



THE Vanguard School

# High School Course Description Guide 2022 – 2023

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## *Educational Philosophy*

**Mission: The mission of The Vanguard School is to help guide students in development of their character and academic potential through academically rigorous, content-rich educational programs.**

**Vision: We have created a public high school with a classically based, college-preparatory curriculum designed to develop academic excellence, virtue, and leadership. Students will benefit by being fully equipped to gain admittance to and enjoy success in the college of their choice.**

The Vanguard School uses a classical, liberal arts curriculum based on the Hillsdale Academy Model and is designed to give all students the solid academic grounding required for success as an adult. Our core curriculum ensures all students meet or exceed the Colorado Commission on Higher Education admission standards to Colorado Colleges and Universities for 2010, the year of our first graduating class. We chose the Hillsdale Academy curriculum because we believe, as they do as stated in their mission statement, a school should:

- develop within its students the intellectual and personal habits and skills upon which responsible, independent, and productive lives are built, in the firm belief that such lives are the basis of a free and just society;
- strive to offer enrichment and to develop character through both curricular and extracurricular offerings, to nurture the child's humanity—spirit, mind, and body—with a constant view to the potential adult;
- utilize a time-honored liberal arts curriculum and pedagogy directing student achievement toward mastery of the basics, exploration of the arts and sciences and understanding of the foundational tenets of our Judeo-Christian and Greco-Roman heritage.

The curriculum by purpose and design is a survey of the best intellectual and cultural traditions of the West as they have been developed and refined over countless generations.

Students are required to take a college preparatory course of study consisting of at least four years of English, four years of math, four years of history, three years of science, three years of the same world language, and at least one year of Latin. The English classes are coordinated with history courses to provide a synergy between these two subjects. Latin is used to create a classical grounding and to provide additional support for literary skills. In support of this rigorous academic load, students have study hall time to connect with teachers to get extra help. Additionally, students are assigned mentors to track their progress and assist in planning for the future.

## Graduation Requirements

To qualify for graduation, a student must meet and complete the minimum number of semester credits in the academic areas outlined below. Elective credits may be earned in any area once the specific graduation requirements are fulfilled. **One credit is earned each semester upon successful course completion.**

Discipline	Required Semester Credits
English	8
History	8
Mathematics	8
Science	6
Language	8 (Latin I and 3 <i>additional</i> years of any language required)
Fine Arts	2
Academic Electives	8
<b>Minimum Total for Graduation</b>	<b>48</b>

Please note: Seniors must attend The Vanguard School full-time (5 credits) second semester senior year to receive a Vanguard diploma.

## Academic Policy Guidelines

### Grading System

A	Superior	90-100	I	Incomplete
B	Above Average	80-89	WP	Withdraw Pass
C	Average	70-79	WF	Withdraw Fail
D	Below Average	65-69	WD	Withdraw
F	No Credit	<65	NC	No Credit

### Grade Point Average

All courses receiving a letter grade are used in the computation of the grade point average (GPA). All AP (Advanced Placement) courses are calculated on a 5.0 scale:

A	5.0
B	4.0
C	3.0
D	2.0

All honors courses are calculated on a 4.5 scale:

A	4.5
B	3.5
C	2.5
D	1.5

### *Grade Placement*

The minimum student load is 5 classes each semester. We encourage students to take more than 5 classes each semester. To be promoted to the next class, the following criteria should be met:

**To Grade 10:** A student is promoted to tenth grade if they successfully complete 10 credits.

**To Grade 11:** A student is promoted to eleventh grade if they successfully complete 22 credits.

**To Grade 12:** A student is promoted to twelfth grade if they successfully complete 34 credits.

**NOTE:** These guidelines should be viewed as minimum. Usually, a student will have earned more credits than are needed for promotion. **It is the student's responsibility to ensure requirements for graduation are met.** The high school staff will make every effort to keep up-to-date records and to keep students and parents informed about the status of progress toward compiling the necessary course work for graduation requirements. **However, it is the student's responsibility to be acquainted with the necessary requirements to meet this goal. We do encourage all students to make sure they are on track to graduate and are enrolled in courses each year that will keep all their options open for career planning and education after high school.**



## *English Department*

### Classical Literature and Composition (English 9)

#### **2 credits**

#### **Purpose:**

This English class explores the foundations of Western Civilization, the great books upon which the rest of Western literature, as well as society, is built. While exploring these great works, students develop not only an appreciation for the texts, but also an ability to critically examine them. In order to examine the texts, students perform frequent writing assignments. When compared to the honors course, this course takes the literature at a slightly slower pace and begins grammar and writing instruction at a more basic level, endeavoring to lay the foundation for students to move up into an honors course next year.

#### **Textbook:**

In the spirit of The Vanguard School's commitment to the Greco-Roman and Judeo-Christian traditions, students survey the great classical works of antiquity. These include:

- *The Holy Bible*
- *The Iliad and The Odyssey* – Homer
- *Seven Against Thebes* – Aeschylus
- *The Trojan Women* – Euripides
- *Oedipus the King* – Sophocles
- *The Second Philippic* – Cicero
- *Julius Caesar* – William Shakespeare

The basic text in grammar is *Warriner's English Grammar and Composition* fourth course handbook. Vocabulary is studied in conjunction with literature as well as from Vocabulary Workshop (Level D).

#### **Classwork:**

Students will be instructed daily in grammar, vocabulary, and literature. Frequent reading quizzes are given on the literature, focusing on reading comprehension and critical thinking. In addition, students learn twenty spelling and vocabulary words regularly. Words are introduced in class, and quizzes are given at the end of a sequence of exercises. Writing labs occur regularly and include assignments in expository, creative, persuasive, and analytical writing, with an emphasis on foundational skills. Poetry is memorized and recited in class. Grammar drills and exercises also occur regularly. Finally, nearly every day, students will dive into the classics they read in the course, exploring the themes, literary devices, and, above all else, the sheer beauty that make these Great Works great. Literary works are often read in class, and lectures are given about their authors, time periods, and literary techniques.

