

GARRISON FOREST SCHOOL

300 GARRISON FOREST ROAD • OWINGS MILLS, MARYLAND 21117



UPPER SCHOOL CURRICULUM GUIDE 2023-2024

CORE VALUES

Esse Quam Videri, “To Be Rather Than To Seem,” has inspired our community since Garrison Forest School’s founding in 1910. Today, it inspires our Core Values:

- Be Authentic.
- Be Brave.
- Be Compassionate.
- Be Curious.
- Be Spirited.

These five Core Values, created by the GFS community in 2015, guide how we teach and learn, connect and collaborate, serve and succeed. Underscoring our Mission and Statement of Respect, these five values are a road map for every member of our community, adult and child, to be our best selves.

MISSION AND PHILOSOPHY

At Garrison Forest School, we prepare our students in and out of the classroom to thrive in a complex, changing world by

- Challenging them to strive for academic excellence and to grow into informed, independent and creative thinkers;
- Cultivating an authentic and resilient sense of self, grounded in respect and integrity;
- Creating a diverse and inclusive community built on a spirit of caring;
- Inspiring young women to lead and to serve with passion, purpose and joy.

Our motto informs our mission: *Esse Quam Videri*—“To Be Rather Than To Seem.”

STATEMENT OF RESPECT

The Garrison Forest School community is deeply committed to equity, honesty, kindness and respect as part of the educational experience. To this end, we

- Celebrate diversity both within our community and our curriculum;
- Support the well-being of all people;
- Build the self-esteem of all people;
- Promote understanding among all people.

We recognize the dignity and worth of all individuals. To protect their rights, we confront bias, prejudice and discrimination. Garrison Forest does not condone any behavior which is inconsistent with these tenets. We believe that it is unacceptable for our spoken and written language and behavior to demean anyone's physical characteristics, as well as anyone's ethnic, gender, personal, racial, religious or sexual identities. We, as individuals, must take responsibility for our words and deeds and respect all people.

Garrison Forest School

US Curriculum Guide

2023-2024

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ACADEMIC PROGRAM

Graduation Requirements

Garrison Forest Upper School operates on a semester system. One credit is given for a full-year course; semester courses earn one-half (0.5) credit. A minimum of 22 credits is required for graduation.

Distribution Requirements

Arts (2 credits) including both Visual and Performing Arts credits

English (4 credits) completion of sequence through English IV

History & Social Sciences (3 credits): including World History II and United States History

Mathematics (3 credits): coursework through Algebra II or beyond Algebra II; enrollment in a math class all four years

Physical Education (6 points/seasons): to be completed before the conclusion of junior year, equivalent to 2 credits

Science (3 credits): including one of each of the following lab sciences: biological, chemical and physical

World Language (3 credits): complete one language through Level III.

Non-credit requirements:

Digital Thinking (Grade 9, semester course)

Dialogue & Debate (Grade 9, semester course)

Decision Making (Grades 9 and 11, full year course)

SAT Prep/Career Explorations (Grade 10, semester course)

Transitions (Grade 11, full year course)

Recommended Course Load

- Students generally take at least 5 academic courses each semester.
 - In grade 9, students generally carry 6 academic credits.
 - In grade 10, students generally carry 5 ½ to 6 academic credits.
 - In grades 11 and 12, students carry 5 to 6 academic credits.
- Students seeking to carry more than 6 academic credits must submit a formal written request for permission to the Dean of Academic Development. Written requests for more than 6 academic credits should include:
 - rationale for how the courses fit into the student's long-range interests and goals;
 - evidence that the student has been consistently demonstrating the need for academic challenge beyond the normal course load;
- Written requests for a reduction to the general course load should be directed to the advisor and the Dean of Academic Development. Documentation is required for all rationales; students must still meet the minimum credits for graduation and complete required coursework, and a 4-Year Plan must be developed and submitted, outlining the proposed trajectory. Possible rationales for reduced course load are:
 - Language-Based Learning Disability qualifying for a foreign language waiver
 - Medical limitations

Academic Credit for Courses/Special Programs Outside of GFS

In general, GFS does not confer credit for courses taken elsewhere while enrolled at Garrison Forest but may take into account that work for purposes of placement and attach the transcript from the sponsoring institution. The Head of Upper School, in collaboration with the College Counselor, relevant Department Chair, and Dean of Academic Development, will determine whether such a course can be used to fulfill departmental requirements for graduation or whether it can be used to fulfill overall course load requirements.

Permission from the Head of Upper School and the relevant Department Chair is needed in order for a student to receive credit for a course or program other than those offered during the regular school day and year (such as for an approved semester away program). Credit is granted on an individual basis, and requests for such credit must be made in advance of enrollment in such a course.

Four Year Course Selections Sample

SUBJECT	9th grade (6 courses)	10th grade (5.5 - 6 courses)	11th grade (5.5 - 6 courses)	12th grade (5.5 - 6 courses)
English	English I*	English II* or English II Honors	English III or English III Honors	English IV or AP English Literature
Math	Level as determined: (Alg I, Geometry, Geom & Trig Honors, Algebra II, Algebra II & Trig Honors)	Level as determined: (Geometry, Alg. II, Alg II Trig Honors, Precalculus, Precalculus Honors)	Level as determined: (Algebra II up through AP Calculus BC)	Level as determined (up through Multivariable Calculus or AP Statistics)
Science	Biology	Chemistry or Chemistry Honors	Physics or Physics Honors or Honors Physics w/ Calculus	Recommended: Full-year elective courses (AP, Honors, or standard)
History / Social Sciences	World History I (or additional world language)	World History II or World History II Honors	US History or AP US History	Recommended: Full-year or Semester elective courses (3 years total required)
World Language (French, Latin, Spanish)	Required through Level III and 10th grade	Required through Level III and 10th grade	Recommended: through highest level	Recommended: through highest level
Arts (Visual and Performing)	One semester 2D or 3D Design, One semester Theater or Music course	Arts Electives (4 semesters minimum required)	Arts Electives (including Portfolio, with pre-reqs and by permission)	Arts Electives (including Portfolio, with pre-reqs and by permission)
Electives	N/A	Electives in Computer Science, Engineering, History	Electives in Computer Science, Engineering, History, Science, Math	Electives in Computer Science, Engineering History, Science, Math
Physical education / Athletics (afterschool)	2-3 seasons	2-3 seasons	1-3 seasons (6 seasons total required by 11th grade)	

* Or English Literature & Composition (for non-native speakers of English new to the Upper School)

COURSE OFFERINGS

Arts: Visual and Performing

Requirements:

- 2 credits
- Visual and Performing Arts must be represented in the Arts credits
- Students in Grade 9 complete two introductory-level semester courses in Visual and / or Performing Arts

Visual Arts

The Visual Arts faculty is committed to promoting literacy, communication, and imagination in all students, based on their belief that the arts are fundamental to the human experience and to the contemporary world. Our comprehensive art program provides opportunities to foster creative problem-solving, to develop aesthetic judgments, comprehend historical perspectives, explore personal identities, express innovative ideas, and facilitate cognitive, perceptual, and manipulative skills according to individuals' interests and abilities. Not all courses will be offered every year; courses with the largest pre-registration enrollments will be given preference.

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
9-12	2D Design	Both	0.5	STEM VA&D	
9-12	3D Design	Both	0.5	STEM VA&D	
10-12	Color Theory	Both	0.5	STEM VA&D	2D Design or 3D Design
10-12	Darkroom Photography	Both	0.5	STEM VA&D	2D Design or 3D Design
10-12	Digital Photography	Both	0.5	STEM VA&D	2D Design or 3D Design
10-12	Drawing	Both	0.5	VA&D	2D Design or 3D Design
10-12	Metalworking	Spring	0.5	STEM VA&D	3D Design
10-12	Painting	Both	0.5	VA&D	Drawing or Color Theory
10-12	Woodworking	Fall	0.5	STEM VA&D	3D Design
11-12	Art History	Year	1.0	GC VA&D	Grade 11 with Dept. permission
11-12	Honors Art Portfolio	Both	0.5	VA&D	2D or 3D Design, a minimum of two other arts courses, and approval via application

2D Design Grades 9-12

½ credit; semester course

This course will offer you an understanding of visual communication tools that will guide the way you experience the world around you. Through experimentation, problem-solving and sequential approaches, students will be assigned projects that balance the learning of conceptual development, technique, and design tools. Applying principles of design, the creative projects aim to heighten visual literacy, enhance spatial reasoning, stimulate endless creative possibilities, and generate relevancy to everyday life. **STEM, VA&D**

3D Design Grades 9, 10, 11, 12

½ credit; semester course

Create beyond the confines of the two dimensional world and allow your art to function in 3 dimensions. Design, experiment, and craft three-dimensional objects with a range of materials such as clay, metal, wood, and fibers. This introductory course supports STEM objectives, enhances students' understanding and manipulation of space, emphasizes problem-solving, structural and spatial reasoning, and provides training in the fundamental processes and conceptual development of sculpture. **STEM, VA&D**

Color Theory Grades 10, 11, 12

½ credit; semester course

(Prerequisite: 2D Design or 3D Design)

Where do colors come from? What effects do colors have in the world? This course supports STEM objectives and is for students who are interested in the integration of science and art. Color Theory projects include a variety of media such as painting, drawing, screen printing, and digital imaging. Through research, experimentation, and reflection, students will learn the science of color integration and the art of color pairing. **STEM, VA&D**

Darkroom Photography Grades 10, 11, 12

½ credit; semester course

(Prerequisite: 2D Design or 3D Design)

Discover the magic of traditional, photographic image magicing! In this course, students will learn traditional black and white darkroom photography and film and print processing in addition to learning how to fully function a 35mm analogue camera. Students will be empowered and encouraged to be curious in discovering for themselves the possibilities that can occur in the Darkroom. Our work will include: camera obscuras, pinhole cameras, cyanotypes, DIY cameras, double exposures, studio lighting, portrait photography and more! The class will conclude with a hand bound photo book displaying the work created throughout the semester. **STEM, VA&D**

Digital Photography Grades 10, 11, 12

½ credit; semester course

(Prerequisite: 2D Design or 3D Design)

From cell phone cameras to DSLR cameras, digital photography has never been more accessible as it is now! Is it easy to take a photo, but how do we take a GOOD photo?! This course will serve as a general introduction to digital photography, its history and genres, how to edit and manipulate images using the professional software Adobe Lightroom and Photoshop, how to function a DSLR camera, and basic compositional theory. All things in which will help students gain the skills and insight into their personal style and taste in order to create compelling images. Students will cover the "What", "Why, and "How" of photography as they explore the "Who" as themselves as the photographer. The course will end with a digitally created photo book showcasing the work created throughout the semester. **STEM, VA&D**

Drawing Grades 10, 11, 12

½ credit; semester course

(Prerequisite: 2D Design or 3D Design)

"Everyone learns to write. We are taught to write by copying marks, and even when we copy marks, we all make them individually, we all have different kinds of handwriting. Within a year or two of being taught to write, things happen to our handwriting and personal ways of making marks develop very quickly. That's the way, really, you learn to draw. And in learning to draw (unlike learning to write) you learn to LOOK. It's not the beauty of the marks we like in writing, it's the beauty of the ideas. But in drawing, it's a bit of both."- David Hockney. Drawing is fundamental to other art studies. This course grows the student's understanding of the technical and conceptual components to drawing. With a focus on observational drawing, students will investigate still life, portraiture, human figures, and architecture

subjects. **VA&D**

Metalworking Grades 10, 11, 12

½ credit; semester course

(Prerequisite: 3D Design)

Develop an extensive range of metalworking skills including sawing, piercing, riveting, forging, soldering, and more. We will learn how to work with copper, brass, nickel silver, and we will experiment with patinas, powder coating, and stone-setting. Students will be encouraged to expand upon design fundamentals and explore metalworking as an expressive, inventive art form. We will strive to use all materials creatively, explore historical and cultural influences, investigate techniques, processes and themes, and the ability to encapsulate, through interpretation, a strong sense of design and innovation. **STEM, VA&D**

Painting Grades 10, 11, 12

½ credit; semester course

(Prerequisite: Drawing or Color Theory)

Investigate light, form, and color through the medium of paint. Using both traditional and innovative techniques, students will interpret still life arrangements, human figures, structures, and abstraction. In addition to painting in the studio, students will keep a visual journal, participate in critiques, and view paintings in a local museum. Students will gain a working understanding of color theory as is necessary in painting, and would benefit from taking the Color Theory course as well for increased depth of knowledge. **VA&D**

Woodworking Grades 10, 11, 12

½ credit; semester course

(Prerequisite: 3D Design)

This course provides an in-depth introduction to the tools and processes in the woodshop. From designing and selection of materials to construction and finishing, emphasis will be placed on craftsmanship, safe use of materials and tools, and group work. Woodworking projects enhance students' spatial reasoning skills, teach complex problem solving, and help put their academic subjects, such as geometry and physics, into real life context. Hands-on design classes help students gain confidence as real world problem solvers, teach perseverance, patience, and attention building skills, and instill pride of accomplishment and self-esteem through the processes of designing and making. **STEM, VA&D**

Art History* Grade 12

1 credit; year course

(Grade 11 with Departmental permission)

From ancient civilizations through the twenty-first century, this course surveys exemplary works of art from Africa, Europe, the Americas, and Asia by investigating processes, aesthetics, and prevalent themes in relation to political, social, economic, religious, and educational contexts. The global perspective is presented with slides, videos, primary sources, text, and field trips to see works of art and architecture in the Baltimore-Washington region. Although not an AP-designated course, students may elect to prepare for and take the AP Art History exam in May and the teacher will provide support and guidance toward that goal for qualified, interested students. **GC, VA&D**

**Cross-listed in History*

Honors Art Portfolio Grades 11, 12

½ credit; semester course

(Prerequisite: 2D or 3D Design, at least two other arts courses, and approval via [application](#))

Serving as the capstone to our visual arts program, Honors Art Portfolio invites students to investigate themes and expand their techniques, resulting in a cohesive body of work. Students will hone their

artistic voice and explore new possibilities and mediums. This course allows students the freedom to create in an independent, interdisciplinary manner, with the opportunity to work in any of our art studios. Students will participate in class critiques, artist talks, field trips, and a summative presentation of their work in the Spring Art Walk. **VA&D**

Performing Arts

The Performing Arts faculty prepares students to thrive in a complex and changing world. At the core of our courses and co-curricular opportunities, we support each student's authentic self-awareness and expression by fostering a "creative self" within each discipline: music, theater and dance. Through a comprehensive curriculum organized around creating, performing, responding and connecting, students gain an understanding of performance skills, artistic process, historical relevance and how the performing arts are infused into their own cultures and communities. The cultivation of a safe, nurturing environment encourages students to take risks, make connections across art forms, develop their own artistic visions and discover confidence in their unique abilities and contributions.

