speaking world. A combination of textbook and web-based materials is used to facilitate students' progress through the curriculum.

## **SPANISH II**

*Prerequisites: Spanish I or approval by the Department Chair*

Spanish II is an intermediate course in which students continue to strengthen their vocabulary, grammar and conversation skills. Students work through regular and irregular verbs in all tenses of the indicative mood, including all forms of the preterit and imperfect, as well as learn to incorporate theme-based vocabulary into both the written and oral context. Creating dialogues based on specific situations and role-playing are an important aspect of oral assessment. Students also expand their understanding of the history and culture of all Spanish-speaking countries. Spanish II is highly interactive and much of the course is conducted in Spanish. A combination of textbook and web-based materials is used to facilitate students' progress through the curriculum.

## **SPANISH III**

*Prerequisites: Spanish II or approval by the Department Chair*

Spanish III is an intermediate-level language course. The goal of this course is to bridge the gap between elementary and advanced levels in the further development of listening, speaking, reading and writing skills. Students will be encouraged to attach meaning directly to Spanish without depending on English for understanding. For this reason, Spanish will be the language used for communication at all times. Students should continue to become better learners of language by continuing to apply useful learning strategies to their work. Students conjugate regular and irregular verbs in all tenses of the indicative and subjunctive moods and all forms of the imperative mood. Authentic texts, both auditory and visual, expose students to a wider variety of cultural, political and social aspects within the Spanish-speaking world. To facilitate their learning in a variety of facets, students work from a college-level textbook and accompanying web-based materials.

# WORLD LANGUAGES

## **SPANISH III HONORS**

*Prerequisites: Spanish II, recommendation from the student's previous Spanish teacher or approval by the Department Chair. Designed for those students who have shown superior aptitude and interest in the study of Spanish.*

The goal of this course is to bridge the gap between elementary and advanced levels in the further development of listening, speaking, reading and writing skills. Students will be encouraged to attach meaning directly to Spanish without depending on English for understanding. For this reason, Spanish will be the language used for communication at all times. Students should continue to become better learners of language by continuing to apply useful learning strategies to their work. They read, write and converse in a variety of situations through the use of extensive, theme-based vocabulary and advanced grammar concepts, and learn to synthesize ideas in a variety of forms. In addition, students will be exposed to cultural, political and social information from throughout the Spanish-speaking world and will be expected to acquire an appreciation of the diversity and richness of Hispanic culture by means of directed reading assignments and creative projects. Broadening students' knowledge and exposing them to a more in-depth view into Spanish-speaking countries and their cultures is accomplished with a college-level textbook and corresponding web-based materials.

## **SPANISH IV**

*Prerequisites: Spanish III or approval from the Department Chair based on testing. Offered to students who have demonstrated continued excellence and interest in the study of Spanish.*

In this course, Spanish is used almost exclusively as a means of communication to help students transition into a college-level environment with greater ease and to prepare them for progression into the AP Spanish Language & Culture course the following year. Students complete a thorough review of complex grammatical structures, idiomatic expressions and vocabulary as well as explore a variety of historical, political, literary and cultural movements in the Spanish-speaking world. A college-level text is used, supplemented by a variety of web-based materials and authentic resources to support and guide progress. Formal and informal writing, literary analysis, organized debates, projects and conversational exchange (both prepared and spontaneous) are many of the activities used to engage students and help them to develop a greater proficiency in listening, speaking, reading and writing.

# WORLD LANGUAGES

## **SPANISH IV HONORS**

*Prerequisites: Spanish III or approval from the Department Chair based on testing. Offered to students who have demonstrated continued excellence and interest in the study of Spanish.*

In this course, Spanish is used almost exclusively as a means of communication to help students transition into a college-level environment with greater ease and to prepare them for progression into the AP Spanish Language & Culture course the following year. Students complete a thorough review of complex grammatical structures, idiomatic expressions and vocabulary as well as explore a variety of historical, political, literary and cultural movements in the Spanish-speaking world. A college-level text is used, supplemented by a variety of web-based materials and authentic resources to support and guide progress. Formal and informal writing, literary analysis, organized debates, projects and conversational exchange (both prepared and spontaneous) are many of the activities used to engage students and help them to develop a greater proficiency in listening, speaking, reading and writing.