## Honors Classical Literature and Composition (English 9)

### **2 Credits**

#### **Purpose:**

This English class explores the foundations of Western Civilization, the great books upon which the rest of Western literature, as well as society, is built. While exploring these great works, students develop not only an appreciation for the texts, but also an ability to critically examine them. In order to examine the texts, students perform frequent writing assignments.

#### **Textbook:**

In the spirit of The Vanguard School's commitment to the Greco-Roman and Judeo-Christian traditions, students survey the great classical works of antiquity. These include:

- *The Holy Bible*
- *The Iliad* and *The Odyssey* – Homer
- *The Trojan Women* – Euripides
- *Seven Against Thebes* – Aeschylus
- *The Aeneid* – Virgil
- *The Second Philippic* – Cicero
- *Julius Caesar* – William Shakespeare

The basic text in grammar is *Warriner's English Grammar and Composition* fourth course handbook. Vocabulary is studied in conjunction with literature as well as from *Vocabulary Workshop* (Level D).

#### **Classwork:**

Students will be instructed daily in grammar, vocabulary, and literature. Frequent reading quizzes are given on the literature. In addition, students learn twenty spelling and vocabulary words regularly. Words are introduced in class, and quizzes are given at the end of a sequence of exercises. Writing labs occur weekly and include assignments in expository, creative, persuasive, and analytical writing. Poetry is memorized and recited in class. Grammar drills and exercises also occur regularly. Finally, nearly every day, students will dive into the classics they read in the course, exploring the themes, literary devices, and, above all else, the sheer beauty that make these Great Works great. Literary works are often read in class, and lectures are given about their authors, time periods, and literary techniques.

#### **Homework:**

Assignments are given daily. These usually consist of grammar and vocabulary exercises, as well as a reading assignment. All homework must be completed in ink and turned in on time. Homework helps practice the concepts and skills learned in class in order to internalize the information and do well on larger assessments.

#### **Tests/Projects/Exams:**

There will be tests over each work of literature, major topic in grammar, and set of vocabulary

words. Students will memorize and recite several pieces throughout the year, including lines from Homer and Shakespeare, in addition to delivering a short speech. At least one major digital project each year is based on *The Odyssey* or *The Aeneid*. Also, students will write a lengthier thesis paper in the fourth quarter. Binder checks count as a test grade every quarter. A final exam is given at the end of each semester.

**Summer Reading:**

- *Genesis* (chapters 1-20) – *The Holy Bible*
- *Mythology* (chapters 1-3) – Edith Hamilton

European Literature and Composition (English 10)

**2 credits**

**Purpose:**

This English class encompasses literature, composition, grammar, spelling, vocabulary, and speech. The European literature chosen for the class roughly matches what the students are learning in history. By learning and practicing elements of all these subjects, students will gain a greater ability to think critically, read with greater understanding, and communicate effectively.

**Textbook:**

The literature program includes reading the following:

- *Everyman and Medieval Miracle Plays*
- *The Inferno* – Dante Alighieri
- *Hamlet* – William Shakespeare
- *A Tale of Two Cities* – Charles Dickens

The basic text in grammar is *Warriner's English Grammar and Composition* fifth course handbook. Vocabulary is studied in conjunction with literature as well as from Vocabulary Workshop (Level E).

**Classwork:**

Students will be instructed daily in grammar, vocabulary, and literature. Writing labs occur regularly and include assignments in expository, creative, persuasive, and analytical writing, with an emphasis on fundamentals. Literary works are often read in class, and lectures are given about their authors, time periods, and literary techniques. Grammar drills and exercises will focus on building a strong foundation of understanding in the basics. Quizzes occur regularly in grammar, literature, and vocabulary. All quizzes are announced except for reading quizzes, which cover the reading from the previous night.

**Homework:**

Assignments are given daily. These usually consist of grammar and vocabulary exercises, as well as a reading assignment. All homework must be completed in ink and turned in on time.

The homework helps the students practice the concepts and skills they have learned in class in order to internalize the information and do well on larger assessments.

**Tests/Projects/Exams:**

There will be tests over each work of literature, major topic in grammar, and set of vocabulary words. Students will memorize and recite several poems throughout the year for a test grade as well. There are a couple major essays throughout the year, one of which is often a research project. Binder checks count as a test grade every quarter. A final exam is given at the end of each semester.

**Summer Reading:**

*One Day in the Life of Ivan Denisovich* - Aleksandr Solzhenitsyn

Honors European Literature and Composition (English 10)

**2 Credits**

**Purpose:**

This English class encompasses literature, composition, grammar, spelling, vocabulary, and speech. The European literature chosen for the class roughly matches what the students are learning in history. By learning and practicing elements of all these subjects, students will gain a greater ability to think critically, read with greater understanding, and communicate effectively.

**Textbook:**

The literature program includes reading the following:

- *Everyman and Medieval Miracle Plays*
- *The Inferno* – Dante Alighieri
- *Hamlet* – William Shakespeare
- *A Tale of Two Cities* – Charles Dickens
- *Crime and Punishment* – Fyodor Dostoevsky

The basic text in grammar is *Warriner's English Grammar and Composition* fifth course handbook. Vocabulary is studied in conjunction with literature as well as from *Vocabulary Workshop* (Level E).

**Classwork:**

Students will be instructed daily in grammar, vocabulary, and literature. Frequent reading quizzes are given on the literature. In addition, students learn twenty spelling and vocabulary words regularly. Words are introduced in class, and quizzes are given at the end of a sequence of exercises. Writing labs occur weekly and include assignments in expository, creative, persuasive, and analytical writing. Literary works are often read in class, and lectures are given about their authors, time periods, and literary techniques. Poetry is memorized and recited both in class. Grammar drills and exercises also occur regularly. Quizzes are given regularly in

spelling, grammar, literature, and vocabulary. All quizzes are announced except for reading quizzes, which cover the reading from the previous night.