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
MUSIC					
9-12	Modern Band I, II, III	Both	0.5		Instrumental and vocal experience preferred
9-12	Chamber Choir	Both	0.5		
10-12	AP Music Theory <i>*online course</i>	Year	1.0		Prior study of music theory and Dept. approval
THEATER					
9-12	Acting & Directing I	Both	0.5		
10-12	Acting & Directing II & III	Both	0.5		Acting & Directing I or II
10-12	Playwriting	Fall	0.5		
10-12	Technical Theater & Production	Spring	0.5	STEM	

Music

The Upper School Music program gives students the knowledge and skills necessary to express themselves musically in meaningful ways and to formulate valid aesthetic opinions about music. These courses develop music literacy and cultivate an understanding of music as an art form, which is an integral and valuable component of life in all cultures.

Co-curricular opportunities within the Upper School Music program include the Ragged Robins, an a cappella singing group open to 10th and 12th graders by audition only, and the annual Musical. Garrison Forest School also offers a co-curricular Applied Music Program, through which students can receive private lessons in voice, piano, violin, flute, cello, guitar, percussion and brass/woodwinds.

Modern Band I, II, III Grades 9, 10, 11, 12

½ credit; semester course

(No Prerequisite – instrumental and vocal experience preferred)

Modern Band teaches students to perform, improvise and compose using popular music styles that they know and love. These include Rock, Pop, Reggae, Hip Hop, R & B, Jazz, Blues, Gospel, Rap and other modern styles. The Modern Band class features guitar, bass, keyboard, drums and vocals. Students will learn to work with technology for performance and computers to create lead sheets and compose songs.

Students are required to perform in at least one school event during the course. Students in this course may also perform with a choral ensemble as the musical accompanist for performances both on and off campus. Attending all Modern Band dress rehearsals and performances is a course requirement.

Chamber Choir Grades 9, 10, 11, 12

½ credit; semester course

The Chamber Choir is a vocal ensemble which performs throughout the year both on and off campus. All members of the ensemble are expected to have basic facility with matching pitch and blending in an ensemble. Members will also develop a facility with sight-singing. Chamber Choir studies a varied repertoire which includes diverse classical, pop, folk and jazz selections. Students form a unified ensemble, advance in their vocal technique, and expand their musicianship and sight singing skills. Interested students also have opportunities to perform as soloists and in small ensembles. Attending all rehearsals and performances is a requirement for this course.

AP Music Theory*

1 credit; year-long (online)

*Offered through One Schoolhouse/Online School for Girls 2023-2024

(Prerequisite: prior study of music theory and Departmental approval)

See p. 58 for full course description

Theater

The Upper School Theater program offers skills-based training in the theater arts. From an introduction to theater history, to acting and directing, to script work and playwriting, these courses promote active learning environments, giving students a kinesthetic and empathetic understanding, as well as an intellectual understanding, of the topics covered. Students will have opportunities to perform their work for an audience, allowing them to showcase their skills. Emphasis is on developing self-awareness of the body and voice, developing one's own aesthetic by studying various genres and styles of theater, working with others as an ensemble, and building a strong sense of self-confidence. The skills of collaboration, creativity, self-directed learning, curiosity, and critical thinking are highlighted within each theater course. Whenever possible, theater courses are reflective of and offer connections to the academic curriculum and today's world.

Co-curricular opportunities within the Upper School Theater program include two full productions per year: a Play and a Musical. Upper School students can also be involved in the technical theater process for these productions as assistant directors, stage managers, design team members or tech crew.

Acting & Directing (I) Grades 9, 10, 11, 12

½ credit; semester course

This course is an introductory exploration of the role of the actor and the director. Students will be introduced to the basics of acting, which include but are not limited to: script analysis, making clear choices, identifying objectives and tactics, stage presence, vocal projection and learning how to work successfully as an ensemble. Students will also be introduced to the role of the director, using William Ball's *A Sense of Direction* as a guide for the class. For the final project of the course, students will elect to either direct or act in a one-act play, to be presented to the Garrison Forest community.

Acting & Directing (II & III) Grades 9, 10, 11, 12

½ credit; semester course

(Prerequisite: Acting & Directing I or II)

Students who aspire to further explore and improve their acting or directing skills may elect to continue with this course. A wide variety of diverse acting and/or directing styles will be studied. As opportunities arise, students may have the experience of working with professional guest artists during this course. For the final project, students will direct or act in a one-act play, to be presented to the Garrison Forest community, and create an Actor's Notebook or a Director's Notebook tracking the development of their character(s) and/or concept(s).

Playwriting Grades 10, 11, 12

½ credit; semester course

In this class, students will read and study several plays, and begin writing (and possibly staging) scenes and monologues of their own creation. They will learn to analyze what is essential to a powerful monologue and how writing for two characters presents very different challenges. Students will study and compare the writing styles of various playwrights as they are discovering their own writer's voice. Students will be strongly encouraged to submit a final piece of their writing for publication. As opportunities arise, students may also learn from guest speakers/artists during this course.

Technical Theater & Production Grades 10, 11, 12

½ credit; semester course

This semester course provides students with an in-depth exploration of the theater production process. From initial readings and play analysis through design and production, all elements of production are explored. Class discussions, selected readings, videos and visual presentations will help students develop and demonstrate theories and concepts through practical applications. Students will take on roles as actors, directors, dramaturges, designers and stage managers as they work on two major GFS productions during the course. This course is ideal for the student who is interested in the backstage process of theater.

STEM

Dance

Garrison Forest School also provides rich opportunities to develop in the performing arts through participation in Beginning, Intermediate, and Advanced Dance Classes. The Upper School Dance program is a technique-based, challenging after-school program in which students focus on the development of strong dance skills, build self-confidence, and explore artistic self-expression. Dance classes are offered as part of our Physical Education program and students who take dance will earn PE credit. See [*Physical Education*](#).

Computer Science & Technology

It is the goal of Garrison Forest School that each graduate leave the school confident and ready to use her technology skills. Students will have opportunities to use technology in a way that combines creativity and advanced applications.

Requirements:

- All 9th grade students must take Digital Thinking: Apps to Ethics

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
9	Digital Thinking: Apps to Ethics	Both	n/a	STEM	Required for all 9th grade
10-12	Engineering Design	Year	1	GC STEM VA&D	
10-12	Introduction to Computer Programming: Game Design	Both	0.5	STEM VA&D	
10-12	Introduction to Computer Programming II: Technological Applications	Both	0.5	STEM	Introduction to Computer Programming or permission of instructor
10-12	Intermediate Programming: Python	Both	.5	STEM	AP Computer Science Principles or Introduction to Computer Programming or permission of instructor
10-12	Advanced Computer Science: Coding with Python *online course	Fall	.5	STEM	AP Computer Science Principles Algebra II
10-12	AP Computer Science Principles	Year	1	STEM	Geometry
10-12	AP Computer Science A *online course	Year	1	STEM	
10-12	Yearbook I	Fall	0.5	VA&D	

Digital Thinking: Apps to Ethics Grade 9 (Required of all 9th graders)

non-credit; semester course

This required 9th grade course is designed to introduce and reinforce GFS technology expectations, policies and procedures and solidify students' understanding of computer science principles and practices so that they can make informed choices and use appropriate digital tools and techniques. In this course, students will explore the breadth of computing and its influence in almost every aspect of modern life as well as the social and ethical implications of using computing technology both personally and professionally. **STEM**

Engineering Design* Grades 10, 11, 12

1 credit; year course

This course uses the E4USA Engineering For Us All curriculum developed in partnership with a host of major US university engineering departments. The curriculum itself has four primary focuses: discovering engineering, engineering in society, engineering professional skills and engineering design. The backbone of this course is active, hands-on learning of problem-solving, collaboration, and

communication skills that can be applied and adapted to different environments; it emphasizes developing as an empathetic engineer. As part of this course, students will be able to elect whether to work on traditional engineering projects or to a project focused on robotics. **GC, STEM VA&D**
*Cross-listed in Science

Introduction to Computer Programming:

Game Design Grades 10, 11, 12

½ credit; semester course

This course allows students to create their own digital games without needing any previous programming experience. Students will learn about game design and development, reimagine well known games, and bring their own ideas to the digital screen. Alongside exploring gameplay, students will be engaged in interactive design, problem-solving, and learning the principles of computer science, while using a friendly, graphical-based language. This is a class for anyone who has ever been curious about digital games, computer science, or using design and creativity in new ways. This course can be taken first or second semester. **STEM, VA&D**

Introduction to Computer Programming II:

Technological Applications Grades 10, 11, 12

½ credit; semester course

(Prerequisite: Introduction to Computer Programming or permission of instructor)

This course builds upon the computer science principles taught in Introduction to Computer Programming I. Students will continue to enhance their computational thinking through designing interactive experiences, particularly in the augmented and virtual realities (AR and VR). Procedural and logical demonstrations through coding and programming with the purpose of storytelling, digital entertainment, and core class enrichment will be major components utilizing these realities. Delving into Swift Playgrounds and Python will also be explored in the efforts to prepare our students for the Digital Age. This course will be offered second semester only. **STEM**

Intermediate Programming: Python Grades 10, 11, 12

½ credit; semester course

(Prerequisite: Successful completion of AP Computer Science Principles or Introduction to Computer Programming or permission from the instructor.)

Python is one of the most used and versatile programming languages available, becoming increasingly popular by companies looking to create their own websites, apps and data analysis tools. It is a “back-end”, object-oriented language which aims to be easily readable, adaptable and can be used for a variety of purposes. Whether you have taken Intro to Computer Programming I, Computer Programming II, or even AP Computer Science Principles, you will revisit the concepts of data structures, conditionals, loops, variables, and functions in a strictly textual format. By the time you have completed this course, you will be able to design, code, test, and debug within the Python language structure. **STEM**

Advanced Computer Science: Coding with Python* Grades 11, 12

½ credit; semester course

*Offered through One Schoolhouse 2023-2024

(Prerequisite: Successful completion of Algebra II and AP Computer Science Principles or permission from the administration; experience with Python or non-block based coding program required.) **STEM**
See p. 57 for full course description

AP Computer Science Principles Grades 10, 11, 12

1 credit, year course

(Prerequisite: Geometry)

This course will develop computational thinking vital for success across all disciplines, such as using

computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world. The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course which will prepare students for the AP exam and for further study in computer science. **STEM**

AP Computer Science A Grades 10, 11, 12*

1 credit; year course (online)

*Offered through One Schoolhouse 2023-2024

(Prerequisite: Prior coursework in computer programming and permission of instructor) **STEM**

See p. 58 for full course description

Yearbook I Grades 10, 11, 12

½ credit; fall semester course

This course will focus on the fundamental concepts of yearbook layout, design, and production, and introduce the basics of photography. Students will have an opportunity to dive into the digital design process, create feature spreads for the yearbook, and contribute to the creative development of the content. This class leads with four topics of theme, design, photography, and journalism, and helps students develop their ability to communicate, collaborate, problem-solve, and effectively manage their time. **VA&D**

English

The English program is designed to foster appreciation for literature as a reflection of human experience and to encourage students to become insightful readers and expressive writers. Over four years, students develop their critical thinking, editing, and close reading skills; read deeply in a variety of genres; and find their own voices by writing, revising, and presenting essays and creative writing.

Requirements:

- 4 credits
- Completion of the sequence through English IV.

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
9	English I: Reading to Write	Year	1.0		
9-12	Literature and Composition	Year	1.0		Required English course for international students new to the Upper School
10	English II: A Study of Genre	Year	1.0		
10	English II Honors: A Study of Genre	Year	1.0		Dept. permission
11	English III: The Literature of American Identity	Year	1.0		
11	English III Honors: The Literature of American Identity	Year	1.0		Dept. permission
12	English IV: The World as Text	Year	1.0		
12	AP English Literature and Composition	Year	1.0		Dept. permission

English I: Reading to Write Grade 9

1 credit; year course

This course includes an intensive introduction to both analytical and creative writing skills, with an emphasis on academic writing, grammar, and vocabulary development. Students will read in a variety of genres including stories, personal essays, nonfiction, novels, poetry, and drama. These works will be read and studied both together as a class and through independent enrichment reading assignments. Students will generate thematic connections across genres, cultures, and contexts, and through close reading, class discussions, and extensive writing, students will develop their ability to appreciate and analyze literature.

Literature and Composition Grades 9, 10, 11, 12

1 credit; year course

(Required English course for international students new to the Upper School)

This World Literature course emphasizes analytical skills, writing skills, speaking skills, listening skills, grammar, and vocabulary development through the study of a variety of genres, including short stories, personal essays, nonfiction, novels, poetry, and drama. This course develops a foundational knowledge of literary terms and concepts. Through close reading, class discussions, class debates, and extensive writing, students will improve their ability to appreciate and analyze texts. Students will practice choosing meaningful writing topics, collecting relevant information from the texts, formulating thesis statements, and developing their ideas in writing. Students will complete many written and oral presentations, journal entries, short written responses and longer expository essays

English II: A Study of Genre Grade 10

1 credit; year course

English II is designed to continue the survey of genres which students began in English I by reading drama, short stories, novels, personal essays and poetry by a wide range of authors from around the world. By studying texts from different cultures, students become more globally aware, and thematic highlights may include identity and belonging, the notion of home, and desire for power. In this course, students become more proficient in close reading, language analysis, and vocabulary development and usage. English II emphasizes analytical writing; students will develop their skills in selecting and discussing evidence to support a thesis statement. The wide range of writing assignments encourages students to continue to develop their own voice in their writing style.

English II Honors: A Study of Genre Grade 10

1 credit; year course

(Prerequisite: Departmental permission)

Students in this accelerated course will read many of the same core texts as English II but proceed at a faster pace and have more readings in poetry, especially metaphysical poetry, with an emphasis on figurative language, abstract concepts and historical context.

English III: The Literature of American Identity Grade 11

1 credit; year course

English III is an American literature course, with overarching themes of identity and experience, the American Dream, race in America, gender, and class. Students read short stories, novels, plays and poetry by a wide range of American writers and will analyze rhetoric in essays, speeches, letters, and other nonfiction texts. Students in English III will also continue to develop their writing skills and will have opportunities to write personal responses and narratives, to work creatively and collaboratively, and to practice their presentation and public speaking skills. Culminating projects in English III include the Passion Project, where students can delve into a topic of their choosing, and the college essay unit, where students apply the entire writing process -- drafting, revising, editing, reviewing -- to their college application essay. Although English III at Garrison Forest does not carry the AP designation, students will be prepared for and may opt to take the AP English Language exam.

English III Honors: The Literature of American Identity Grade 11

1 credit; year course

(Prerequisite: Departmental permission)

Students in English III Honors will read many of the same core texts as English III but have additional readings in nonfiction and poetry within each unit. The class will proceed at a faster pace and have more emphasis on elements of figurative language and authorial style. Although English III Honors at Garrison Forest does not carry the AP designation, there will be explicit instruction and practice to prepare students for taking the AP Language and Composition exam.