## **AP SPANISH LANGUAGE & CULTURE**

*Prerequisites: See pages 6, 8*

Centered around six overarching themes established by the College Board, The AP Spanish Language & Culture course is designed to challenge the advanced Spanish student to reach beyond traditional grammar and vocabulary acquisition to apply presentational, interpretive and interpersonal skills to a real-world context. Through the exclusive use of authentic resources, students broaden their understanding of the Spanish-speaking world through the lens of native-born speakers. Through exposure to the many products, practices and perspectives that make each culture unique, students are challenged to think critically as they work to compare and contrast their own native cultures to those corresponding to Spanish-speaking countries worldwide.

*Underclassmen are required to take the AP exam. Seniors are required to take the exam but may apply for an exemption in consultation with the teacher and the College Counseling Office.*

# WORLD LANGUAGES

## **SPANISH V**

*Prerequisites: Spanish IV, Spanish IV Honors, or Spanish III Honors (for rising seniors only)*

Spanish V is an advanced-level language course designed to bridge the gap between intermediate and advanced levels and further students' development of listening, speaking, reading and writing skills. The main focus in the class is on culture and conversations. Students are encouraged to attach meaning directly to Spanish, without depending on English for understanding. For this reason, Spanish is the language used for communication at all times. Students should continue to become better learners of language by continuing to apply useful learning strategies to their work.

## **SPANISH VI: ADVANCED SEMINAR**

*Prerequisites: AP Spanish Language & Culture course, completion of Spanish V, or approval by the Department Chair*

A seminar-style course, this class challenges students to continue to develop second language acquisition through natural progression as they increase cultural awareness and appreciation for the rich history and culture of Spain and Latin America. The students explore a variety of authentic resources (film, poetry, prose, short novels, media, music, and art) as they work to expand their knowledge and awareness of the culture of the Spanish-speaking world. The course is centered around main themes that challenge the students to think globally and critically:

- Social issues
- Immigration
- Women's rights and the female "voice" in Latin American society
- Drug trafficking
- Revolutions, dictatorships and political regimes

Through class debates and discussions, students continue to expand and develop their interpersonal communication skills. The hope is for students to become more proficient in each of the four key components of second language acquisition (reading, writing, speaking and listening) while developing a more advanced ability to synthesize what they have learned for a broader and more complex understanding of the world in which they live. Students analyze Latin American literary excerpts, current events and contemporary cinema and use their discoveries as the basis for active class discussion, presentation and composition.

# THE ARTS >>>



VIRGINIA EPISCOPAL SCHOOL

# THE ARTS

## COURSES

The Dead Leaf is a butterfly that possesses two arts. With wings open, it reveals glossy stripes of black, orange, and blue. While lovely, this does not distinguish it in an order known for iridescence. It is when the butterfly closes those opulent wings that it earns its name. It looks like a dead leaf, brown, of course, but complete with veins, slight nicks on the sides, small pale circles to look like boreholes. A famous lepidopterist once noted that this sort of excessive mimicry was like art, “a form of magic ... a game of intricate enchantment and deception.”

At Virginia Episcopal School, our Fine and Performing Arts department, much like this butterfly, seeks to produce and inspire art that appeals to both experts and novices. We believe art holds a special place in the story of man, for the thing is, once you have learned about the Dead Leaf butterfly, you tend to watch your step. Like art, you are observant for it everywhere.

*Note: Fine Arts elective classes are offered based on student interest and enrollment. Therefore, some courses may not be offered every term.*

INTRODUCTION TO THE ARTS  
CERAMICS I & II  
DIGITAL PHOTOGRAPHY  
STUDIO ART I & II  
PORTFOLIO DEVELOPMENT  
AP STUDIO ART  
AP MUSIC THEORY  
CHAMBER ENSEMBLE  
GLEE CLUB  
JAZZ ENSEMBLE  
VOCAL ENSEMBLE  
FILMMAKING I & II  
ACTING  
TECHNICAL THEATER  
ADVANCED PERFORMANCE  
STAGE COMBAT  
PUBLIC SPEAKING

# THE ARTS

## INTRODUCTION TO THE ARTS

*No prerequisite. 9<sup>th</sup> grade students only.*

Introduction to the Arts is part of our ARC Collaborative curriculum (see p. 5). An interdisciplinary study of music, theater and the visual arts, this course provides students the basic knowledge and applied skills necessary for developing an appreciation for each of the fine arts disciplines. Students will experience the visual and performing arts through live performances, gallery and museum tours, creative projects and classroom demonstrations in each subject area.