**Homework:**

Assignments are given daily. These usually consist of grammar and vocabulary exercises, as well as a reading assignment. All homework must be completed in ink and turned in on time. The homework helps the students practice the concepts and skills they have learned in class in order to internalize the information and do well on larger assessments.

**Tests/Projects/Exams:**

There will be tests over each work of literature, major topic in grammar, and set of vocabulary words. Students will memorize and recite several pieces throughout the year, including lines from Dante and Shakespeare. There are a couple major essays throughout the year, and there is one major project based on *The Inferno*. Binder checks count as a test grade every quarter. A final exam is given at the end of each semester.

**Summer Reading:**

*One Day in the Life of Ivan Denisovich* – Aleksandr Solzhenitsyn

[Honors American Literature and Composition \(English 11\)](#)

**2 Credits**

**Purpose:**

The junior English program includes literature, composition, spelling, grammar, vocabulary, and speech. This class focuses on American literature and includes texts by representative authors from the Colonial Period to the present day. Reading, speaking, and writing assignments vary in genre and style, all with a shared emphasis on college preparedness.

**Textbook:**

The literature program includes reading the following:

- *Adventures of Huckleberry Finn* – Mark Twain
- *Of Mice and Men* – John Steinbeck
- *The Great Gatsby* – F. Scott Fitzgerald
- *The Crucible* – Arthur Miller
- *A Farewell to Arms* – Ernest Hemingway
- Selections from *McMichael Concise Anthology of American Literature*

The basic text in grammar is *Warriner's English Grammar and Composition Complete Course*. Vocabulary is studied in conjunction with literature as well as from *Vocabulary Workshop* (Level F).

**Classwork:**

Students will be instructed daily in grammar, vocabulary, and literature. Frequent reading quizzes are given on the literature. In addition, students learn twenty spelling and vocabulary

words regularly. Words are introduced in class, and quizzes are given at the end of a sequence of exercises. Writing labs occur weekly and include assignments in expository, creative, persuasive, and analytical writing. Literary works are often read in class, and lectures are given about their authors, time periods, and literary techniques. We read plays, novels, short stories, essays, articles, letters, poetry, and historical documents. Poetry is memorized and recited in class. Grammar drills and exercises also occur regularly.

**Homework:**

Homework may include reading, writing, memorizing, studying, and practicing recitations. Students have daily grammar, vocabulary, and reading assignments. We usually have vocabulary and spelling quizzes on Friday. Occasionally, students will be asked to complete writing assignments at home.

**Tests/Projects/Exams:**

In the fall semester, students present a short speech in class. Additionally, they recite poetry in class quarterly. Tests occur at the completion of major grammar units and after finishing a literary period or major work. Binder checks count as a test grade every quarter. A final exam is given at the end of each semester.

**Summer Reading:**

*The Scarlet Letter* – Nathaniel Hawthorne

[AP English Language and Composition](#)

**2 Credits**

**Prerequisite:**

Completion of Honors European Literature and Composition (English 10) with a B or higher.

**Purpose:**

This specific course, in addition to meeting course guidelines established by the College Board, will focus on American Literature and includes texts by representative authors from the beginnings of Colonial Period up to the present day. Primary texts will be supplemented with work in grammar, vocabulary, writing, and speech. Not only will students become prepared for the AP test in May, but they will gain a greater historical and philosophical perspective by observing how trends in thought have changed. They will also master the art of analyzing literature and mining it for its beauty and meaning.

**Textbook:**

The literature program includes reading the following:

- *Adventures of Huckleberry Finn* – Mark Twain
- *Of Mice and Men* – John Steinbeck
- *The Great Gatsby* – F. Scott Fitzgerald
- *The Crucible* – Arthur Miller
- *A Farewell to Arms* – Ernest Hemingway

- Selections from *McMichael Concise Anthology of American Literature*

The basic text in grammar is *Warriner's English Grammar and Composition Complete Course*. Vocabulary is studied in conjunction with literature as well as from *Vocabulary Workshop* (Level G).

**Classwork:**

Writing labs occur regularly, focusing on a wide range of writing styles and prompts. Quizzes are given regularly in spelling, grammar, literature, and vocabulary. All quizzes are announced except for reading quizzes, which cover the reading from the previous night.

**Homework:**

Homework may include reading, writing, memorizing, studying, and practicing recitations. Students have daily grammar, vocabulary, and reading assignments. Vocabulary and spelling quizzes will usually occur on Friday. Frequently, students will be asked to complete writing assignments at home.

**Tests/Projects/Exams:**

Throughout the year, special emphasis is placed on composition skills needed for the AP Language exam, which includes several different types of essays. Additionally, students recite poetry in class. Tests occur at the completion of major grammar units and after finishing a literary period or major work. Students will also have periodic cumulative vocabulary tests.

**Summer Reading:**

*The Scarlet Letter* – Nathaniel Hawthorne

[Honors British Literature and Composition \(English 12\)](#)

**2 Credits**

**Purpose:**

The senior English program includes literature, composition, spelling, grammar, vocabulary, and speech. This class focuses on British literature and includes texts by representative authors from the beginnings of the language in Old and Middle English to the present day. Reading, speaking, and writing assignments vary in genre and style, all with a shared emphasis on college preparedness.

**Textbook:**

The literature program includes reading the following:

- *The Abolition of Man* – C.S. Lewis
- *Macbeth* – Shakespeare
- *The Tragical History of Dr. Faustus* – Christopher Marlowe
- *Paradise Lost* – John Milton
- *Heart of Darkness* – Joseph Conrad
- *The Importance of Being Earnest* – Oscar Wilde

- *Nineteen Eighty-four* – George Orwell
- *Rosencrantz and Guildenstern are Dead* – Tom Stoppard
- Selections from *The Longman Anthology of British Literature, 4<sup>th</sup> Edition*

The basic text in grammar is *The Elements of Style* by E B White and William Strunk. Vocabulary is studied in conjunction with literature as well as from *Vocabulary Workshop* (Level G).