English IV: The World as Text Grade 12

1 credit; year course

Senior English encourages students to apply and synthesize all of the critical reading and writing skills taught in the Upper School. Students read canonical and contemporary works from classical Greek tragedy and contemporary American drama to novels and memoirs of personal discovery and transformation. A selection of thematically relevant poems, short stories and nonfiction accompanies each longer work. The final quarter of the course is dedicated to nonfiction texts and journalism. Students choose a nonfiction book to read independently and a subject to interview and profile, which allows them to explore non-academic writing and real-world experiences.

AP English Literature and Composition Grade 12

1 credit; year course

(Prerequisite: Departmental permission)

The focus of Advanced Placement English is World Literature, Drama, and Poetry with an emphasis on 19th and 20th century Western European fiction and critical theory. This college-level course demands extensive reading and writing as well as significant participation from students during seminar-style class discussions. The class requires active engagement, collaboration, and a genuine desire to broaden one's worldview. In preparation for the AP Literature exam in May, students will learn how to analyze a text at the sentence-level and discuss the ways in which an author's use of language generates and intersects with theme. Students will seek to discover *why* a writer makes his/her choices. Course texts include novels, plays, and poetry, as well as works of critical nonfiction. Analytical writing is a significant element of the course, and students will complete at least one essay or major project for each work of literature. Many essays will be written in class as a way of preparing for the format of the AP English exam.

Support for English for Speakers of Other Languages (ESOL)

ESOL support is provided to all for whom English is a non-native language, but Garrison Forest Upper School does not offer an ESL course or track. All students for whom English is a second language and who are new to the Upper School (including students who were in Garrison Forest Middle School) will be scheduled for the Literature and Composition course.

History & Social Sciences

The primary goals of the History & Social Sciences Department are to help students develop the abilities to think critically, independently, ethically, and philosophically. Students should recognize that they inherit the past and that they are global citizens who share a responsibility for the present and the future.

Through a solid core of interdisciplinary and multicultural courses offered in history, students acquire the global perspective they need to appreciate diversity and to accept that there are multiple potential answers to world questions and problems. The History & Social Sciences faculty strives to challenge students through a variety of learning techniques to: analyze controversial issues and evaluate alternative solutions; practice and strengthen the skills which will help them acquire and use knowledge; articulate an understanding of historical developments; and appreciate the dignity of individuals, cultures, and nations.

Course offerings vary from year to year according to student interest; not all courses may run every year.

Requirements:

- 3 credits
- Students are required to complete World History II and United States History.
- Students are encouraged to take one or more history courses beyond the 3 core history courses.
- Latin Literature semester courses are cross-listed and may satisfy either a World Language or History credit (but not both).

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
9	World History I	Year	1.0		
10	World History II	Year	1.0		
10	World History II Honors	Year	1.0		Dept. permission
10-12	Contemporary World Issues	Fall	0.5	GC	
10-12	Economics: Making cents of personal and global financial literacy	Fall	0.5	GC STEM	
11	U.S. History	Year	1.0		
11	AP United States History	Year	1.0		Dept. permission
12	Recent American History: From JFK to Today	Spring	0.5		U.S. History or AP U.S. History
10-12	Honors Seminar: Genocide: Confronting Evil and Stopping It	Spring	0.5	GC	
10-12	Honors Seminar: African American Studies	Spring	0.5	GC	
10-12	Honors Seminar: Philosophy and Practice in World Religions	Spring	0.5	GC	
10-12	Honors Seminar: Sustainable Development Studies	Semester or year	0.5	GC STEM	
11-12	Developmental Psychology	Spring	0.5	STEM	
11-12	Psychological Treatments and Disorders	Fall	0.5	STEM	

12	AP Psychology	Year	1.0	STEM	Dept. permission
11-12	Art History	Year	1.0	GC VA&D	Grade 11 with Dept permission
9-12	Latin Literature: Tales of Love on the Rocks	Fall	0.5	GC	Latin III or III-Honors; this course is offered as a pre- or post-AP option
9-12	Latin Literature: Enemies of Rome	Spring	0.5	GC	Latin III or III-Honors; this course is offered as a pre- or post-AP option
11-12	AP Macroeconomics *online course	Year	1.0		Algebra II / Trig or higher math
11-12	AP Microeconomics *online course	Year	1.0		Algebra II / Trig or higher math
10-12	<i>Honors Seminar: Ethics</i>	<i>Spring</i>	<i>0.5</i>	GC	<i>Not offered in 2023-2024</i>
10-12	<i>International Perspectives on Women, Gender, and Health</i>	<i>Semester</i>	<i>0.5</i>	GC	<i>Not offered in 2023-2024</i>
10-12	<i>Modern Latin America</i>	<i>Semester</i>	<i>0.5</i>	GC	<i>Not offered in 2023-2024</i>
9-12	<i>Latin Literature: Death of the Roman Republic: Power, Politics, and Public Disorder</i>	<i>Semester</i>	<i>0.5</i>	GC	<i>Not offered in 2023-2024</i>
9-12	<i>Latin Literature: Laugh Like a Roman: Comedy, Satire, and Personal Insults*</i>	<i>Semester</i>	<i>0.5</i>	GC	<i>Not offered in 2023-2024</i>

World History I Grade 9

1 credit, year course

World History I explores the histories and cultures of major societies around the world from early civilizations – 1500 CE. Through the exploration of facets of human civilization—cultural values and traditions, political and economic structures, ideologies and religious beliefs, scientific and artistic developments—students foster their own sense of historical imagination and empathy. Students cultivate global citizenship skills and historical habits of mind by developing their ability to assess evidence, interpret multiple perspectives, and analyze change and continuity over time. Significant emphasis is placed on the development of organizational, note-taking, critical reading, writing, and research skills.

World History II Grade 10

1 credit, year course

World History II is a continuing exploration of the issues and events which have created world history from 1500 CE to our contemporary age. With particular attention to the theme of "revolution," students analyze the causes and effects of ongoing social, economic, political, religious, intellectual, and technological changes. They examine multiple perspectives, endeavoring to understand the interrelationships and diversity of our world. The course reinforces historical thinking skills, work habits, and analytical reading and writing, including the techniques of independent research.

World History II Honors Grade 10

1 credit, year course

(Prerequisite: Departmental permission)

The class will proceed at a faster pace than World History II. The course will use a greater span of supplemental primary sources and provide students with additional oral and written opportunities to demonstrate deep analysis and synthesis. This course expects independent understanding of textbook

reading and is recommended for students who are highly motivated and meet the criteria for recommendation.

Contemporary World Issues Grades 10, 11, 12

½ credit; semester course

What are the main issues facing the world today? What are the main issues facing the United States today? What are some of the successful strategies that have helped with these issues? How does our personal bias influence the way we look at the world? Why is it important to detect media bias, and how do we detect it? These are among the many questions that we will explore in this class. The world is increasingly interconnected and students will draw from planned content as well as from daily national and international headlines. A special focus will be placed on independent research. Students will apply critical thinking and research skills to examine current events and contemporary issues. Topics such as climate change, migration, immigration, water scarcity, ocean conservation, poverty, nuclear security and gender equality have been studied in this class. This is primarily an individual exploratory class where students will have the freedom to focus on their main interests. At the same time, students will learn to engage in dialogue on issues that may be controversial. Students will give regular current events reports, write documentary reviews and prepare educational slideshows to teach their classmates about a question they have explored. **GC**

Economics:

Making cents of personal and global financial literacy Grades 10, 11, 12

½ credit; semester course

Using real-life data and case study activities, students explore the issues involving their own financial literacy and the factors which influence the global economy. In the process, we examine basic microeconomic and macroeconomic concepts, such as how to budget one's money, how to be a wise consumer, making wise investment decisions, entrepreneurship, the importance of saving for retirement, supply and demand, taxes, the federal budget, and international trade. Assessments include applying data and concepts in authentic scenarios. **GC, STEM**

U.S. History Grade 11

1 credit, year course

The U.S. History curriculum explores the richness of the American experience through a thematic and chronological study from the colonial period to the present. Various perspectives are considered in discussions of the evolution of the United States of America. Concepts such as the importance of civil liberties, individualism, capitalism, frontier spirit, imperialism, conflict and compromise, sectionalism and nativism are examined as students explore the variety of facets of American development. How and why events happened, and the importance of their effects, are driving elements of this course.

While developing their skills as historians, the students build on their analytical reading and writing skills to explore questions such as: What is an American? What factors make up the American identity? How does the definition of "America/n" change over time? Students use a range of primary and secondary sources such as non-fiction and fiction works, audio and visual samples, artifacts and more, to examine the various periods and movements in America's history and the many ways in which those times have been interpreted. Students are challenged to develop their ideas in written and oral expression, expository and creative writing, civil discourse and open debate.

AP United States History Grade 11

1 credit, year course

(Prerequisite: Departmental permission)

The AP United States History curriculum explores the richness of the American experience. While developing their skills as historians, the students build on their analytical reading and writing skills to explore questions such as: What is an American? What factors make up the American identity? How does the definition of "America/n" change over time? Using a range of primary and secondary sources such as non-fiction and fiction works, audio and visual samples, artifacts and more, we critically examine the various periods and movements in America's history and the many ways in which those times have been interpreted. Students are challenged to develop their ideas in written and oral expression, expository and creative writing, civil discourse and open debate.

Students electing this course should have both the necessary verbal skills and a strong interest in U.S. culture and history; they should expect to do more reading, and reading of a more complex nature, as well as more analytical writing, than that required in the other U.S. History sections. Because of the pressure of time and the amount of material to be covered before the AP exam, students should also be aware of the necessity of working independently; class discussion in this course is not designed to explain what students have read, but to build upon it.

Recent American History: From JFK to Today Grade 12

½ credit, semester course

(Prerequisite: U.S. History or AP U.S. History)

This course examines major events from the presidency of John F Kennedy through 21st century Presidents. The speeches, films, newsreels, literature, primary documents, political campaigns and popular culture of this time are analyzed in written and spoken form. The assignments for this course include expository essays, case studies, group projects and class debates. The twentieth century was known as the American Century. Will the same be said of the twenty-first century?

Honors Seminar:** **Genocide:**

Confronting Evil and Stopping It Grades 10, 11, 12

½ credit, semester course

This course takes us on a journey into the heart of one of the most troubling aspects of the human condition: ethnic conflict and the “cleansing” that sometimes accompanies it. We begin with an examination of the most recognized genocide in recent history, the Holocaust. We also learn about other modern examples of “ethnic cleansing,” focusing on why these events occur, what drives people to participate in them, and how ethnic conflict can be avoided in future generations. We explore these questions, and more, utilizing a variety of modalities: students should expect a heavy emphasis on primary document readings, individual research and reporting, documentaries, and discussion. **GC**

Honors Seminar:** **African American Studies** Grades 10, 11, 12

½ credit, semester course

This Honors-level seminar will delve into the myriad contributions of African-Americans throughout American history. Beginning with the African diaspora, the course explores their influence in many facets of American life, from foods to media to technological innovations, political movements, and the arts. Using a range of primary and secondary sources, digital archives and documentaries, students will explore multiple perspectives on both obstacles and agency of African-Americans in making the “American story.” Individual research, interviews, and reflection are essential components of the class. **GC**

Honors Seminar:**

Philosophy and Practice in World Religions Grades 10, 11, 12

½ credit, semester course

This course explores the history, beliefs, practices, and contemporary influence of Hinduism, Buddhism, Judaism, Christianity, and Islam. Relying on a broad variety of primary and secondary

sources—including sacred texts, interviews, news articles, personal narratives, podcasts, film, artwork, and field trips—we ponder how people have grappled with the essential questions of "Who am I? What is my purpose in this life? What is the meaning of suffering and death? What are my obligations? What is right and ethical?" We learn about the rituals that shape the lives of followers and examine the roles religions play in current political and social controversies, both across the globe and here in the United States. Through rigorous Socratic discussion and frequent journal reflections, along with analytical writing and creative projects, students develop understanding of the enormous diversity and complexity of religious observance and consider how these shape identity. They may also have the opportunity to research a specific religious movement or issue according to their interests. **GC**

Honors Seminar:**

Sustainable Development Studies Grades 10, 11, 12

½ credit; semester course

Sustainable Development Studies is an honors seminar aimed to equip our graduates with the global citizenship competencies they need to navigate the complexities and interconnectedness of our global society. Based on the United Nations Sustainable Development Goals (SDGs), course content will expose students to a number of our global challenges, such as global health, sustainable cities, reduced inequalities, and responsible consumption and production. Students will dissect root causes and explore potential solutions. The course is designed for the curious learner looking to better understand the world and its people and the complexity of global issues. Students are expected to do considerable independent work, process scholarly reading, apply Design Thinking principles, analyze data, and participate in analytical discussions. This course may be taken one or both semester. **GC, STEM**

Developmental Psychology Grades 11, 12

½ credit; semester course

This course introduces the theories and current research that form the foundation of the study of human development from conception through adulthood. We study perception, learning theories, cognition, memory, language, and social and moral development. Additional topics will include heredity and environment, temperament, attachment, developmental milestones and expectations, child-rearing practices, gender, and cultural perspectives. This course requires students to participate in observations with children in the GFS Preschool. To comply with Maryland State requirements, students taking this course will need to be fingerprinted, obtain a medical release form from their doctor as well as complete and notarize the MSDE-Office of Child Care release form. **STEM**

Psychological Treatments and Disorders Grades 11, 12

½ credit, semester course

Using a variety of methods, the class will teach students about psychological disorders and their treatment, including different types of therapy styles. Some of the disorders covered include mood disorders, dissociative disorders, sleep disorders, psychotic disorders, and many others. Students will learn how to debate the various therapies of these disorders as well as examine the intersection between psychology and the legal system by examining things like insanity defenses throughout recent history and current events. **STEM**

AP Psychology Grade 12

1 credit, year course

(Prerequisite: Departmental permission)

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within

psychology. They also learn about the ethics and methods psychologists use in their science and practice. Areas covered include: history of psychology, research methods, biological bases of behavior, sensation and perception, cognitive psychology, physical, social and emotional development clinical psychologies, social psychology, and gender differences. This is a rigorous and demanding course requiring students to have a strong work ethic, to read at a rigorous pace, and to complete a variety of assessments, including independent research and analysis. Students are expected to demonstrate strong writing and analytical skills, and independent work habits. The AP Psychology course prepares students to sit for the AP Psychology exam in May. **STEM**