## CERAMICS I

*No prerequisite. Open to students in grades 9 through 12.*

Ceramics is a semester-long course that enables students to recognize the properties and possibilities of clay by creating artworks using hand-building techniques. Development of technical skills and artistic vocabulary includes scoring, slipping, hand-building, slab, coil and pinch techniques, bisque firing, painting and glazing. Students learn to approach ceramic artwork as both functional and decorative sculptural objects. Project assignments stress craftsmanship, following the assignment guidelines and creativity. Students participate in critiques in both individual and group settings.

## CERAMICS II

*Prerequisite: Completion of Ceramics I with an 85 average or better, or by teacher assessment. Open to students in grades 9 through 12.*

Ceramics II is an advanced semester-long course in which students become more artistically creative and visually literate. Students will explore throwing on the wheel, layering glazes and working with high fire porcelain. This course contributes to students' development in the four content areas of art production, art history, art criticism and aesthetics. Students familiar with the basics of ceramics have the opportunity to become more confident in their visual literacy and production of functional and sculptural ceramic art.

# THE ARTS

## **ADVANCED CERAMICS**

*Prerequisite: Completion of Ceramics II with an 85 average or better, or by teacher assessment. Open to students in grades 10 through 12.*

Advanced Ceramics is a semester-long course in which students will create a body of work that represents their unique visual voice as a ceramic artist. The class will reinforce fundamental hand-building construction techniques and include wheel-thrown projects, as well. Students will continue to develop their design and glazing applications, logging their progress in their sketchbook. They also will apply their knowledge of moisture content and care to forms for storage and optimal working conditions at clay's various stages of production. Students will identify, examine and understand the aesthetic, stylistic and functional considerations of designing objects and communicating ideas. Project research, studio preparation and maintenance, time management and self-evaluation are essential elements to the individual's success in this course.

## **DIGITAL PHOTOGRAPHY**

*No prerequisite. Open to students in grades 9 through 12. Student must have a basic DSLR camera to use for the course.*

Digital Photography is a semester-long course designed to develop skills in pixel-based photographic design and printing. Students create, edit, post and share their images electronically. This class includes frequent field trips into the Lynchburg community. Digital Photography includes the ability to see, appreciate and create self-expression through the lens and Photoshop. Students synthesize these elements to create a portfolio of work that reflects their newly developed skills. The assignments require students to think creatively and imaginatively, and encourage them to solve problems in an individual manner. Students participate in critiques in both individual and group settings.

VES provides the latest version of Photoshop. Students wishing to edit on their personal computers will want to purchase a one-year subscription to Creative Cloud Photography. Make sure you select the discounted plan for students to take advantage of reduced pricing.

# THE ARTS

## **STUDIO ART I**

*No prerequisite. Open to students in grades 9 through 12.*

Studio Art I is a semester-long course in which students examine art as media and criticism for the first-year art student. Attention is given to creative thinking and problem-solving skills. Beginning art students develop the ability to “read” and utilize the principles of art and elements of design to communicate ideas. A first-year art student will become familiar with the vocabulary, the tools and the media used by artists and designers, as well as develop an understanding and appreciation of art.

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## **STUDIO ART II**

*Prerequisite: Completion of Studio Art I with an 85 average or better, or teacher assessment. Open to students in grades 9 through 12.*

Studio II is an advanced semester-long course in which students become more artistically creative and visually literate. Students who have completed Studio Art I may continue in Studio Art II, where they work in two- and three-dimensional works. This course contributes to students’ development in the four content areas of art production, art history, art criticism and aesthetics. Students familiarized with this basic core of information have the opportunity to become more confident in their visual literacy and production of art.