**Classwork:**

Students will be instructed daily in grammar, vocabulary, and literature. Frequent reading quizzes are given on the literature. In addition, students learn twenty spelling words and twenty vocabulary words regularly. Words are introduced in class, and quizzes are given at the end of a sequence of exercises. Writing labs occur frequently and include assignments in expository, creative, persuasive, analytical, and letter writing, with special emphasis on practical writing in preparation for life beyond high school. Literary works are often read in class, and lectures are given about their authors, time periods, and literary techniques. The literature is generally more challenging than previous years and will require close study. Poetry is memorized and recited in class, and students will give multiple original speeches throughout the year. Grammar drills and exercises also occur regularly. Specific to senior year, these are based more on grammatical style and choice rather than concrete rules.

**Homework:**

Homework may include reading, writing, memorizing, studying, and practicing recitations. Students have daily grammar, vocabulary, and reading assignments. Vocabulary and spelling quizzes usually occur each Friday. Occasionally, students will be asked to complete writing assignments at home.

**Tests/Projects/Exams:**

In each semester, students present a short speech in class. Additionally, they recite poetry, usually from Chaucer, in the fall. Tests take place at the completion of major grammar units and after finishing a literary period or major work. Students will also have periodic cumulative vocabulary tests. The senior capstone project takes place throughout the year, and its successful completion is a graduation requirement. The project involves a major paper and speech presentation in which students answer the question, “How does one live well?”

**Summer Reading:**

*Beowulf*

[AP English Literature and Composition](#)

**2 Credits**

**Prerequisite:**

Completion of Honors American Literature and Composition (English 11) or AP English Language and Composition with a B or higher.



**Purpose:**

This specific course, in addition to meeting course guidelines established by the College Board, will focus on British Literature and will include texts by representative authors from the beginnings of the language in Old and Middle English up to the present day. Primary texts will be supplemented with work in grammar, vocabulary, writing, and speech. Not only will students become prepared for the AP test in May, but they will gain a greater historical and philosophical perspective by observing how trends in thought have changed. They will also master the art of analyzing literature and mining it for its beauty and meaning.

**Textbooks used in the class:**

Students will read selections from *The Longman Anthology of British Literature*, Vol. 1 and 2, as well as supplementary texts such as Lewis' *Abolition of Man*, Shakespeare's *Macbeth* and *Othello*, and Orwell's *1984*. The basic text in grammar is *The Elements of Style* by E B White and William Strunk. Vocabulary is studied in conjunction with literature as well as from *Vocabulary Workshop* (Level G).

**Classwork:**

The class is more discussion-based than the Honors classes, so students will be expected to come prepared to discuss it in greater depth. Students will write essays and more informal journal entries based on the literature at least once per week. Quizzes are given regularly in spelling, vocabulary, literature, and grammar. All quizzes are announced except for reading quizzes, which cover the reading from the previous night. There is a significant amount of in-class preparation for the AP exam during the second semester as well.

**Homework:**

Reading assignments are given daily. There are often vocabulary, grammar, and take-home writing assignments as well. All homework must be completed in ink and turned in on time. The homework helps the students practice the concepts and skills they have learned in class in order to internalize the information and so well on larger assessments.

**Tests/Projects/Exams:**

There will be tests over each era of literature, major topic in grammar, and set of vocabulary words. Students will memorize and recite several poems throughout the year for a test grade as well. Binder checks count as a test grade every quarter. The senior capstone project takes place throughout the year, and its successful completion is a graduation requirement. The project involves a major paper and speech presentation in which students answer the question, "How does one live well?"

**Summer Reading:**

*Beowulf*

## *English Department Electives*

## Literature Survey: Gothic Literature

### **1 Credit**

#### **Purpose:**

This course is designed to give students an overview of the genre of Gothic fiction, starting with its roots in 18th Century England and ending with 20th Century American fiction. The course will analyze how the gothic tradition began, evolved, and has influenced modern culture. Readings in the course include numerous short stories by a wide range of authors from the Gothic tradition. Authors studied in the course include Edgar Allen Poe, Charles Dickens, Bram Stoker, Nathaniel Hawthorne, H.P. Lovecraft, William Faulkner, Joyce Carol Oates, and many others. By the time students have completed this course, they will have gained an understanding of and an appreciation for the complex nature of dark fiction.

#### **Textbook:**

Various short stories

#### **Classwork:**

In-class work will consist mostly of reading and discussing works together, along with some writing.

#### **Homework:**

Homework will be minimal but will require occasional writing.

## Literature Survey: Masters of Science Fiction

### **1 credit**

#### **Purpose:**

This one-semester course is an in-depth exploration of a genre with a roughly 160-year history. By removing the constraints of historical and modern settings, the science fiction author is able to examine the human condition and society in truly unique ways. The greatest works in this genre attempt to answer some of life's most important questions. For example:

- What makes us human?
- What is the nature of society?
- What is the purpose of the individual?
- What is the relationship between creators and their creation?
- What constitutes life?
- Where are we headed as a species?
- Can the future be predicted?
- Can the past be understood?
- How do philosophy, religion, politics, and technology inform our understanding of ourselves?
- How do we maintain our morality in an uncertain future?

This course will look at proposed answers to these questions from some of the greatest thinkers of the past two centuries though in-class and some at-home reading and daily literary discussion. Authors studied include Jules Verne, H.G. Wells, Aldous Huxley, Ray Bradbury, Robert Heinlein, Aglis Budrys, Arthur C. Clark, Philip K. Dick, Kurt Vonnegut, Jr., Orson Scott Card, and Isaac Asimov.

**Textbook:**

- *From the Earth to the Moon* – Jules Verne
- *The War of the Worlds* – H. G. Wells
- *Rogue Moon* – Algis Budrys
- *Foundation* – Isaac Asimov

**Classwork:**

In-class work will consist mostly of reading and discussing works together, along with some writing.