Art History* Grade 12 (*Grade 11 with permission*) 1 credit; year course

From ancient civilizations through the twenty-first century, this course surveys exemplary works of art from Africa, Asia, Europe, the Americas by investigating processes, aesthetics, and prevalent themes in relation to political, social, economic, religious, and educational contexts. The global perspective is presented with slides, videos, primary sources, text, and field trips to see works of art and architecture in the Baltimore-Washington region. Although not an AP-designated course, students may elect to prepare for and take the AP Art History exam in May and the teacher will provide support and guidance toward that goal for qualified, interested students. **GC, VA&D**

**Cross-listed in Visual Arts*

Latin Literature: Tales of Love on the Rocks* Grades 9-12 ½ credit, semester course
(*Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.*)

This literature course is for students who have mastered the study of advanced Latin grammar. Readings will include poems of Catullus, excerpts from Cicero's *Pro Caelio*, scenes from Ovid's *Metamorphoses* and Vergil's *Aeneid* (a preview of the poetry in the AP course). Through the careful reading of the Latin texts, students will develop and hone facility in translation, literary and historical interpretation, and critical analysis. **GC**

**Cross-listed in World Languages*

Latin Literature: Enemies of Rome* Grades 9-12 ½ credit, semester course
(*Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.*)

This literature course is for students who have mastered the study of advanced Latin grammar. Readings will focus on hostile reactions to Roman power and cultural influence as it dominated the Mediterranean region with a growing empire. Selections will include excerpts from Caesar's *De Bello Gallico* (a preview of the prose in the AP course), Cicero's *In Catilinam*, Sallust's *Bellum Catilinae*, Livy's *Ab Urbe Condita*, Tacitus's *Annales*, and poems of Catullus and Horace. Students will develop and hone facility in translation, literary and historical interpretation, and critical analysis. **GC**

**Cross-listed in History*

AP Macroeconomics* Grades 11, 12 1 credit, year course

**Offered through One Schoolhouse/Online School for Girls 2023-2024*

(*Prerequisite: Successful completion of Algebra II / Trig or higher math*)

See page 58 for full course description

AP Microeconomics* Grades 11, 12 1 credit, year course

**Offered through One Schoolhouse/Online School for Girls 2023-2024*

(*Prerequisite: Successful completion of Algebra II / Trig or higher math*)

See page 58 for full course description

Honors Seminar:** Ethics Grades 10, 11, 12

½ credit; semester course

(Not offered 2023-2024, offered in alternate years)

How does one define ethics? How does one develop a sense of ethics? Students examine various theoretical foundations. Our analysis and dissection of ethical viewpoints continues by applying principles to events and dilemmas including the media, medicine and health, war and conflict, business, and gender ethics. Students spend considerable time in Socratic dialogue as they weigh the choices and the consequences of one's choices when faced with moral dilemmas. Assessments include written analyses, reflective journaling, and a final exploration of one's "Moral Compass." [GC](#)

International Perspectives on Women, Gender, and Health Grades 10, 11, 12

(Not offered 2023-2024)

½ credit; semester course

This innovative Public Health course is designed to unite the humanities and science to provide students with the knowledge, understanding, and skills needed to identify and understand emerging global issues related to girls' and women's health. Women's health issues including reproductive health, child marriage and motherhood, and disparities impacting the health and well-being of women and girls will be examined through the lenses of culture, government, education, and economics. Particular attention will be paid to issues that affect adolescent women internationally and in the United States. This course is recommended for students with an interest in a Public Health WISE placement and/or in the Jenkins Fellows program. [GC](#), [STEM](#)

Modern Latin America Grades 10, 11, 12

½ credit; semester course

(Not offered 2023-2024)

Latin America is a diverse and expansive region, which represents many ethnicities, interests and cultures. This course examines Latin America since its Age of Independence in the 1800s. Both parallels and differences among the various nations of Latin America will be explored. Students learn about the leaders, artists, economies, politics, and popular cultures of Latin America through primary and secondary sources, case studies, literature and video. Current issues regarding Latin American relations with the United States and immigration policies are also important topics of discussion. [GC](#)

Latin Literature: Death of the Roman Republic: Power, Politics, and Public Disorder* Grades 9-12

(Not offered 2023-2024, offered in alternate years)

½ credit; semester course

(Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.)

This literature course is for students who have mastered the study of advanced Latin grammar. Selections will include excerpts from Cicero's speech *In Catilinam*, Sallust's *Bellum Catilinae*, and Caesar's *Bellum Civile*. Some secondary source material will be read in translation. Through the careful reading of Latin texts, students will develop facility in translation, literary and historical interpretation, and critical analysis [GC](#)

**Cross-listed in World Languages*

Latin Literature: Laugh Like a Roman: Comedy, Satire, and Personal Insults* Grades 9-12

(Not offered 2023-2024)

½ credit; semester course

(Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.)

This literature course is for students who have mastered the study of advanced Latin grammar. Selections will include excerpts from playwrights Plautus and Terence, satirists Petronius and Juvenal, and masters of invective Catullus and Martial. Some secondary source material will be read in translation. Through the

careful reading of Latin texts, students will develop facility in translation, literary and historical interpretation, and critical analysis. [GC](#)

**Cross-listed in World Languages*

**Honors Seminars are designed to push students to maximize their independent critical thinking skills. Students read and learn from a wide range of scholarly sources and process their reactions, questions, critiques, and connections through frequent reflective writing and student-led Socratic discussion. An emphasis is placed on exploring multiple viewpoints and becoming comfortable with complexity and dialogue that may lead to greater understanding but not resolution or definitive “answers.” In addition to analyzing material at a sophisticated level, students in Honors Seminars are asked to research, synthesize, and apply concepts both to their personal lives and to inform, educate, or make change in the wider community.

Mathematics

The Mathematics Department believes that students need to have mathematical competency and confidence to be able to participate fully in modern society. We wish to develop in all students the analytical and technical skills that will prepare them for a college education, to develop their understanding of the underlying concepts of mathematics, to foster independent thinking, to increase enjoyment of the subject, and to help every student attain the self-confidence that comes from genuine achievement.

Requirements:

- 3 credits
- Coursework through Algebra II or beyond Algebra II
- Enrollment in a math class all four years

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
9 - 10	Algebra I	Year	1.0		
9 - 11	Geometry	Year	1.0		Algebra I
9 - 11	Geometry & Trigonometry Honors	Year	1.0		Algebra I and Dept. permission
9 - 12	Algebra II	Year	1.0		Geometry
9 - 12	Algebra II & Trigonometry Honors	Year	1.0		Geometry or Geometry & Trigonometry Honors and Dept. permission
10 - 12	Functions & Trigonometry	Year	1.0		Algebra II
10 - 12	Precalculus	Year	1.0		Algebra II and Dept. permission
10 - 12	Precalculus Honors	Year	1.0		Algebra II /Trigonometry Honors and Dept. permission
10 - 12	Statistics	Year	1.0	GC STEM	Algebra II
10 - 12	Statistics: Descriptive	Fall	0.5	GC STEM	Algebra II
10 - 12	Statistics: Inferential	Spring	0.5	GC STEM	Descriptive Statistics
11 - 12	Calculus	Year	1.0	STEM	Precalculus and Dept. permission
10 - 12	AP Statistics	Year	1.0	GC STEM	Algebra II /Trigonometry and Dept. permission
11 - 12	AP Calculus AB	Year	1.0	STEM	Precalculus or Precalculus Honors and Dept. permission
11 - 12	AP Calculus BC	Year	1.0	STEM	Precalculus Honors and Dept. permission
12	Multivariate Calculus and Linear Algebra	Year	1.0	STEM	AP Calculus BC and Dept. permission

Algebra I Grades 9, 10

1 credit; year course

A thorough study of basic algebra, focusing both on symbolic manipulation and applied problem-solving. Topics include the four arithmetic operations with real numbers and variables; equations and inequalities;

graphs and functions; polynomials and factoring; irrational numbers and radicals; and quadratic functions.

Geometry Grades 9, 10, 11

1 credit; year course

(Prerequisite: Algebra I)

While engaging in a structured review of Algebra I topics, this course will be a rigorous study of Euclidean geometry including points, lines, planes, angles, parallel and perpendicular lines, triangles, quadrilaterals, polygons, congruence and similarity, inequalities in triangles, right triangle trigonometry, circles, area and volume, and coordinate geometry. The nature of deductive proof and the structure of a mathematical system are introduced throughout the course.

Geometry & Trigonometry Honors Grades 9, 10, 11

1 credit; year course

(Prerequisite: Algebra I and Departmental permission)

A deeper treatment of all the geometry topics listed above, including more extensive study of trigonometry and coordinate geometry.

Algebra II Grades 9, 10, 11, 12

1 credit; year course

(Prerequisite: Geometry)

This intermediate algebra course includes the topics of real numbers, linear equations and inequalities, systems of linear equations and inequalities, polynomials, rational expressions, graphs and functions, factoring, radicals, complex numbers, quadratic and polynomial equations, and exponents.

Algebra II & Trigonometry Honors Grades 9, 10, 11, 12

1 credit; year course

(Prerequisite: Geometry or Geometry & Trigonometry Honors and Departmental permission)

This course includes all the above Algebra II topics in greater depth and also covers variation and trigonometry and their applications. Trigonometry topics will include triangle trigonometry, circular functions, and radian measure.

Functions & Trigonometry Grades 10, 11, 12

1 credit; year course

(Prerequisite: Algebra II)

This course provides a comprehensive review of algebraic topics including polynomial, rational, radical and exponential functions and introduces logarithmic functions and trigonometry.

Precalculus Grades 10, 11, 12

1 credit; year course

(Prerequisite: Algebra II and Departmental permission)

This course covers more advanced algebra topics and trigonometry. Major topics are linear, quadratic, polynomial, rational, exponential and logarithmic functions and their graphs, inequalities, general properties of functions, properties and graphs of the trigonometric functions, the inverse trigonometric functions, trigonometric equations and applications, triangle trigonometry, trigonometric formulas and identities, and limits.

Precalculus Honors Grades 10, 11, 12

1 credit; year course

(Prerequisite: Algebra II & Trigonometry Honors and Departmental permission)

The focus of this course is the concept and applications of functions. Trigonometry is covered in depth: trigonometric equations and their applications, triangle trigonometry, and trigonometric addition formulas. Other Precalculus topics are polar coordinates and complex numbers, sequences and series, and vectors

and determinants. The following calculus topics are studied: limits and their properties, differentiation rules, the applications of differentiation.

Statistics Grades 10, 11, 12

1 credit; year course

(Prerequisite: Algebra II)

This introductory course will emphasize conceptual understanding and applications of statistics; computations, plotting, and regressions will be done on the TI-83/84 graphing calculator. Topics will include organization and analysis of data, averages and variation, regression and correlation, probability, normal curves, distributions, estimation and inference. This course may be taken as a student's sole math class or concurrently with another math course. **GC, STEM**

Statistics: Descriptive Grades 10, 11, 12

½ credit; semester course

(Prerequisite: Algebra II)

This introductory course will emphasize conceptual understanding and applications of statistics; computations, plotting, and regressions will be done on the TI-83/84 graphing calculator. Topics will include organization and analysis of data, averages and variation, regression and correlation, and probability. **GC, STEM**

Statistics: Inferential Grades 10, 11, 12

½ credit; semester course

(Prerequisite: Descriptive Statistics)

This course will continue to emphasize conceptual understanding and applications of statistics; computations, plotting, and regressions will be done on the TI-83/84 graphing calculator. Topics will include 42 normal curves, distributions, estimations, and inference. **GC, STEM**

AP Statistics Grades 10, 11, 12

1 credit; year course

(Prerequisite: Successful completion of Algebra II & Trigonometry and Departmental permission)

This course is a non-calculus-based, college-level course in statistics. Students planning collegiate studies in the physical sciences, social sciences, or business fields should consider taking this course. AP Statistics focuses on four conceptual themes: exploring data, planning a study, anticipating patterns, and inference. This course is designed to provide students with opportunities to design, administer, tabulate and analyze results from surveys and experiments. This course will also help students develop their analytical reading and writing capabilities. Students who take this course will be expected to take the Advanced Placement Statistics examination. **GC, STEM**

Calculus Grades 11, 12

1 credit; year course

(Prerequisite: Precalculus and Departmental permission)

An introduction to differential and integral calculus within the larger context of the function. Major topics are functions, limits, derivatives, applications of differentiation, and integrals and their applications. Students will strengthen their understanding of Precalculus mathematics and be prepared for college calculus. **STEM**

AP Calculus AB Grades 11, 12

1 credit; year course

(Prerequisite: Honors Precalculus or Precalculus and Departmental permission)

A college-level calculus course covering the basic theory and applications of the derivative and integral. Students who take this course will be expected to take the Advanced Placement Calculus AB examination. **STEM**

AP Calculus BC Grades 11, 12

1 credit; year course

(Prerequisite: Honors Precalculus and Departmental permission)

This more advanced college-level calculus course includes, in addition to the topics of the AB course, advanced techniques of integration, infinite series, and calculus with parametric, polar, and vector-valued functions. Students who take this course will be expected to take the Advanced Placement Calculus BC examination. **STEM**

Multivariate Calculus and Linear Algebra Grade 12

1 credit; year course

(Prerequisite: AP Calculus BC and Departmental permission)

This course will cover some topics that are not part of the AP Calculus BC curriculum, such as hyperbolic functions, centers of mass and centroids, among others. We will also explore topics that are studied in Multivariable Calculus, Differential Equations and Linear Algebra. Some of the Multivariable topics include vectors and vector valued functions, differentiation in several variables, optimization in several variables, multiple integration, and line and surface integrals. In addition, Differential Equations topics will include solving first order and simple higher order equations with applications to various scientific fields, laws of planetary motion, fundamental theorems of vector analysis, solving linear differential equations and their applications, and Laplace transform methods. Finally, some of the Linear Algebra concepts covered will be vector spaces, linear transformations, matrices, systems of linear equations and determinants. A student who is qualified for this course should be prepared for independent study. **STEM**

Physical Education and Athletics

The Physical Education Department provides an opportunity for physical activity for each student and requires participation in all classes specific to each area of study. Students are encouraged to develop positive habits and attitudes toward fitness and healthful living through these classes. The Athletic Program provides students with many opportunities to compete in a sport at a level appropriate to the student's skill and experience while keeping safety in mind. Through participation on a team, the student is encouraged to develop favorable attitudes of competition, sportsmanship, responsibility, loyalty, and a sense of contribution to group effort. Every effort will be made to provide multiple levels of team opportunities (V, JV); however, participation and numbers and/or league sponsorship may preclude some teams from being sponsored by Garrison Forest School.