# THE ARTS

## PORTFOLIO DEVELOPMENT CLASS

*Prerequisites: Completion of Studio Art I & II or Ceramics I & II*

This course is designed for students who plan to pursue AP Studio Art in the following year. In this course students will spend their time working independently on their portfolio preparation. This course requires approval from the studio art teacher and is designed for serious and dedicated art students.



## AP STUDIO ART

*Prerequisites: See pages 6 - 7*

This course is designed to guide students in the creation of a portfolio that addresses three major concerns in the study of art:

1. Quality: A synthesis of form, technique and content in the student's work.
2. Concentration: An in-depth investigation and process of discovery centered on a particular and compelling visual interest or problem.
3. Breadth: A breadth of experience that exhibits serious grounding in visual principles as well as formal, technical and expressive means of the artist.

Students may select drawing and painting, two-dimensional design or three-dimensional design for the portfolio that all students taking this course are required to submit to the College Board for evaluation.

Formal visual concerns, technical skills and conceptual issues are addressed through creative means in both teacher-directed assignments and student-directed projects. The creation of an AP Studio Art portfolio is an involved and personal process of discovery dependent on the student's unique thinking and problem-solving skills. It is hoped that this course will not only help students to produce an excellent body of artwork, but also will introduce them to the richness of the creative process on a personal level, opening the door to personal discovery and allowing them to make meaningful contributions to the greater culture.

# THE ARTS

## **AP MUSIC THEORY**

*Prerequisites: See pages 6 - 7*

AP Music Theory is an intense year-long course that focuses on mastering listening, reading and writing music skills. Students acquire the knowledge and skills needed to complete successfully the Advanced Placement examination. The course of study includes the fundamentals of music theory and the application of those components through composition, ear-training and sight-singing practice. Students learn to understand and respond to the structure of music intellectually, physically and aesthetically.

*All students who take AP Music Theory are required to take the AP exam.*

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## **VOCAL ENSEMBLE**

*Students must have prior vocal music experience and be selected through audition to register for the class. Open to students in grades 9 through 12.*

Vocalists may participate in this class to earn elective credit in the Fine Arts. One credit is earned for a full year's participation. Vocal Ensemble meets two days per week outside the class schedule and may perform on Fall and Spring Family Weekends and in Lessons and Carols services at Christmas. Students are responsible for learning their individual parts outside of class so rehearsal time may be used to perfect the ensemble performance.



# THE ARTS

## **GLEE CLUB \***

*No prerequisite. Open to students in grades 9 through 12.*

Glee Club meets during the academic day and provides students with a comprehensive choral experience. The choir performs at chapel services and special events on and off campus. Repertoire includes sacred and secular choral music ranging from the Renaissance period through 21<sup>st</sup>-century composers.



## **CHAMBER ENSEMBLE \***

*Students must play at an intermediate level to register for the class. Open to students in grades 9 through 12.*

String players and pianists may participate in this class to earn elective credit in the Fine Arts. Students learn a classical repertoire, enhance their musicianship, and practice ensemble skills and performance techniques. Chamber Ensemble meets one evening per week outside the class schedule and may perform on Fall and Spring Family Weekends and in the Lessons and Carols services at Christmas.

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## **JAZZ ENSEMBLE \***

*Students must play at an intermediate level to register for the class. Open to students in grades 9 through 12.*

Musicians in the VES Jazz Ensemble enjoy pushing themselves out of their comfort zone to learn the harmonics, rhythms and melodies of jazz, as well as exploring the art of improvisation. The repertoire ranges from big band jazz to Latin pieces to contemporary works. The Jazz Ensemble invites students with a range of experience and instruments, including beatboxers, classically trained vocalists, pianists and other string instrumentalists interested in applying their talents to jazz stylings. Jazz Ensemble meets two evenings per week outside the class schedule and may perform on Fall and Spring Family Weekends and in the Lessons and Carols services at Christmas.

*\* Each semester's participation in a VES ensemble earns .5 credit. Students are encouraged to engage with the program for the full year.*

# THE ARTS

## **FILMMAKING I**

*No prerequisite. Open to students in grades 9 through 12.*

Filmmaking I is a semester-long online introduction to filmmaking. Students learn how to build a successful video project from the initial stage to the final product, including how to narrow a topic, create a storyboard and shot sheet, write a script, shoot creative video in a timely fashion, edit the video, and publish the finished project. Students also will learn how to use iMovie and Final Cut editing programs.