**Homework:**

Due to the amount of material covered, students should expect a small amount of reading most nights. There is also a film-based analysis project presented in the final month of the class.

[Yearbook](#)

**1 Credit**

**Purpose:**

Yearbook is a year-long elective in which students learn and apply the basics of layout, design, copy writing, and photography. Students will work together to create the annual high school yearbook. This is one of the most important classes at Vanguard in learning how to work as part of a team. Throughout the semester, students will learn organizational and time management skills, different compositional techniques in photography, practice Vanguard-fostered journalistic skills, and learn various software programs, among other things.

**Textbook:**

None

**Classwork:**

During class time, students will:

- Demonstrate knowledge of Yearbook Avenue online software, Adobe InDesign, Illustrator, Freehand, and Photoshop software.
- Demonstrate organizational and time management skills by meeting deadlines completely, correctly, and on time.
- Develop compositional techniques in photography, use them to take effective pictures, and use digital imaging software effectively.

- Use Vanguard-fostered journalistic skills with style to write copy, captions, and headlines.
- Develop interpersonal skills as they learn to work together as a team.
- Demonstrate knowledge of elements of yearbook design by developing layouts that are reflective of current trends.

**Homework:**

None

**Tests/Projects/Exams:**

Project work only

## *Fine Arts Department*

### Art History

#### **1 Credit**

#### **Purpose:**

This one-semester course traces the history of art from prehistoric times and ancient civilizations all the way through the twentieth century. Students become familiar with basic terminology, time periods, movements, and artists, as they learn to analyze art intelligently.

#### **Textbook:**

Janson, H. W., and Penelope J. E. Davies. *Janson's Basic History of Western Art*. Upper Saddle River, N.J.: Pearson Prentice Hall, 2009.

#### **Classwork:**

This is a discussion-based course with an emphasis on critical thinking and analysis. In class we view slides of artwork and discuss their significance. The students are expected to contribute to class discussions, to listen attentively and to take notes during class. Students will have weekly quizzes in class that serve as a formative assessment of what they have learned in each lesson before moving to the next.

#### **Homework:**

To prepare for class, the students are assigned readings from the textbook and questions to answer that correspond to the content we will cover during class. The students are expected to take notes on their readings to help ensure that they understand the material, and also so that they can later use those notes as a study guide for exams. Apart from the usual reading guides, students will have a small project for each unit. Although they will be given some class time to work on the project, the majority of work will be done for homework.

#### **Tests/Projects/Exams:**

We will have a test in this class at the end of every unit and a notebook check every quarter. At the end of the semester, students will research an artist of their choice for the final project, which will involve a three-part research project and presentation. Students will also take a cumulative final exam at the end of the semester.

### Music History

#### **1 Credit**

#### **Purpose:**

This one-semester course is designed to help the student begin to understand the essential elements of classic western music history through an analysis of the student's personal musical aesthetical perspective and how it fits in context with a larger world historical aesthetic. While we will study music from pre-history to the present, we will focus on the common practice era (1600-1803).

**Textbook:**

Kerman, Joseph and Tomlinson, Gary. *Listen Sixth Edition*. Boston, New York: Bedford/St. Martin's

**Classwork:**

We will do extensive listening and discussion in class. In addition, students will be assigned readings and be expected to return worksheets based on terms and concepts drawn from these readings. Tests will be given on larger portions of the book. Occasional listening quizzes will be given in class.

**Homework:**

In addition to worksheets, students are expected to take appropriate notes on assigned readings and in classroom discussions.

**Tests/Projects/Exams:**

Tests will be given after longer units of study or more in-depth chapters. The student's final project will make up 10% of the student's grade. A final exam will be given at the end of the semester.

## *Fine Arts Department Electives*

### 2-D Art I

#### **1 Credit**

#### **Purpose:**

The purpose of this class is to teach each student problem-solving techniques in the areas of composition and mechanics so that they will be equipped with the proper tools to express their creative ideas in credible art forms.

#### **Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized.

#### **Classwork:**

The semester starts with a few technical drawing exercises that formulate into a detailed self-portrait. This portrait is highly regulated with the use of mechanical aids that guarantee success for all the students. After the portrait, students are to experience two diverse types of printmaking that serves as an extension to the drawing curriculum. The intaglio print project utilizes fine lines that form the image while the relief print is a bulkier image that prints the surface rather than the carved/engraved areas. Another drawing element visited in this class is gestural figure drawing. This spontaneous discipline is the complete opposite of the controlled self-portrait with both procedures having equal merit. The rest of the semester is used to help students explore different mediums of choice through independent studies. Time-proven theories are evaluated through the students' discoveries using these different art sources.

#### **Homework:**

All work is to be conducted in the classroom.

#### **Projects:**

The semester projects in 2-D Art I are hand drawing, self-portrait, intaglio print, relief print, figure drawing, and independent studies.

### 2-D Art II

#### **1 Credit**

#### **Prerequisite:**

2-D Art I

#### **Purpose:**

The purpose of this class is to teach each student problem-solving techniques in the areas of composition and mechanics so that they will be equipped with the proper tools to express their creative ideas in credible art forms.

**Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized.

**Classwork:**

The semester starts with a full comprehensive color theory lesson that encompasses a value/color wheel and a neutral color grid. These exercises help the students understand all three elements of painting: hue, value, and saturation. After the color theory lesson plan, the students will pick-up where they left off in 2-D Art I with their independent studies. At this point, they will be encouraged to show more breadth than depth in their work.

**Homework:**

All work is to be conducted in the classroom.

**Projects:**

The semester projects in 2-D Art II are color theory (value/color wheel, neutral grid) and a variety of independent studies.

**2-D Art III****1 Credit****Prerequisite:**

2-D Art II

**Purpose:**

The purpose of this class is to teach each student problem-solving techniques in the areas of composition and mechanics so that they will be equipped with the proper tools to express their creative ideas in credible art forms.

**Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized.

**Classwork:**

With this being their third semester in 2-D Art, the students will be encouraged to start dialing in on a couple of their choice mediums and exploring them with more depth. If the student is in their senior year at this point, the instructor will be working with him in creating a body of work for their senior portfolio.

**Homework:**

All work is to be conducted in the classroom.

**Projects:**

The semester projects in 2-D Art III contain a variety of independent studies.



## 2-D Art IV

### **1 Credit**

#### **Prerequisite:**

2-D Art III

#### **Purpose:**

The purpose of this class is to teach each student problem-solving techniques in the areas of composition and mechanics so that they will be equipped with the proper tools to express their creative ideas in credible art forms.

#### **Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized.

#### **Classwork:**

The students in 2-D Art IV are expected to be working with more focus in-depth methods of art making. Choosing original content with greater degrees of complexity are points of emphasis for these fourth semester 2-D art students. If the student is in his senior year, he will be working on creating a body of work for his senior portfolio.

#### **Homework:**

All work is to be conducted in the classroom.

#### **Projects:**

The semester projects in 2-D Art IV contain a variety of independent studies formulating into a body of work to add to each student senior portfolio.

## 2-D Art V

### **1 Credit**

#### **Prerequisite:**

2-D Art IV

#### **Purpose:**

The purpose of this class is to teach each student problem-solving techniques in the areas of composition and mechanics so that they will be equipped with the proper tools to express their creative ideas in credible art forms.

#### **Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized.

#### **Classwork:**

The students in 2-D Art V are expected to be working with more focus in-depth methods of art making. Choosing original content with greater degrees of complexity is a point of focus. The students that are in their fifth semester of 2-D art studies will also be focused on their senior

portfolio. If the student is going on to study art in college, the class will emphasize conducting research on what each prospective college is looking for and creating art that fulfills those objectives.

**Homework:**

All work is to be conducted in the classroom.

**Projects:**

The semester projects in 2-D Art V contain a variety of independent studies formulating into a body of work to finalize each senior portfolio and fulfill college entrance requirements.

Acting

**1 Credit**

**Purpose:**

This introduction to theatre class is designed to give the beginning theatre student a deeper appreciation and understanding for the fine and practical art of theatre. Study will concentrate on the history, vocabulary and creative processes within this artistic discipline. As a class ensemble, students will explore the tools of the voice and body, as well as seek for a dynamic energy that will bring action to the performance space of the theatre classroom. These objectives will be met by sharpening skills through: storytelling, character development, improvisation, creative movement, and scripted presentations. By learning these skills, students may become more aware of themselves and how they are perceived by others. Students must participate to learn, and they may discover that they enjoy performing and feel more comfortable speaking in front of a group.

**Textbook:**

None

**Classwork:**

Daily rehearsal of scenes and occasional assignments involving character and script analysis.

**Homework:**

Minimal out of class requirements like memorizing lines.

**Tests/Projects/Exams:**

Project work only

Advanced Instrumental Ensemble (AIE)

**2 credits**

**Prerequisite:**

This course will be available to any instrumentalist by audition. Students must audition four scales (C, D, Bb, and Eb), a prepared piece of their choice, and a sight-reading selection.

**Purpose:**

This course we be offered to those students who desire and are prepared to play advanced

music. As in the current instrumental music program, music will be selected and, when necessary, adapted to fit the ensemble. These students must also be in the morning instrumental music ensemble. Students must be advanced instrumentalists.

**Textbook:**

All materials for the ensemble will be selected from more advanced instrumental music. The course instructor will select pieces reflective of many different styles and eras

**Classwork:**

Class will begin with structured warm-up exercises and move into the music currently in the repertory.

**Homework:**

Students are always expected to practice at least 30 minutes per day (pending homework).

**Tests/Projects/Exams:**

Occasional playing tests may be called. Generally, I hear every student individually every day, and can judge his/her progress.

[AP Music Theory](#)

**2 Credits**

**Prerequisite:**

Experience with a curricular ensemble and/or teacher approval

**Purpose:**

Students in AP Music Theory learn how the various elements of music are employed in music composition during the Common Practice Era (approx. 1600-1900). Emphasis is placed on the rules of music theory, aural skills, analysis, and composition. This course is designed with the future professional musician in mind, though it is also helpful for those who are serious about their musical knowledge and enrichment. Through successful completion of homework, class discussion, quizzes, tests, and projects, students will be prepared for the AP Music Theory exam.

**Textbook:**

Clendinning, Jane Piper., and Elizabeth West Marvin. *The Musician's Guide to Theory and Analysis, with Workbook*. New York: W.W. Norton, 2011. Print.

**Classwork:**

Each class will begin with sight reading exercises and harmonic or melodic dictation. Students are expected to take notes in class. There will be portions of active listening, where students will need to analyze music from the score or aurally.

**Homework:**

Students will have daily homework including worksheets, reading, part-writing, and listening assignments.

**Tests/Projects/Exams:**

Students will be given tests over sections of the textbook. These tests will include AP sample questions, as well as sight-reading, dictation, and listening examples. Students will have a major project at the end of the semester, where they will compose their own piece using common practice techniques. The midterm exam is based on the format of the AP exam and will be given at the end of the first semester. Students are required to take the AP exam in May.

**Summer Reading:**

Students are required to complete a summer reading packet pulled from the textbook.

**AP Studio Art: 2D Design, 3D Design, Drawing****2 Credits****Prerequisite:**

Two semesters of art and approval from the high school art teacher

**Purpose:**

Drawing is defined as mark-making which includes brush strokes in painting as well as conventional drawing. 2-D design entails a wider range of mediums spanning from computer graphics, illustration, as well as drawing and painting. Sculpture is defined by any three-dimensional creation using the material of choice. This course is a full year requirement versus the single semester art elective.

**Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized.

**Classwork:**

This course has a requirement of creating 15 quality art pieces that are formulated with a concentration of style, medium, and concept.

**Homework:**

All work is to be conducted in the classroom.