Requirements:

- Each student entering Garrison Forest Upper School as a freshman must complete six (6) seasons of participation before the conclusion of her junior year.
- Students new to Garrison Forest Upper School as sophomores must complete four (4) seasons of participation before the conclusion of their junior year.
- Students new to Garrison Forest Upper School as juniors must complete two (2) seasons of participation before the conclusion of their junior year.
- If a WISE student has not already completed her graduation requirement, she is expected to participate in physical education class on days when she does not have off-campus WISE responsibilities.
- All physical education activities have a value of one (1) point, including:
 - Interscholastic sports
 - Physical education classes
 - Dance
 - On-campus riding instruction (3 lessons per week)
 - Polo
 - Athletic Managing
 - Approved independent physical education
- Students may only participate in one activity per season (fall, winter, spring) for credit;
- Once a team roster is posted, students are committed to that activity.
- Attendance AND participation are required in order to receive a credit.

Fall Options	Winter Options	Spring Options
Tennis Team Field Hockey Team Cross Country Team Volleyball Team Soccer Team Athletic Manager Dance Riding Team (fee) Riding Lessons (fee) Polo (fee) PE Class (Yoga, Athlete Academy, and Self Defense) Independent PE (with PE Chair approval)	Basketball Team Lacrosse Team Squash Team (fee) Track and Field Athletic Manager Dance Riding Team (fee) Riding Lessons (fee) Polo (fee) PE Class (Yoga, Athlete Academy, Fit for Life) Independent PE (with PE Chair approval)	Badminton Team Lacrosse Team Golf Team Track and Field Athletic Manager Dance Riding Team (fee) Riding Lessons (fee) Polo (fee) PE Class (Yoga, Athlete Academy, Fitness Center 101) Spring Musical Independent PE (with PE Chair approval)

A student may miss a maximum of one PE class. Any additional missed classes must be made up in a physical activity approved by the PE Department Chair. Students who do not meet the Physical Education requirement will fail the class for the season and must make up the work satisfactorily in order to receive credit for the class. The student will meet with the Chair of the Physical Education Department to determine when and how the work will be made up.

Independent Physical Education *(requires formal written request and permission from Department)*

Program criteria and guidelines include:

- The activity/discipline is not available at Garrison Forest School OR
- A student requesting an Independent Study in an activity / discipline that Garrison Forest offers must first represent Garrison Forest on that team. (A student not representing Garrison Forest School in an interscholastic sport will not be granted an independent study in that discipline)
- At least 2 hours of the proposed activity per week and at least 2 years of involvement in this activity prior to the request for independent status.
- The activity must be supervised by a certified or qualified professional in the field.
- The activity does not occur during the same competitive season at Garrison Forest School.
- A list of dates, times and locations for competitions/performances is included in the proposal for the season credit requested.

Students are expected to participate in Garrison Forest Physical Education classes until their request for credit is granted.

Dance

The Upper School Dance program is a technique-based, challenging after-school program in which students focus on the development of strong dance skills, build self-confidence, and explore artistic self-expression. Three levels of dance are offered: Beginner, Intermediate, and Advanced. These three levels offer students the opportunity to learn dance discipline and performance skills through the study of jazz, ballet, and lyrical/contemporary dance styles. Each class is structured to include warm-up exercises, center combinations, and locomotor movement patterns that require significant physical exertion and concentration. Opportunities for performance include informal showings throughout the year and a full concert production in the spring. All students taking dance in the spring season are required to perform in the spring concert and attend all tech rehearsals the week of the performance. In addition, students are encouraged to attend professional performances as scheduled by the instructor. Some out-of-class rehearsals will be required of Intermediate and Advanced students in preparation for performances. Students earn points toward their Physical Education credit for each season of Dance.

Beginner Dance Grades 9-12

1 credit per season; Fall, Winter, Spring

(No audition necessary)

Beginner Dance is offered Tuesdays and Thursdays from 3:30-4:30pm. The primary goals of Beginner Dance are to foster the understanding of dance as an aesthetic, kinetic art form and to introduce elements of jazz, ballet, and contemporary dance styles in a studio setting. Students will learn to prepare the body for dance through a warm-up incorporating strengthening and stretching exercises. They will learn basic ballet leg work and positions, turns and leaps, modern dance and jazz curvature and contraction of the torso, and short dance combinations. Students in the second semester will learn and perform a complete dance from start to finish. Students with no prior dance experience do not need to attend the placement class held prior to the start of the semester.

Intermediate Dance Grades 9-12

1 credit per season; Fall, Winter, Spring

(Placement audition or permission of instructor)

Intermediate Dance meets Tuesdays and Thursdays from 4:30-5:45 pm and is offered to students who have some prior dance experience or who have made significant progress in the Beginner course. Year-long participation is strongly encouraged, but not required. Students placed at the Intermediate level build on the foundation of basic dance elements, continue to study ballet technique, explore dance combinations that are increasingly complex and expand into complete dances, and focus on dance as a performing art. This course strongly emphasizes performance and will include performances throughout the year as well as a full-length two-evening production in the spring. Intermediate Dance students are required to attend some out-of-class rehearsals on a very occasional basis in preparation for performance.

Advanced Dance Grades 9-12

1 credit per season; Fall, Winter, Spring

(Placement audition or permission of instructor)

Advanced Dance meets Mondays from 4:00-5:30 pm and Wednesdays from 3:30-5:00 pm and Fridays as needed. It is offered to students who have strong technique and experience and/or those who have made significant progress in Intermediate Dance. Advanced Dance functions as both a technical class and a company rehearsal for in-depth choreography to be performed later in the year. This course is designed to develop discipline and performance skills through serious and concentrated study of dance technique in jazz, ballet, and lyrical/contemporary dance styles. This course strongly emphasizes performance and will

include performances throughout the year as well as a full-length two-evening production in the spring. Students are required to attend out-of-class rehearsals occasionally in preparation for performances or as needed when working with guest choreographers. Because of the rigorous nature of this company-level class, year-long participation, beginning in the fall, is required. Exceptions will only be considered if a student is currently taking dance outside of school, has extensive prior dance experience, and has received permission from the instructor.

Blue Allegro Grades 9-12

1 credit per season; year course

(By audition or invitation)

Blue Allegro is the performing company of Advanced Dance, which develops professional approaches to rehearsals and performances. Students work in the corps as well as soloists while being exposed to a variety of styles, choreographers, repertoire, and music. The company attends the annual Independent Dance Network Festival and the Maryland Dance Alliance as well as performing on campus throughout the school year. A student must have reached the advanced level, have extensive prior dance experience, and show strong leadership qualities.

Science

The goal of the Science Department is to have each student become scientifically literate. To that end, all courses are laboratory-oriented and stress the ability of the student to experience opportunities to develop critical thinking skills using the logical, scientific mode of reasoning which will prepare them for future, lifelong learning. It is our hope that each student will emerge with enthusiasm and appreciation for science and its dynamic, changing nature, and with awareness of global concerns and current issues.

Requirements and Recommendations:

- 3 credits
- Coursework to include one of each of the lab sciences: biological, chemical and physical
- Students are encouraged to complete Biology, Chemistry, and Physics before signing up for an advanced elective.
- Students interested in the WISE program are encouraged to develop comfort with computer programming through self-study or a computer science course prior to or concurrent with WISE participation.

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
9-10	Biology	Year	1.0		
10-11	Chemistry	Year	1.0		Biology
10-11	Honors Chemistry	Year	1.0		Biology, completion of Geometry recommended
11-12	Physics	Year	1.0		Chemistry and Algebra II (or Algebra II concurrently)
11-12	Honors Physics	Year	1.0		Chemistry and Honors Precalculus concurrently or Dept permission
11-12	Honors Physics with Calculus	Year	1.0		Honors Chemistry, AP Calculus AB (or AP Calculus BC concurrently) and Dept. permission
10-12	Engineering Design	Year	1.0	GC STEM VA&D	
11-12	AP Biology	Year	1.0	STEM	Biology, Chemistry and Dept. permission
11-12	AP Chemistry	Year	1.0	STEM	Biology, Chemistry, Algebra II and Dept. permission
11-12	AP Environmental Science	Year	1.0	GC STEM	Biology, Chemistry, and Algebra II Grade 11 with Dept. permission
11-12	Biochemistry, Microbiology and Public Health Research (Honors) - Small World Initiative	Year	1.0	GC STEM	Biology, Chemistry and Dept. permission
11-12	Ecology, Evolutionary Biology, and Behavior	Year	1.0	STEM	Biology, Chemistry
11-12	Women in Science and Engineering (WISE)	Semester	0.5	STEM	Biology, Chemistry and Algebra II See WISE for additional criteria
12	Biotechnology / Forensic Science	Year	1.0	STEM	Biology & Chemistry

Biology Grades 9, 10

1 credit; year course

A study of basic biological principles with an emphasis on the place of humans in the biosphere, the relation of human physiology to medical conditions, and the ethical and social implications of biological decisions. The topics covered include basic chemistry, respiration, photosynthesis, cell structure and function, human anatomy and physiology, genetics, evolution and ecology. Laboratory is an integral part of the course, and provides students the opportunity for hands-on experiences in the field of biology. Beyond mastery of subject matter, the most important goal is to encourage an appreciation for life, a sense of wonder, and an understanding of the complexity and efficiency of living things.

Chemistry Grades 10, 11

1 credit; year course

(Prerequisite: Biology)

Chemistry is an introduction to the chemical and physical properties of matter. The goal of this course is to enable students to discover the principles of chemical behavior and their applications to the world. Topics include atomic and molecular structure, states of matter, chemical and physical behavior of elements and compounds, solution chemistry, kinetics, equilibrium, thermochemistry, and acid-base chemistry. Emphasis is placed on development of good qualitative skills.

Honors Chemistry Grades 10, 11

1 credit; year course

(Prerequisite: Biology. Completion of Geometry recommended)

Honors Chemistry covers the same topics as Chemistry but information is covered in greater breadth and depth. Topics are emphasized through a deeper laboratory and quantitative approach. This course is recommended for students interested in pursuing science at the college level, entering STEM-related careers, or planning to take AP Biology or AP Chemistry.

Physics Grades 11, 12

1 credit; year course

(Prerequisite: Chemistry and Algebra II or Algebra II concurrently)

This introductory course in physics assumes a background in Algebra and Geometry. Trigonometry is presented and used throughout the course. Topics covered include Newtonian mechanics (kinematics and dynamics), energy, waves and optics. Laboratory work for introducing and applying concepts is an integral part of the course. Building and computer projects offer opportunities to apply the analytical and problem solving skills that are emphasized.

Honors Physics Grades 11, 12

1 credit; year course

(Prerequisite: Chemistry and Honors Precalculus concurrently or Departmental permission)

Students will gain an understanding of core physics principles and then apply them to problem-solving exercises and experimental investigations. Extensive use of trigonometry and algebra will be used to analyze two-dimensional motion. Topics of study from classical and modern physics include Newtonian mechanics, electricity and magnetism, and waves. Laboratory work is an integral component of this course. Technology including scientific calculators, probeware, graphing and data analysis software, and physics apparatus is used throughout this course.

Honors Physics with Calculus Grades 11, 12

1 credit; year course

(Prerequisite: Honors Chemistry, AP Calculus AB (or AP Calculus BC concurrently), and Dept. permission)

In this demanding course, students will gain an understanding of core physics principles and then apply them to problem-solving exercises and experimental investigations using advanced mathematical

methods, including calculus. Topics of study from classical and modern physics include Newtonian mechanics, electricity and magnetism, and waves and optics. Laboratory work is an integral component of this course. Technology including scientific calculators, probeware, graphing and data analysis software, and physics apparatus is used throughout this course.

Engineering Design* Grades 10, 11, 12

1 credit; year course

This course uses the E4USA Engineering For Us All curriculum developed in partnership with a host of major US university engineering departments. The curriculum itself has four primary focuses: discovering engineering, engineering in society, engineering professional skills and engineering design. The backbone of this course is active, hands-on learning of problem-solving, collaboration, and communication skills that can be applied and adapted to different environments; it emphasizes developing as an empathetic engineer. As part of this course, students will be able to elect whether to work on traditional engineering projects or on a project focused on robotics. **GC, STEM, VA&D**

**Cross-listed in Computer/Technology*

AP Biology** Grades 11, 12

1 credit; year course

(Prerequisite: Biology, Chemistry, and Departmental permission)

The course studies the fundamental biological principles. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes—energy and communication, genetics, information transfer and ecology. The equivalent of a two-semester college-level Biology course, AP Biology is designed to prepare students for the AP exam and for further study in science. **STEM**

AP Chemistry** Grades 11, 12

1 credit; year course

(Prerequisite: Biology, Chemistry, Algebra II and Departmental permission)

This course will allow students to attain a depth of understanding of fundamentals and competence in dealing with chemical problems. It integrates the three aspects of a college level course: development of theoretical concepts, construction of problem-solving techniques, and participation in a laboratory program. The course will contribute to the development of the students' abilities to think clearly and to express their ideas, mathematically and in writing, with clarity and logic. The equivalent of a two semester college-level Chemistry course, AP Chemistry is designed to prepare students for the AP exam and for further study in science. **STEM**

AP Environmental Science** Grade 12 (Grade 11 with permission)

1 credit; year course

(Prerequisite: Biology, Chemistry, Algebra II)

The AP Environmental Science course provides students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. The course will involve ongoing lab inquiry and fieldwork analysis, allowing for a systematic and scientific study of the environment and our role in it. Environmental Science is interdisciplinary; it will embrace a wide variety of topics from different areas of study. The equivalent of an introductory college level Environmental Science course, AP Environmental Science is designed to prepare the student for the AP exam. **GC, STEM**

Biochemistry, Microbiology and Public Health Research (Honors) -**Small World Initiative** Grades 11, 12

1 credit; year course

(Prerequisite: Departmental permission)

Microorganisms that surround us coexist with or without causing harm and can even be isolated and used to produce drugs such as antibiotics. A portion of the course will be dedicated to learning university-level research techniques used to discover and produce new antibiotics. The project entails: isolation and classification of new antibiotic producing bacteria species, extraction and analysis of novel antibiotic compounds, and student designed experimentation. Students will enhance their lab experiences by learning about the microbiological world, mechanisms of antibiotic action and the development of antibiotic resistance in the context of basic biochemical processes. In addition, we will discuss viruses, how they lead to human disease, and the role of public health as it relates to infectious diseases. **GC, STEM**

Ecology, Evolutionary Biology, and Behavior Grades 11, 12

1 credit; year course

(Prerequisite: Chemistry)

This course will allow students to discover the behavioral and physiological characteristics of the animals. Students will explore the purpose behind the many curious actions of animals, as well as explore the amazing diversity of life on our planet. The class will employ lecture, lab work and campus field work to better understand the nature of the world around us. Lecture sessions will center on the evolutionary foundations of behavior and morphology, how form relates to function, as well as the fundamentals of ecology and taxonomy. Assessments have a particular focus on application of class material to form hypotheses and design experimental procedures, with the goal of “doing science” rather than just learning about science. Lab and field work will accentuate understanding of class topics and promote a sense of natural wonder. **STEM**

Women in Science and Engineering (WISE) Grades 11, 12

½ credit; semester course

(Prerequisites: Chemistry and Algebra II. See [WISE](#) for additional criteria for enrollment)

The WISE enrollment process requires an application and recommendation by the student’s advisor and WISE faculty, based upon academic record and capacity to succeed in the program while maintaining grades in GFS coursework. Enrollment also requires participation in the non-credit mini-course, *WISE Introduction to Research (WITR)*. **STEM**

Biotechnology / Forensic Science Grade 12

1 credit; year course

(Prerequisite: Successful completion of Biology and Chemistry)

Biotechnology: Forensic Science is a laboratory based course involving scientific investigation using microscopy, chromatography, comparative analysis techniques, electrophoresis, spot tests, and qualitative analysis examinations. The focus is on problem solving, designing experiments, testing, and making conclusions based on empirical evidence. Writing is an integral part of the course with students being expected to communicate laboratory reports, results, and conclusions, and analyze case studies. The study of forensics incorporates the use of science and technology to investigate and establish facts in criminal and civil courts of law. It uses methods of science to help “solve” crimes and bring criminals to justice. Forensic Science is an interdisciplinary class designed to introduce students to the field of forensics by the use of concepts in many areas including biology, chemistry, zoology, anatomy, genetics, physics, Earth Science, and statistics. **STEM**

World Languages

The World Languages Department strives to develop a love of and an appreciation for the power of languages. We seek to develop fluency, language awareness, cultural competency, and an analytical mind. It is important to us that all our courses have a strong cultural component in order to offer an authentic experience and cultivate a global citizen's perspective. Our modern language courses aim to develop equally the speaking, listening, writing, and reading skills of our students by providing classes that are taught progressively in the target language. In Latin the focus is on developing analytical reading skills enabling students of all levels to appreciate literature and cultivate the skills of literary criticism. We believe in differentiated teaching, so that students of diverse abilities can gain access to the beautifully complex world of languages. Students will emerge from our curriculum with a solid language foundation, an appreciation for diverse cultures, and the tools to navigate and contribute to a multilingual and multicultural world.