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## **FILMMAKING II: SPECIAL EFFECTS & ANIMATION**

*Prerequisite: Filmmaking I. Offered Spring 2023.*

Filmmaking II is a semester-long online course with a focus on Special Effects and Animation. Students will use school-owned DSLR cameras, professional camcorders, microphones and lighting equipment to capture their scenes. Students also will use Adobe Premiere Pro, Motion and Final Cut Software to produce animations, school promotional films and student activities videos, such as the End-of-the-Year Video, and will serve as leaders in live streaming events and supporting the Bishop TV channel on YouTube.



# THE ARTS

## **ACTING**

*No prerequisite. Open to students in grades 9 through 12.*

This semester-long course is an introduction to fundamental acting techniques. Students will develop an understanding and appreciation for the art of acting through improvisation, scene work, monologues and script analysis. The class will provide students the opportunity to strengthen those powers of concentration, focus, analysis, imagination, creativity and empathy that are critical to every art form.

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## **TECHNICAL THEATER**

*No prerequisite. Open to students in grades 9 through 12. Offered Spring 2023.*

In this semester-long program, students work in an entirely project-based environment, with activities that include carpentry, sound engineering and design, and lighting. With a small class size, the students benefit from individualized instruction as they learn hands-on both technical knowledge and safe operation of theatre equipment. In addition, students may choose to apply their skills by participating in departmental productions and projects, school events, concerts and guest performances based on the school activities schedule during the semester.

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## **ADVANCED PERFORMANCE**

*Prerequisite: Open to students who show continued interest in their study of Acting and Theater Tech following the completion of intro level courses and/or independent practice.*

## **STAGE COMBAT**

*No prerequisite. Open to students in grades 9 through 12.*

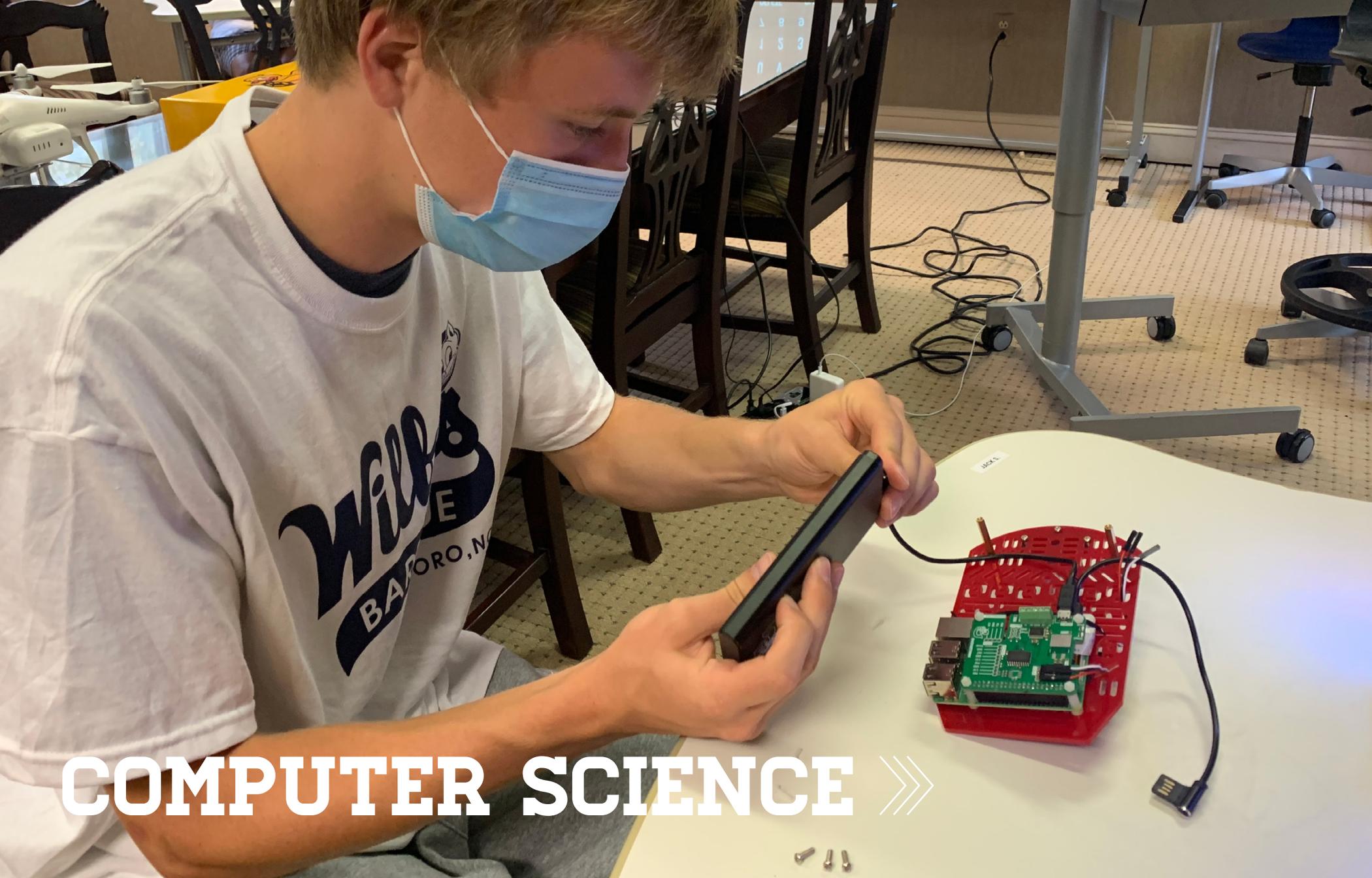
This course is a semester-long examination of stage combat, concentrating on hand-to-hand and rapier. Storytelling is the essential purpose of stage combat, and the balance must be found between realism and narrative. A prime focus will be on safety and the need for move-by-move choreography. Students will examine several films and will be asked to analyze combat sequences for precision, story, clarity, and realism. Students will examine industry-standard practices and policies, and they will learn the basic principles of unarmed combat, focusing on the idea that the “victim” is in control. The class will cover punches, slaps, stomps, hair-pulling, and others.