**Projects:**

The semester projects in AP Studio Art contain a variety of independent studies formulating into a body of work to finalize each AP portfolio that is required to submit.

**Ceramics I****1 Credit****Purpose:**

Each student will learn problem solving techniques in the areas of composition and mechanics so that he will be equipped with the proper tools to express his creative ideas in credible art forms.

**Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized. The instructor will provide students with PDFs from credible potter workbooks.

**Classwork:**

Ceramic I students will learn the three types of hand building skills. These techniques are coil, pinch, and slab building. After the students experience and master these methods of building, they will work with these methods in creating their choice of ceramic sculpture. A variety of methods of glazes and patinas will be explored throughout the semester.

**Homework:**

Students will be required to keep a sketchbook of their ideas for individual projects.

**Projects:**

The semester projects in beginning ceramics are coil building, sphere using pinch technique, slab with a lid, and individual sculpture studies.

## Ceramics II

**1 Credit****Prerequisite:**

Ceramics I

**Purpose:**

Each student will learn problem solving techniques in the areas of composition and mechanics so that he will be equipped with the proper tools to express his creative ideas in credible art forms.

**Textbook:**

A strong collection of art references found throughout the internet and a library of books and past student works will be utilized. The instructor will provide students with PDFs from credible potter workbooks.

**Classwork:**

Ceramic II students will use their knowledge of the three basic hand building techniques that they learned in beginning ceramics and expand into sculpture with more advanced composition and complexity. Students are required to create a relief sculpture in this class. Students will begin wheel throwing techniques and will learn technical processes in advanced ceramic design.

A combination of colored slip and glazes will be used with more advanced complexity and mastery.

**Homework:**

Students will be required to keep a sketchbook of their ideas for individual projects.

**Projects:**

The Ceramics II students are to create a relief sculpture along with producing a variety of individual ceramic sculptures.

## Choir

**1 Credit****Purpose:**

This interactive course explores the art of ensemble singing and accommodates all types of singers (beginner-advanced). Focusing on vocal technique and style, sight singing with solfege, rhythm exercises, basic music theory, and most importantly the balance and blend required in choral singing, students prepare and perform a variety of repertoire from Western music history, sacred traditions, folk music, and musical theater. Prior experience is not required, and there is no audition.

**Textbook:**

None

**Classwork:**

Daily rehearsals begin with warm-up exercises including vocalizations and solfege scales and patterns. The remainder of the rehearsal is focused on mastery of repertoire and singing techniques.

**Homework:**

None

**Tests/Projects/Exams:**

Concert performances are considered the tests in choir. Students are required to attend every concert. There is no final exam.

## Honors Chamber Choir

**2 Credits****Prerequisite:**

One semester of choir and an audition

**Purpose:**

The Vanguard School Chamber Singers is a select ensemble that rehearses during the school day. This is a year-long elective. The goal of this ensemble is to expose students to a variety of higher-level styles of unaccompanied repertoire. Students will learn pieces from many different eras of music history, and there will be a major focus on sight reading, music theory, music history, musicianship, and performance practice. Students in this ensemble are strongly

encouraged to audition for Colorado All State Choir, and they will work in class preparing the skills necessary to audition (not including solo repertoire). To participate in select choir, students are required to complete an audition and be a current member of The Vanguard School Singers (choir).

**Textbook:**

None

**Classwork:**

Daily rehearsals begin with warm-up exercises including vocalizations and solfege scales and patterns. The remainder of the rehearsal is focused on mastery of repertoire and singing techniques.

**Homework:**

Students must turn in a 30-minute practice journal each week.

**Tests/Projects/Exams:**

Concert performances are considered the tests in choir. Students are required to attend every concert. There is no final exam.

**Course Fee:**

**\$50**

[Instrumental Music](#)

**1 Credit**

**Purpose:**

This is a continuing course designed to build a recognized high school instrumental ensemble. We will study music of the classical composers as well as appropriate current music. Music fundamentals will be a part of every rehearsal. In addition, students will lead some in-class scale studies.

**Textbook:**

None

**Classwork:**

The ensemble will rehearse daily to master the literature chosen for each semester. Individual playing tests may be included in these rehearsals.

**Homework:**

Practice is encouraged outside of class.

**Tests/Projects/Exams:**

Instrumental Ensemble concerts are considered the student's tests and are required. There is no final exam.

[Photography I](#)

**1 Credit**

**Purpose:**

This course provides a broad experience in photography to match students to the tools they find most creative and useful. Students gain in-depth knowledge about the machine they're using, and they are provided with the tools to get creative and analytical.

**Textbook:**

*Better Photo Basics: The Absolute Beginner's Guide to Taking Photos Like the Pros* by Jim Miotke

**Classwork:**

This is a working studio class, and the history of photography and proven techniques from masters in art and photography are studied. They will then study depth of field, motion blur, and stop motion. This is followed by an in-depth examination of the quality of light. Students finish the course with a carefully executed study in composition. The student is also introduced to Photoshop.

**Homework:**

None

**Tests/Projects/Exams:**

Project work only

**Course Fee:**

**\$50**

## Photography II

**1 Credit****Prerequisite:**

Photography I

**Purpose:**

Students will expand their photography skills and understanding of imaging, and develop problem-solving techniques in the areas of composition, camera tools, and photo retouching so that he will be able to express his creative ideas in high quality, artistic photography.

**Textbook:**

*The Better Photo Guide to Creative Digital Photography: Learn to Master Composition, Color, and Design* by Jim Miotke

**Classwork:**

This is a working studio class. In addition to reinforcing subjects learned in the beginning course, the following are examples of aspects of photography that might be covered throughout the course:

- 3 similar RGB channels combined into a single image
- Montage



- Expanded understanding of focal length and how telephoto, wide angle, normal, reverse lens, and macro lenses affect depth of field
- Filmography
- A more thorough examination of color, limited pallet, and graphic design in the photograph
- Glycerin droplet shots on plants and glasses
- The silhouette
- Extreme viewpoints
- Moving water and a more thorough investigation of stopping water action.