Depending on enrollment numbers, some levels may be offered through online partnerships.

Requirements and Recommendations.

- 3 credits
- Students are required to complete Level III in one world language, and it is recommended that they carry at least one world language through grade 12.
- Students entering grade 9 with a modern language and Latin are encouraged to continue both languages at least through grade 9.
- International students for whom English is not their first language are exempt from this requirement, but may elect to take World Language courses.
- Students are placed at the appropriate level depending on previous experience. Continuation at the Honors level from one year to another depends on current performance; students wishing to transition to an Honors level may need to complete additional work and take a placement test.

Grades Eligible	Course	Term	Credit	GSP	Prerequisite
FRENCH					
9-12	French I	Year	1.0		
9-12	French II	Year	1.0		French I
9-12	French II: Honors	Year	1.0		French I and Dept. permission
9-12	French III	Year	1.0		French II
9-12	French III: Honors	Year	1.0		French II Honors and Dept. permission
9-12	Advanced French: Stories of Women in the Francophone World	Year	1.0	GC	French III
9-12	French IV Honors/ V Honors/ AP French Language and Culture	Year	1.0	GC	French III Honors or French IV Honors and Dept. permission
9-12	<i>Advanced French: A Global Perspective</i>	<i>Year</i>	<i>1.0</i>	<i>GC</i>	<i>French III Not offered in 2023-2024</i>

LATIN					
9-12	Latin I	Year	1.0		
9-12	Latin II	Year	1.0		Latin I
9-12	Latin II: Honors	Year			Latin I and Dept. permission
9-12	Latin III	Year			Latin II
9-12	Latin III: Honors	Year	1.0		Latin II Honors
9-12	AP Latin	Year	1.0		Latin III Honors and Dept. permission
9-12	Latin Literature: Tales of Love on the Rocks	Fall	0.5	GC	Latin III or III-Honors; this course is offered as a pre- or post-AP option
9-12	Latin Literature: Enemies of Rome	Spring	0.5	GC	Latin III or III-Honors; this course is offered as a pre- or post-AP option
9-12	<i>Latin Literature: Death of the Roman Republic: Power, Politics, and Public Disorder</i>	<i>Semester</i>	<i>0.5</i>	<i>GC</i>	<i>Not offered in 2023-2024</i>
9-12	<i>Latin Literature: Laugh Like a Roman: Comedy, Satire, and Personal Insults*</i>	<i>Semester</i>	<i>0.5</i>	<i>GC</i>	<i>Not offered in 2023-2024</i>
SPANISH					
9-12	Spanish I	Year	1.0		
9-12	Spanish II	Year	1.0		Spanish I
9-12	Spanish II: Honors	Year	1.0		Spanish I and Dept. permission
9-12	Spanish III	Year	1.0		Spanish II
9-12	Spanish III: Honors	Year	1.0		Spanish II Honors and Dept. permission
9-12	Advanced Spanish: Latin American Culture	Year	1.0	GC	Spanish III
9-12	Spanish IV: Honors	Year	1.0	GC	Spanish III Honors and Dept. permission
9-12	Advanced Spanish: A Global Perspective	Year	1.0	GC	Adv. Spanish: Latin American Culture or Spanish IV: Honors
9-12	AP Spanish Language and Culture	Year	1.0	GC	Spanish IV Honors and Dept. permission
9-12	AP Spanish Literature and Culture	Year	1.0	GC	Online through One Schoolhouse
CHINESE					
9-12	Chinese II and above <i>*online courses</i>	Year	1.0	GC	

French

French I Grades 9-12

1 credit; year course

This course introduces the fundamental elements of the French language within a cultural context.

Students acquire basic listening, speaking, reading, and writing skills while exploring the daily life of

various French-speaking communities around the world. By the end of the year, they can use basic vocabulary and grammar to talk, read, and write about their family, food, school, daily routine, and major French customs.

French II Grades 9-12

1 credit; year course

(Prerequisite: French I)

This course reviews and builds on the grammar, vocabulary, and cultural competency taught in French I to enhance conversational, listening, reading, and writing skills. Audio and video programs will be used to bring francophone cultures into the classroom and make the study of French a complete cultural and linguistic experience.

French II: Honors Grades 9-12

1 credit; year course

(Prerequisite: French I and Departmental permission)

French II Honors is designed to consolidate the language skills (listening, speaking, reading, and writing) that students have acquired in French I, as well as to introduce more complex grammatical structures and broader vocabulary. Students develop the ability to apply their language skills toward interpretive, presentational, and interpersonal communication. They continue to explore the cultures of the French-speaking world through videos, short documentaries, and informational texts.

French III Grades 9-12

1 credit; year course

(Prerequisite: French II)

This intermediate course reviews and builds on the grammar, vocabulary, and cultural competency taught in French II to enhance conversational, listening, reading, and writing skills. Students explore the societies and cultures of the French-speaking world through a variety of authentic texts, interviews, commercials, documentaries, and short films. They make presentations, stage skits, converse with their classmates, and write short essays. By the end of the year, they can express themselves with simple but accurate grammar about present, past, and future events. Also, they have acquired enough vocabulary and cultural competency to compare their own community with the communities of the French-speaking world.

French III: Honors Grades 9-12

1 credit; year course

(Prerequisite: French II Honors and Departmental permission.)

This intermediate course is designed for students who are on track to take the AP exam. Students will expand upon their speaking, listening, reading, writing, and cultural skills through an accelerated study of vocabulary and grammar, numerous informational and short literary texts, as well as short movies, interviews, commercials, and news broadcasts. They will strengthen their oral fluency by making presentations and engaging in spontaneous conversations. They will also write essays on various aspects of the cultural and social life of the French-speaking world. The class is taught mostly in French.

Advanced French:

Stories of Women in the Francophone World Grades 9-12

1 credit; year course

(Prerequisite: French III)

This course will explore a variety of stories about women, from Coco Chanel to the role of women in Africa to the successes and challenges of female artists, scientists and archaeologists, to gender roles in various francophone societies. This course is meant for students who wish to research, present and discuss a wide range of francophone topics and to expand upon their fluency and cultural literacy. The course will

be taught in French. The curriculum will alternate so that students are not repeating the same material if they participate in this course for two years. **GC**

French IV: Honors/ V Honors/ AP French Language and Culture Grades 9-12 1 credit; year course
(Prerequisite: French III Honors or French IV Honors and Departmental permission)

This advanced course is designed for students who have taken Honors French courses throughout the Upper School and who are on track to take the AP Language Exam. The French IV Honors students (typically juniors) will have two years to prepare for the Advanced Placement Exam while the French V AP students (typically seniors) will take the AP Language and Culture Exam at the end of the course year. Students in both classes will work towards further developing their speaking and listening skills as well as reading comprehension and written expression. They will explore the five AP topics (Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, and Families and Communities) through informational and literary sources spanning the French-speaking world. Students will also receive a complete grammatical review while acquiring additional advanced-level vocabulary. **GC**

Advanced French: A Global Perspective Grades 9-12 1 credit; year course
(Prerequisite: French III)

(Not offered 2023-2024, offered in alternate years)

This course aims at placing the French language and francophone cultures in a global context. It will explore a wide range of topics, such as the North African history behind Antoine de Saint-Exupéry's *Little Prince* and the influence of Islamic culture in Europe. This course is meant for students who wish to explore, research, present and discuss a wide range of francophone topics and to expand upon their fluency and cultural literacy. The course will be taught in French. The curriculum will alternate so that students are not repeating the same material if they participate in this course for two years. **GC**

Latin

Through a framework of Roman civilization and classical mythology, the Latin program builds the skills that will enable students to read original Latin literature. *Cambridge Latin Course*, a reading-based approach, is the foundation of the curriculum, and by Level III students begin to read selected works of Ovid, Catullus, Pliny, Martial, and Vergil. In all courses, the development of English vocabulary through Latin roots is stressed.

Latin I Grades 9-12 1 credit; year course

Latin I introduces the fundamentals of Latin grammar (case, tense, sentence structure) through the reading-based approach of the Cambridge Latin Course. Following the daily life of a family in Pompeii, the stories build to the eruption of Mt. Vesuvius. Quintus, a survivor, travels to Roman Britain, and through his adventures, students begin to learn about life in the Roman provinces. In this course, students develop language awareness and learn to use the building blocks of Latin roots to strengthen English vocabulary.

Latin II Grades 9-12 1 credit; year course
(Prerequisite: Latin I)

As the Cambridge Latin Course readings in Latin II grow more complex, the plot focuses on Quintus' adventures in the Roman provinces of Britain and Egypt. Building on the basics of Latin I, students

further develop their knowledge of grammar and sentence structure, including relative clauses, participles, and subjunctive clauses. Building English vocabulary through Latin roots continues to be emphasized.

Latin II: Honors Grades 9-12

1 credit; year course

(Prerequisite: Latin I and Departmental permission)

As the Cambridge Latin Course readings grow more complex, the plot focuses on Quintus' adventures in the Roman provinces of Britain and Egypt. Building on the basics of Latin I, students further develop their knowledge of grammar and sentence structure, including relative clauses, participles, and subjunctive clauses. Building English vocabulary through Latin roots continues to be emphasized. *Latin II-Honors moves at an accelerated pace and has heavy demands in terms of learning forms and vocabulary.*

Latin III Grades 9-12

1 credit; year course

(Prerequisite: Latin II/II-Honors)

The action of the Cambridge Latin Course plot moves to the city of Rome where students read about the highs and lows of Roman imperial life. This course completes the study of Latin grammar, including more complex and idiosyncratic grammatical structures. By the end of the year, students are ready for a taste of original Latin literature (Martial, Ovid, Catullus, Vergil). Building English vocabulary through Latin roots continues to be stressed.

Latin III: Honors Grades 9-12

1 credit; year course

(Prerequisite: Latin II-Honors)

The action of the Cambridge Latin Course plot moves to the city of Rome, and in this context students read about the highs and lows of Roman imperial life. This course completes the study of Latin grammar, including the more complex and idiosyncratic grammatical structures. During second semester, the focus is original Latin literature to prepare students for advanced work in Latin. Authors include Martial, Ovid, Catullus, and Vergil. Building English vocabulary through Latin roots continues to be stressed. *Latin III-Honors moves at an accelerated pace and has heavy demands in terms of learning forms and vocabulary.*

AP Latin Grades 9-12

1 credit; year course

(Prerequisite: Latin III-Honors and Departmental permission)

Qualified students pursue the study of both Vergil's *Aeneid* and Caesar's *De Bello Gallico* preparing for the College Board Advanced Placement exam. This course provides an opportunity to enjoy in Latin the adventure, drama and romance of Vergil's great epic as well as to explore the crisp prose and strategic leadership of Julius Caesar. Through this experience students develop college-level facility in translation, literary interpretation, and critical analysis. **GC**

Latin Literature Tales of Love on the Rocks*

½ credit; semester course

(Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.)

This literature course is for students who have mastered the study of advanced Latin grammar. Readings will include poems of Catullus, excerpts from Cicero's *Pro Caelio*, scenes from Ovid's *Metamorphoses* and Vergil's *Aeneid* (a preview of the poetry in the AP course). Through the careful reading of the Latin texts, students will develop and hone facility in translation, literary and historical interpretation, and critical analysis. **GC**

**Cross- listed in History*

Latin Literature: Enemies of Rome*

½ credit; semester course

(Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.)

This literature course is for students who have mastered the study of advanced Latin grammar. Readings will focus on hostile reactions to Roman power and cultural influence as it dominated the Mediterranean region with a growing empire. Selections will include excerpts from Caesar's *De Bello Gallico* (a preview of the prose in the AP course), Cicero's *In Catilinam*, Sallust's *Bellum Catilinae*, Livy's *Ab Urbe Condita*, Tacitus's *Annales*, and poems of Catullus and Horace. Students will develop and hone facility in translation, literary and historical interpretation, and critical analysis. [GC](#)

**Cross- listed in History*

Latin Literature: Death of the Roman Republic: Power, Politics, and Public Disorder*

(Not offered 2023-2024, offered in alternate years)

½ credit; semester course

(Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.)

This literature course is for students who have mastered the study of advanced Latin grammar. Selections will include excerpts from Cicero's speech *In Catilinam*, Sallust's *Bellum Catilinae*, and Caesar's *Bellum Civile*. Some secondary source material will be read in translation. Through the careful reading of Latin texts, students will develop facility in translation, literary and historical interpretation, and critical analysis. [GC](#)

**Cross- listed in History.*

Latin Literature: Laugh Like a Roman: Comedy, Satire, and Personal Insults*

(Not offered 2023-2024, offered in alternate years)

½ credit; semester course

(Prerequisite: Latin III or III-Honors; this course is offered as a pre- or post-AP option.)