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## **PUBLIC SPEAKING**

*No prerequisite. Open to students in grades 9 through 12.*

This semester-long course is an introduction to the principles and practices of public speaking. In addition to listening to, reading and analyzing notable historic and modern speeches by individuals from a broad cross-section of society, students will learn how to write, prepare and deliver a variety of speeches. Speeches such as informative, demonstrative, persuasive, humorous and extemporaneous will be investigated.



**COMPUTER SCIENCE** >>>

# COMPUTER SCIENCE

## COURSES

Computers can be manipulated for almost infinite possibilities, yet a computer's greatest service is to help us communicate our ideas with clarity and style. Our students learn that computers are not mere functional items. As such, we embrace the essential skills of creativity, invention, collaboration and communication throughout the Computer Science curriculum. Students also learn practical application skills that can be put to use immediately in the world of technology today.

COMPUTER SCIENCE I:  
COLLABORATION & DESIGN

COMPUTER SCIENCE II:  
WEB DESIGN & PROGRAMMING

COMPUTER SCIENCE III:  
BODY RECOGNITION PROGRAMMING

COMPUTER SCIENCE IV:  
APP DESIGN & NETWORKING

# COMPUTER SCIENCE

## **COMPUTER SCIENCE I: COLLABORATION & DESIGN**

*Required of all 9<sup>th</sup> grade students.*

This project-based course is part of our ARCH Collaborative curriculum (see p. 5). Students will work in collaborative environments such as Google Apps, learn basic coding skills, and design a simple game. Students also will disassemble a computer to learn the function of each piece in the computing process.

## **COMPUTER SCIENCE II: WEB DESIGN & PROGRAMMING**

*Prerequisite: Computer Science I or prior Computer Science course experience. Open to students in all grade levels.*

Computer Science II is a semester-long, project-based, online course that meets once weekly in the evenings. Students will build on the skills learned in Computer Science I, designing web pages using CSS, programming robots and learning game design using Python.