This literature course is for students who have mastered the study of advanced Latin grammar. Selections will include excerpts from playwrights Plautus and Terence, satirists Petronius and Juvenal, and masters of invective Catullus and Martial. Some secondary source material will be read in translation. Through the careful reading of Latin texts, students will develop facility in translation, literary and historical interpretation, and critical analysis. [GC](#)

**Cross- listed in History*

Independent Study in Ancient Greek

1 credit; year course

(Prerequisite: advanced level Latin. Requires application and permission. Offered based on enrollment.)

A course in the basics of ancient Greek for qualified advanced level Latin students.

Spanish

Spanish I Grades 9-12

1 credit; year course

This course introduces the fundamental elements of the Spanish language within a cultural context. Students acquire basic listening, speaking, reading, and writing skills while exploring the daily life of various Spanish-speaking communities around the world. By the end of the year, they can use basic vocabulary and grammar to talk, read, and write about their family, food, school, daily routine, and major Hispanic customs.

Spanish II Grades 9-12

1 credit; year course

(Prerequisite: Spanish I)

This course reviews and builds on the grammar, vocabulary, and cultural competency taught in Spanish I to enhance conversational, listening, reading, and writing skills. Audio and video programs will be used to bring Hispanic culture into the classroom and will help make the study of Spanish a complete cultural and linguistic experience.

Spanish II: Honors Grades 9-12

1 credit; year course

(Prerequisite: Spanish I and Departmental permission)

Spanish II Honors is designed to consolidate the language skills (listening, speaking, reading, and writing) that students have acquired in Spanish I, as well as to introduce more complex grammatical structures and broader vocabulary. Students develop the ability to apply their language skills toward interpretive, presentational, and interpersonal communication. Audio and video programs will be used to bring Hispanic culture into the classroom and will help make the study of Spanish a complete cultural and linguistic experience.

Spanish III Grades 9-12

1 credit; year course

(Prerequisite: Spanish II)

This intermediate course is designed to consolidate the skills (listening, speaking, reading, and writing) that students acquired in Spanish II, as well as to introduce more complex grammatical structures and broader vocabulary. Students will build their cultural competency by exploring the societies and cultures of the Spanish-speaking world through a variety of texts and visual aids. They will also develop the ability to apply their language skills through interpretive, presentational, and interpersonal practice.

Spanish III: Honors Grades 9-12

1 credit; year course

(Prerequisite: Spanish II Honors and Departmental permission)

This intermediate course is designed for students who are on track to take the AP exam. Students will expand their speaking, listening, reading, and writing skills through an accelerated study of vocabulary and grammar, numerous informational and short literary texts, and various audiovisual materials, all allowing for an increased cultural awareness. They will strengthen their oral fluency by engaging in spontaneous conversations on a daily basis and will write short compositions.

Advanced Spanish: Latin American Culture Grades 9-12

1 credit; year course

(Prerequisite: Spanish III)

The goal of this course is to explore the cultural traditions of Latin American countries. Classroom experiences will include skits, short conversations, listening activities, songs, interactive games, and cultural videos for exposure, reinforcement, and recall. Students will create artifacts that represent the importance of each country's global significance. This course will also emphasize pronunciation of content-specific vocabulary related to each unit of study and help the students fine-tune the accuracy of their oral communication through conversations and role-play. [GC](#)

Spanish IV: Honors Grades 9-12

1 credit; year course

(Prerequisite: Spanish III Honors and Departmental permission)

The Spanish IV Honors course is intended for students who wish to develop proficiency and integrate their language skills using authentic materials. Its primary goal is to strengthen the students' language skills and to develop their cultural competency. Students demonstrate their level of Spanish proficiency

across three communicative modes: interpersonal, interpretive, and presentational. The course is designed for students who want to continue with the AP Language and Culture Course the following year. **GC**

Advanced Spanish: A Global Perspective Grades 9-12

1 credit; year course

(Prerequisite: Advanced Spanish: Latin American Culture or Spanish IV Honors)

This course is designed for students who have successfully completed the level IV Spanish course and who are passionate about exploring the different cultures in the Hispanic world. Two main topics will be covered throughout the school year. The first topic is the influence of various religions in the Hispanic culture, including music, architecture, literature and traditions, and the second topic is the role of women in the Hispanic society and how this role has evolved over time. The class will be taught entirely in Spanish. Resources include online print, audio and audiovisual materials. **GC**

AP Spanish Language and Culture Grades 9-12

1 credit; year course

(Prerequisite: Spanish IV Honors and Departmental permission)

The AP Spanish Language and Culture course is intended for students who already have extensive knowledge of the language and culture of Spanish-speaking communities and have attained a reasonable proficiency in listening comprehension, speaking, reading and writing. Students develop a strong command of the Spanish language by integrating the three modes of communication: interpersonal, interpretive, and presentational. The course focuses on the integration of authentic resources with the goal of providing a rich, diverse learning experience. Resources include online print, audio and audiovisual materials, literature, essays, and articles from magazines and newspapers. The course is divided into thematic units and guided by essential questions. **GC**

AP Spanish Literature and Culture* Grades 9-12

1 credit; year course

*Offered through One Schoolhouse/Online School for Girls 2021-2022

(Prerequisite: AP Spanish Language and Culture; by Departmental permission) **GC**

See page 56.

Chinese

Chinese II and above offered through One Schoolhouse. **GC**

Non-Credit Requirements:

Decision Making/Transitions

The goal of the Decision Making curriculum is to teach decision making skills and to provide current information on health-related topics. Classes are lecture and discussion-based and are designed to meet the needs of the students as their moral, intellectual, and social capabilities develop during their tenure in the Upper School.

Decision Making I Grade 9

non-credit; year course

This course encourages each student to examine her own value system as we discuss health topics, social and emotional issues, and ultimately, responsible decision making in everyday life. The class functions as a "group" in which students explore their values as they discuss varying topics. Each girl is encouraged to express her opinion respectfully while recognizing the differences that exist in family, ethnic, racial and cultural experiences within the class. We use films, websites, speakers and handouts to explore topics and spark discussions.

Career Explorations/Test Prep Grade 10

non-credit; semester course

During the second half of the year, the sophomore class engages in SAT/ACT Test Prep and Career Explorations. The Test Prep mini-course and our Career Explorations curriculum consist of six sessions taught during X-Block. The Test Prep course is delivered by Capital Educators, a private test prep company based in Rockville, MD. Career Explorations is team-taught by the college counselors and other administrative leaders in the Upper School. Career exposure and research, resumé writing and basic interviewing skills are covered in Career Explorations.

Decision Making II Grade 11

non-credit; year course

This course is designed to provide students with information involving personal values and college search strategies that will help them in making decisions about their immediate and future goals. The college search and application process is taught in this class. Camp College, a three-session college application workshop, is offered in May. Students will create a Common Application account, learn how to approach and draft supplemental essays, and have their personal essay reviewed by college admissions professionals.

Transitions Grade 12

non-credit; year course

This course helps to facilitate the transition from high school to life beyond. The first half of the year focuses on the college admission and application process while the later part of the year teaches students about personal, social, and financial skills that will guide them in the future.

Public Speaking

Dialogue & Debate Grade 9

non-credit; semester course

(Required of all ninth graders)

This required 9th grade course focuses on two foundational skills: speaking and listening. The “Dialogue” portion of the course emphasizes the skills needed to engage in constructive conversations designed to build understanding and connection across differences in beliefs, perspectives, and identities. Students will learn how to express themselves and their worldviews---as well as listen to those of others--both authentically and respectfully, in ways that further self-awareness and empathy and support the process of identifying and resolving conflict.

The “Debate” portion of this course emphasizes the art of public speaking, and exposes students to the skills required both to craft and to present a speech. Students will learn how to choose language tailored to audience, purpose, and context, with attention to tone and the fundamentals of argumentation. This course will develop students’ oral and performance expression skills through the planning and practice of both extemporaneous and persuasive speaking and build proficiency in skills such as collaboration, reflection, and self-regulation.

This course is part of the broader ninth grade curricular focus on interpersonal skill development, metacognition, and communication. To the extent possible, Dialogue & Debate will build on the exploration of facets of human civilization and global citizenship covered in World History I so that students have an additional opportunity to foster their own sense of imagination and empathy.

Student Support

Academic Resources Course (ARC) Grade 9

non-credit; year course

This course, which meets once per cycle, offers academic support to students who are new to the Upper School and have been identified as needing support. Basic “survival skills” will be taught, including organization, time management, reading comprehension, note-taking, test-taking strategies, and exam preparation. This interdisciplinary approach to the school curriculum will reinforce what is happening in the classroom, such as identifying the main ideas in a reading for history, connecting and visualizing concepts in biology, or memorizing vocabulary and grammar in a foreign language.

ADDITIONAL ACADEMIC OFFERINGS:

The Advanced Placement Program

What is the Advanced Placement Program?

The Advanced Placement Program (AP®) enables students to pursue college-level studies while still in high school through enrollment in AP courses. The program is administered by the College Board, which determines the curricular goals and course content for all AP courses. The College Board approves schools that wish to offer AP courses and conducts regular “audits” at schools to assure that AP courses meet requirements. AP courses are rigorous, fast-paced, and require students to master content and skills thoroughly and independently. Based on their performance on formal AP Exams administered in May by the College Board, students may earn college credit, advanced placement in college, or both. Each college has its own policy about AP courses and scores.

Who should take AP courses?

Since AP courses are college-level courses offered in high school, they are appropriate for students ready to tackle college-level work and who meet certain criteria. At Garrison Forest School, specific academic eligibility standards have been established for each AP course offered by the School in order to ensure that students in AP courses have the academic preparation necessary to participate with success. In addition, other considerations are weighed by the School in determining placement in AP courses.

Students who meet the academic requirements for placement in an AP course should also:

- be passionate about the subject matter and highly motivated to meet the demands of the course;
- possess excellent academic and study skills, the capacity to work independently, and an exceptional work ethic;
- be highly capable abstract, critical, and independent thinkers;
- be able to balance the demands of AP coursework with other academic and non-academic commitments and goals.

Because of the demands of AP coursework, students are counseled to consider these courses carefully and to balance their other course selections accordingly. Our most rigorous curriculum includes 2 AP courses in the junior year and 3 AP courses in the senior year. This level of rigor is communicated to colleges as our most challenging. Exceptions to these limits are considered only by formal written request on an individual basis.

The AP Enrollment Process at Garrison Forest School

- Early in their time in the Upper School, students work with their advisors to develop their year-by-year course plan leading to graduation. Students are encouraged to discuss their interest in AP coursework with their advisors.
- As they move through their sophomore year, students interested in specific subject areas in which AP courses are offered should begin to talk more specifically with their advisors and teachers in those subject areas about their interest.
- Placement in an AP course is granted through departmental permission. Departments meet prior to course registration to determine appropriate placements for students for the next academic year. In most instances, students recommended for AP courses are identified at this time. In some

instances, the Department may elect to monitor a student's progress in the 2nd semester before making an AP placement recommendation.

- Departments consider a range of factors in determining AP placement, including academic performance in the subject and in other relevant disciplines, feedback from teachers, the student's intellectual and personal preparedness for college-level work, the student's commitment and interest in AP-level study, and the student's ability to manage the workload.

Expectations regarding AP Course Study

By submitting the completed and signed course selection forms, students admitted to an AP course, along with their parents, indicate their understanding of the AP course expectations before enrollment in the course is finalized. Students and parents must be prepared for:

- Required summer work for the AP course;
- Required assignments and study over breaks;
- Required and recommended special activities, such as weekend field trips, related to the AP course;
- Required high level of independent learning and self-management;
- A course experience that mimics college-level study in content, rigor, pacing, and assessment.

AP Course Costs

Taking the College Board's AP® course exam in May is required of all students enrolled in AP courses, and parents will be billed for the College Board's exam fee (approx. \$97) for each AP course for which their daughter is registered.

Garrison Forest School AP Guidelines

AP Course by Dept	Grade(s)	Course Prerequisites	Required Grades for <i>consideration</i>
English			
<i>AP English Literature</i>	12	English III	B+ or higher in English III. B+ or higher English III essay average.
History			
<i>AP U.S. History</i>	11	World History II or World History II Honors	A or higher in World History II or B+ or higher in World History II Honors
<i>AP Psychology</i>	12	US History or AP U.S. History	A- in U.S. History or B+ or higher in AP U.S. History
<i>AP Macroeconomics (Online course)</i>	11 or 12	Algebra II / Trig or higher Math	
<i>AP Microeconomics (Online course)</i>	11 or 12	Algebra II / Trig or higher Math	
World Languages			
<i>AP French Language and Culture</i>	11 or 12	French IV Honors	B or higher in French IV Honors
<i>AP Latin</i>	11 or 12	Latin III Honors	B+ or higher in Latin III (H) or Latin IV (H).
<i>AP Spanish Language and Culture</i>	11 or 12	Spanish IV Honors	B or higher in Spanish IV (H)
Mathematics			
<i>AP Calculus AB</i>	11 or 12	Precalculus	A- or higher test average in Precalculus
<i>AP Calculus BC</i>	11 or 12	Honors Precalculus	B+ or higher test average in Honors Precalculus
<i>AP Statistics</i>	11 or 12	Honors Algebra II/Trig; or departmental permission.Precalculus	B+ or higher test average in Honors Algebra II/Trig; or departmental permission.
Science			
<i>AP Biology</i>	11 or 12	Biology, Chemistry and Physics (may take Physics concurrently)	B+ or higher in all previous science classes A- or higher in Biology; B+ or higher in Chemistry or B or higher in Honors Chemistry
<i>AP Chemistry</i>	11 or 12	Chemistry, Honors Precalculus (concurrently or in 11th), and Calculus or higher in 12th	B+ or higher in Precalculus; B+ or higher in all previous science classes; A- or higher in Honors Chemistry; B+ or higher test average in Honors Chemistry;
<i>AP Environmental Science</i>	11 or 12, 10 with dept permission	Biology, Chemistry and Algebra II	B+ or higher in all previous science classes; B+ or higher in English III; B+ or higher test average in Algebra II.
<i>AP Computer Science A (Online course)</i>	11 or 12, 10 with dept approval	Algebra II Honors prior or concurrently; Intro. to Computer Programming, Computer Programming II, or previous programming experience	B+ or higher in Algebra II and Precalculus; B+ or higher test average in Honors Chemistry; B+ or higher test average in Physics, if already taken; Previous programming experience
<i>AP Computer Science Principles</i>	11 or 12, 10 with dept permission	Geometry	B or higher in Geometry or Geo & Trig Honors or B grade or higher in the most recent Math course above the level of Geometry with Algebraic Thinking

The GFS Gateway Scholars Program (GSP)

For the student who identifies an interest in delving deeply into a particular field (including Global Citizenship **GC**, STEM **STEM** and Visual Arts and Design Thinking **VA&D**), participation in the Gateway Scholars program will provide unique opportunities to further tailor her Upper School experience both within and beyond the classroom. Students with a special interest in one of three focus areas will work with program advisors and faculty to craft a distinct curricular and co-curricular path. Each Gateway track will create an immersive program designed to challenge them, enrich their experience and deepen their understanding. Students will connect with adult mentors through GFS Connect and off-campus partnerships and opportunities, and they will make use of the College Counseling process to explore and refine interests and bring their learning experience beyond the classroom and into the wider community. Satisfactory completion of the full requirements culminates in Certification as a GFS Gateway Scholar in the student's chosen areas of focus.

Each Gateway Scholar track consists of 3 components:

- in-depth coursework;
- sustained experiential learning and engagement beyond the classroom;
- creation and presentation of a senior portfolio meant to encapsulate their learning and experiences throughout the program.

Global Citizenship Gateway GC

GC In-Depth Coursework:

- Global Scholars should complete up to or beyond Level 4 and/or demonstrate bilingualism in one or more world languages.
- Honors Seminar: Sustainable Development Studies
- 3 semesters of additional relevant coursework (listed below) that build skills in global citizenship

Art course offerings:

Art History

History & Social Sciences course offerings:

Contemporary World Issues

Economics

Honors Seminar: Ethics

Honors Seminar: Genocide: Confronting Evil and Stopping It

Honors Seminar: African American Studies

Honors Seminar: Philosophy and Practice in World Religions

Honors Seminar: Sustainable Development Studies* (*one semester is required; student may elect to do both semesters*)

International Perspectives on Women, Gender, and Health

Modern Latin America

Mathematics course offerings:

AP Statistics*

Statistics

Science course offerings:

AP Environmental Science*

Biochemistry, Microbiology and Public Health Research (Honors) - Small World Initiative

Engineering Design

World Language: all courses beyond the required Level IV, or in an additional language.

GC Experiential and Co-Curricular opportunities:

In addition, students explore substantive co-curricular opportunities related to global scholarship that complement their classroom experience such as:

- Model U.N.
- Service League
- Student Diversity Leadership Council
- Student affinity groups
- Language and culture clubs, organizations, and activities
- Kenya Connect
- Spectrum
- Culture and Identity clubs
- World Language clubs

Science, Technology, Engineering, Mathematics Gateway **STEM**

STEM In-Depth Coursework:

- Four years of math and science
- At least one computer science course (semester or full-year) or an equivalent
- Participation in WISE or an alternative research experience approved by GSP faculty.
- At least one year-long, upper-level STEM course (listed below), beyond the student's recommended math sequence, in junior or senior year:
 - AP Biology*
 - AP Chemistry*
 - AP Computer Science Principles
 - AP Computer Science A*
 - AP Environmental Science*
 - AP Microeconomics/Macroeconomics*
 - AP Psychology*
 - AP Statistics* or Statistics
 - BCMB: Biochemistry, Microbiology, and Public Health Research (H)*
 - Biotechnology/Forensic Science
 - Ecology, Evolutionary Biology, and Behavior
 - Engineering Design
- At least two **STEM** courses from among these fields: computer science, engineering, public health, social science, or statistics (*see below for options*)

Computer Science and Engineering

- Engineering Design
- Introduction to Computer Programming
- Computer Programming II
- AP Computer Science Principles
- AP Computer Science A

Statistics

- Statistics
- AP Statistics

Public Health and Social Sciences

- International Perspectives on Women, Gender, and Health
- Honors Seminar in Sustainable Development Studies
- BCMB
- Economics
- Psychological Treatments and Disorders
- Developmental Psychology
- AP Psychology

- One Arts course with **STEM** GSP designation:

- 3D Design
- Color Theory
- Jewelry: Wearable Art
- Digital Photography
- Darkroom Photography
- Technical Theater and Production
- Woodworking: Function and Design

STEM Experiential and Co-Curricular opportunities:

In addition, students explore and invest in substantive STEM-related opportunities such as:

- The University of Maryland School of Medicine Public Health Fellows program
- The ACE (Architecture, Construction, Engineering) Mentor Program
- The GFS chapter of GAINS (Girls Advancing in STEM), of SWENext (Society of Women Engineering high school group, and of GirlUp (the United Nations organization dedicated to advancement of girls)
- GREEN Club and other environmental/sustainability activities
- Robotics Club
- Makerspaces
- Annual awareness months centered on Computer Science, Engineering, and Public Health education
- Competitions, including North American Computational Linguistics Olympiad and USA Biology Olympiad
- Mathematics and Science Department-sponsored special activities and competitions
- Participation in GFS tutoring programs, with a focus on helping peers with STEM subjects
- In-school field trips and weekend Activity Program opportunities with a STEM focus

Visual Arts and Design Gateway **VA&D**

VA&D In-Depth Coursework:

- Progress through one of the foundational visual arts course sequences
 - Graphic Design - Drawing - Painting
 - 3D Design - Woodworking AND Jewelry
 - Graphic Design or 3D Design - Digital Photography - Darkroom Photography
- Two semesters of Honors Art Portfolio
- At least one semester art class outside of the particular arts track, may include

Art:

- 2D Design
- 3D Design
- Color Theory
- Darkroom Photography
- Digital Photography
- Drawing
- Honors Art Portfolio
- Metalworking
- Painting
- Woodworking

Computer Science & Technology:

- Engineering Design
- Introduction to Computer Programming: Game Design
- Yearbook I

History & Social Sciences:

- Art History

VA&D Experiential and Co-curricular opportunities:

Students pursuing the Gateway Scholar Certificate in Visual Art and Design will explore and share their interest in art beyond the classroom by:

- Submitting artwork to at least two local, regional, or national art shows and competitions
- Participating in at least one field trip offered through classes or weekend activities
- Significant involvement in more than one co-curricular art activities such as:
 - Callisto art submission
 - Service League projects: Art with a Heart, Empty Bowls, etc.
 - Art-related Jenkins Fellowship
 - Creating a campus art installation or other proposed community art display

Women in Science and Engineering Program (WISE)

The Women in Science and Engineering (WISE) program is an experiential learning opportunity in which students engage in hands-on research in a lab or research site at Johns Hopkins University. Students are paired with a JHU faculty host and supervised by a member of the research team. This program is a credit-bearing, semester-long commitment open to 11th or 12th grade students in either fall or spring.

The WISE program seeks strong students who are independent learners, generally capable of AP-level work. In addition, participants need maturity, resilience, intellectual curiosity, emotional readiness, and solid interpersonal skills. In order to qualify for the WISE program, students must complete prerequisite courses, submit an application, and meet the following criteria:

- Have earned grades of B or higher in all courses within the semester prior to participation
- Have demonstrated the academic habits necessary for success in the program
- Have maintained an overall curricular and co-curricular program that is compatible with participation and approved by the GFS WISE faculty
- Have received approval for enrollment from the student's advisor and WISE faculty, based upon academic strength, availability, and capacity to succeed in the program

While in WISE, students fulfill academic assignments, conduct mentor interviews, and prepare and deliver a final presentation on their work at JHU to their mentors and fellow WISE students, along with participating in an annual poster session for the Garrison Forest School community. Students also maintain an electronic portfolio which they can retain after graduation from GFS.

WISE emphasizes three key learning areas through becoming a contributing member of a research team:

1. Application of the scientific method in real-world STEM research (or comparable system of inquiry used in other fields)
2. Exploration of a specific area of inquiry and of disciplines in a major research university
3. Development of some of the skills and habits of mind required in university-level research

Placements depend upon JHU's capacity to host and vary by students' interests and availability. Over 16 program years, students have been placed with faculty in JHU's Whiting School of Engineering, Krieger School of Arts and Sciences, Bloomberg School of Public Health, and the School of Medicine. Customized placements in other JHU areas may also be available.

Although the requirement for WISE is one semester, a student may continue, without credit, beyond this time period based on her interest and her mentor's availability. Students with school-year conflicts such as multi-season athletic team participation, may be considered for a non-credit, condensed summer WISE option, again dependent upon JHU's capacity to accept WISE students in the summer.

There is an additional tuition charge for WISE, adjusted for families receiving financial aid. This charge covers expenses at JHU, transportation provided by GFS to and from Johns Hopkins, as well as support and enrichment activities at GFS. WISE does not require residency on campus, although some students elect to live at GFS during WISE. The Office of Residential Life assists families interested in this option.

Additional information on the program is available [on the GFS website](#) and from the Director of the James Center/Dean of Special Programs, Andrea Perry.

Online Courses

Online providers, such as One Schoolhouse/Online School for Girls (of which Garrison Forest School is an affiliate member), are an increasingly prevalent form of education. GFS views use of online courses as an important enhancement to the learning experience of its students in certain situations. Circumstances in which online coursework may be pursued in addition to, or instead of, a classroom course, include:

- To address scheduling needs created by enrollment in a special program, such as WISE;
- To address sequence needs, when a student has moved beyond the highest level course available at GFS;
- To address a compelling interest and demonstrated need in taking a course not offered by GFS, as in approved independent study.

In the Upper School, students may request approval for enrollment in an online course or be recommended for one by their advisor. Requests will be reviewed by the Upper School Dean of Academic Development along with the Head of Upper School, College Counselors, relevant Department Chairs and others to assess whether to approve it. Considerations include:

- The educational needs of the student;
- The availability of classroom course options;
- The availability of appropriate learning support for the student;
- The student's readiness for an independent learning experience;
- The course's comparability in content and rigor to GFS courses.



In partnership with [One Schoolhouse/Online School for Girls](#), Garrison Forest School offers the approved courses listed below. All OSG course enrollments must be approved by the Dean of Academic Development and relevant Department Chair.

Advanced Computer Science: Coding with Python Grades 11, 12 ½ credit; semester course
Prerequisites: Successful completion of Algebra II and AP Computer Science Principles or permission from the administration; experience with Python or non-block based coding program required.

Computer Science is behind many of the current innovations such as quantum computing, block chain, and predictive analytics. This course moves past the basics of procedural programming and explores how we can use the Python built-in data structures such as lists, sets, dictionaries, and tuples to program increasingly complex algorithms. Students investigate object-oriented programming using objects and classes with the goal of implementing real world applications of inheritance and polymorphisms. They also explore a variety of libraries that Python has to offer, including SciPy, Matplotlib, Keras, and TensorFlow. This course is designed for more experienced programmers who aspire to expand and enhance their coding and problem-solving abilities. This is one of our most advanced courses in our CS strand and is specifically designed as an alternative to AP or as a post-AP CS course. **STEM**

AP Computer Science A Grades 10, 11, 12

1 credit, year course

Prerequisite: Successful completion of a One Schoolhouse computer programming course or permission from the OS administration.

The AP® Computer Science A course introduces the key concepts of programming in Java. The analytical, critical-thinking, and problem-solving skills that students will develop in this course transfer to programming in other languages as well. This course is designed with the idea that programming should be fun, engaging, and intuitive. Students will learn to apply the main principles of object-oriented software design and programming using classes and objects, constructors, methods, instance and static variables, inheritance, class hierarchies, and polymorphism. Students work creatively and collaboratively with their classmates to discuss ethical and social issues relating to the use of technology, and develop a solid foundation from which to launch into a wide range of computer science areas. This course prepares students for the AP® Computer Science A Exam in May. **STEM**

AP Macroeconomics Grades 11, 12

1 credit, year course

Prerequisite: Successful completion of Algebra II / Trig or higher math

AP® Macroeconomics introduces students to major economic issues such as basic market analysis, the causes of the cycle of economic growth and recession, the problems of inflation and unemployment, the causes and consequences of federal budget deficits, and the causes and effects of international trade imbalances and currency fluctuations. Students analyze the impact of fiscal and monetary policies as well as the debates surrounding the implementation of each. This course involves extensive reading, problem-solving exercises, online discussions, and research and writing about contemporary macroeconomic issues. Multiple modalities are employed for content presentation so as to encourage personalization; assessment evaluates each student's ability to utilize skill sets related to economic decision making. Strong reading, algebra, and analytical skills are necessary for success, as is strong motivation. AP® Macroeconomics develops informed, thoughtful, and globally-minded students, and thoroughly prepares students to take the AP® exam in the spring. AP® Macroeconomics is recommended for juniors and seniors. **STEM**

AP Microeconomics Grades 11, 12

1 credit, year course

Prerequisite: Successful completion of Algebra II / Trig or higher math

AP® Microeconomics gives students an understanding of how limited resources and unlimited wants result in the need to make choices, both individually and collectively. Students will learn why private markets and the price mechanism lead to an efficient allocation of resources in a market-based economy. Market structure, market failure, natural resource markets, and the role of government are included. Students analyze societal issues through the lens of economic reasoning, develop critical thinking skills through the understanding and analysis of fundamental economic concepts, and increase their ability to analyze information and draw conclusions from a wide variety of real-world situations. Students complete collaborative assignments, group discussions, and assessments that require them to apply what they have learned to hypothetical situations. The curriculum is developed to prepare students for the AP® Microeconomics Exam in May. The course is recommended for 11th and 12th graders with strong mathematical reasoning skills and an interest in economics, finance, business, or government policy.

STEM

AP Music Theory

1 credit, year course

***Prerequisite:** Ability to read at least one clef of music and proficiency in an instrument or voice*

AP® Music Theory is an intensive, fast-paced course which aims to increase students' overall musicianship and prepare them for the AP® Music Theory Exam. Students will begin to look at music on a deeper level and relate theory to their personal instrument, experiencing growth in performance and technicality. There are both aural and analytical components to the class: students will learn to sight sing, analyze a variety of genres, and strengthen their ear. Students will have the chance to compose and perform original compositions as well as explore different fields of the music world. AP® Music Theory starts with the basics (clef reading, scales, and chords) and continues all the way up to a college-level theory course (harmonic and form analysis, modulation). This is a crucial course for students looking to pursue music professionally or for anyone who wants to pursue their passion in music. AP® Music Theory students often pass out of entry-level theory classes in college and use this course to help them on theory entrance exams.

Independent Study

A qualified student may pursue an independent study course with a GFS teacher to engage in an enriched, in-depth course in a particular discipline, either because she has already mastered the basic material in another course and there is no higher level course to take, or because unusual talent and ability warrant additional challenges not provided by the School's course offerings. The following requirements govern independent study:

- The decision to request an independent study course must be a joint one between the student and the teacher with whom the student wishes to study, in consultation with her advisor. The student and her independent study teacher must prepare a comprehensive written study plan and submit it to the department head involved, to the Head of the Upper School and to the Dean of Academic Development for approval during the yearly course selection process.
- The Head of the Upper School and the Dean of Academic Development will evaluate the study plan and determine whether to allow the independent study course for the student.
- In addition to regular tutorials, readings and reading notes, the student shall undertake a major project or research paper in her area of concentration, which will be presented to a chosen audience.
- The standard add/drop requirements apply to the independent study course.