## **COMPUTER SCIENCE III: BODY RECOGNITION PROGRAMMING**

*Prerequisite: Computer Science I and II or previous Computer Science experience*

Computer Science III is a higher-level programming course. It is a one-semester elective course in which students will work on designing Kinect games and learn how to program computers to recognize body movements.

## **COMPUTER SCIENCE IV: APP DESIGN & NETWORKING**

*Prerequisite: Computer Science I, II & III*

Computer Science IV is a full-year course. This course focuses on Java programming language and networking concepts. Students will design their own app in addition to building and maintaining a small network of computers. Students may choose to prepare for the AP Computer Science exam as they work through the projects and concepts in this class.



**RELIGION** >>>

VIRGINIA EPISCOPAL SCHOOL

# RELIGION

## COURSES

The study of religion at VES—along with our tradition of corporate worship and prayer—challenges and empowers students in the search for the ultimate meaning of human existence.

In recognition of our school's connection to the Episcopal Church, the significant role Christianity has played in the development of human culture, and because the Bible serves as a foundational document of the church, the Religion Department will offer a New Testament course each semester. Further recognizing our place in a pluralistic and multi-religious world, the department will offer two World Religions courses (World Religions I and II), asserting that exposure to a variety of religious traditions is essential for meaningful global citizenship. The role of the Religion Department is to deepen student engagement with the broader world manifested in expressions in compassion, service, humility, and universal goodwill.

NEW TESTAMENT  
WORLD RELIGIONS I  
WORLD RELIGIONS II

# RELIGION

## **NEW TESTAMENT**

*No prerequisite. Open to students in grades 9 through 12.*

The semester-long New Testament class surveys the New Testament and the fundamental teachings of Christianity. Old Testament/Hebrew Bible history and themes will be introduced as a foundation for understanding the first-century world and the writings of the New Testament. Particular attention will be paid to the life and teachings of Jesus. Connections will be made to the life of the Early Church, the teachings of the Apostles and traditional Christian beliefs.

Upon completion of the course, students are expected to:

- Understand the basic history and culture of the Old Testament and the first century world as a foundation for interpreting the New Testament.
- Think critically and discuss intelligently topics related to religious beliefs.
- Be able to read, understand and interpret the authorial intent of New Testament texts.

## **WORLD RELIGIONS I**

*No prerequisite. Open to students in grades 9 through 12.*

This semester-long course functions as part of a non-sequential, two-part offering intended to address greater breadth of topics across more varied religious traditions. Students will be presented with a snapshot of the basic tenants, rituals, values and experiences that define a sampling of the major religious traditions of our world.

This class focuses on the earliest religious traditions, followed by the religions that spring from India, followed by an introduction of the major monotheisms (Judaism, Christianity, and Islam) with particular interest in the significance of the rise of Islam the Near East. Students will explore religions from both an external and internal perspective. An “external” perspective reflects those elements of a particular religious tradition that can be interpreted from the outside (historical figures, social changes, and political affinities). An “internal” perspective seeks to explore the ways in which adherents derive meaning from their particular religious tradition, or how their religious tradition answers the big questions of life: Why I am here? What is the good life? What is expected of me? What does the afterlife look like?

# RELIGION

## **WORLD RELIGIONS II**

*No prerequisite. Open to students in grades 9 through 12.*

This semester-long course functions as part of a non-sequential, two-part offering intended address greater breadth of topics across more varied religious traditions. Students will be presented a snapshot of the basic tenants, rituals, values, and experiences which define a sampling of the major religious traditions of our world.

This class begins with an introduction (or re-introduction) to major monotheisms with increased emphasis upon Judaism and Christianity while maintaining at least a sufficient introduction to Islam. Students will then dive into Asian religions (Taoism, Chinese Buddhism, Japanese Buddhism, Confucianism, Folk Religion and Shintoism). The course continues with the study of religious traditions linked with the earth and localized spirits (Shamanism, Animism and indigenous American Religion). As the semester marches on, 19th-century adaptations of major monotheisms (e.g., Christianity and Islam) are explored (i.e., Mormonism, Jehovah's Witnesses, Baha'i Faith), followed by an exploration of 20th-century movements (i.e., Hare Krishna, Unification Church, Scientology). The final unit will explore the misuse of social power and its relation to personality cults (Jonestown, Heaven's Gate, etc.).