**Homework:**

None

**Tests/Projects/Exams:**

Project work only

**Course Fee:**

**\$50**

[Photography III](#)

**1 Credit**

**Prerequisite:**

Photography I (Photography II is recommended but not required)

**Purpose:**

Students will expand and develop their problem-solving techniques in the areas of composition, camera tools, and photo retouching so that they will be able to express their creative ideas in high quality, artistic photography. They will also expand their skills into creating transparencies, movie posters, food packaging, and movie trailers.

**Textbook:**

None

**Classwork:**

This is a working studio class. In addition to reinforcing subjects learned in the beginning courses, the following are examples of aspects of photography that might be covered throughout the course:

- 3-D transparency shoot
- Movie poster
- Movie snack
- Movie trailer
- Out of Place (Photoshop project)

**Homework:**

None

**Tests/Projects/Exams:**

Project work only

**Course Fee:**

\$50

**Photography IV****1 Credit****Prerequisite:**

Photography I and Photography II or III (both II and III are recommended but not required)

**Purpose:**

Students will expand and develop their problem-solving techniques in the areas of composition, camera tools, and photo retouching so that they will be able to express their creative ideas in high quality, artistic photography. The students will be expanding their skills into Photoshop expertise.

**Textbook:**

None

**Classwork:**

This is a working studio class. In addition to reinforcing subjects learned in the beginning courses, the following are examples of aspects of photography might be covered throughout the course:

- Animation
- Floaters
- Photography Noir
- Worm With a View
- The Shadow Knows

**Homework:**

None

**Tests/Projects/Exams:**

Project work only

**Course Fee:**

\$50

## *History Department*

### Classical World History

#### **2 credits**

#### **Purpose:**

This introductory course will focus on the important events, major texts, and works of art that represent and clearly illustrate what is unique and central to the Judeo-Christian and Greco-Roman traditions taken separately, then come to grips with the synthesis and opposition to synthesis between these traditions that occurred in antiquity. The course is designed to establish the religious, philosophical, political, and economic contexts most crucial to the study of Western history and literature, taking time to explain how these early ideas would later impact Western Civilization culminating in the founding of the United States. This is a non-honors course designed to prepare each student for success in later honors courses. As such it is by teacher recommendation only and registration is handled on a student-by-student basis.

#### **Textbook:**

- Winks, Robin W, and Susan P Mattern. *The Ancient Mediterranean World : From the Stone Age to A.D. 600*. New York, Oxford University Press, 2004.
- Aristotle. *Politics*. Translated by T.A. Sinclair and T.J. Saunders. New York: Penguin, 1992.
- Herodotus. *Histories*. Translated by Aubrey De Selincourt. New York: Penguin, 2003.
- Hesiod. *Theogony; Works and Days*. Translated by M.L. West. Oxford: Oxford University Press, 1999.
- Livy. *Stories of Rome*. Translated by Roger Nicols. New York: Cambridge University Press, 1999.
- Plato. *The Republic*. Translated by D. Lee and H.D. Pritchard. New York: Penguin, 2003.
- Thucydides. *History of the Peloponnesian Wars*. Translated and edited by Rex Warner. New York: Penguin, 2003.

#### **Classwork:**

Students will complete a warm-up activity over the previous day's lesson at the start of each class. Then they will follow along through guided interactive lecture and notes. Some days will require student participation while discussing key philosophical ideas and student opinions.

#### **Homework:**

Nightly reading will provide content for the next day's lesson as well as discussion of more in-depth primary sources. Reading will be accompanied by a reading guide to focus attention to key details and prepare students for quizzes and tests.

#### **Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. There will be one major yearlong research project.

Students will conduct a lengthy research project drafting an annotated biography about a specific figure of their choosing. This project will focus on research skills, thesis, and argument construction, as well as learning how to approach a project of such a scale. Each semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

*Prometheus Bound* – Aeschylus and other select works

**Honors Classical World History**

**2 Credits**

**Purpose:**

This course will emphasize the important events, major texts, and works of art that represent and clearly illustrate what is unique and central to the Judeo-Christian and Greco-Roman traditions taken separately, then come to grips with the synthesis and opposition to synthesis between these traditions that occurred in antiquity. The course is designed to establish the religious, philosophical, political, and economic contexts most crucial to the study of Western history and literature. This is an honors course designed to prepare each student for success in later honors and Advanced Placement courses.

**Textbook:**

- Winks, Robin W, and Susan P Mattern. *The Ancient Mediterranean World : From the Stone Age to A.D. 600*. New York, Oxford University Press, 2004.
- Aristotle. *Politics*. Translated by T.A. Sinclair and T.J. Saunders. New York: Penguin, 1992.
- Herodotus. *Histories*. Translated by Aubrey De Selincourt. New York: Penguin, 2003.
- Hesiod. *Theogony; Works and Days*. Translated by M.L. West. Oxford: Oxford University Press, 1999.
- Livy. *Stories of Rome*. Translated by Roger Nicols. New York: Cambridge University Press, 1999.
- Plato. *The Republic*. Translated by D. Lee and H.D. Pritchard. New York: Penguin, 2003.
- Thucydides. *History of the Peloponnesian Wars*. Translated and edited by Rex Warner. New York: Penguin, 2003.

**Classwork:**

Students will complete a warm-up activity over the previous day’s lesson at the start of each class. Then they will follow along through guided interactive lecture and notes. Some days will require student participation while discussing key philosophical ideas and student opinions.

**Homework:**

Nightly reading will provide content for the next day’s lesson as well as discussion of more in-depth primary sources. Reading will be accompanied by a reading guide to focus attention to key details and prepare students for quizzes and tests.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. There will be one major yearlong research project.

Students will conduct a lengthy research project drafting an annotated biography about a specific figure of their choosing. This project will focus on research skills, thesis, and argument construction, as well as learning how to approach a project of such a scale. Each semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

*Prometheus Bound* – Aeschylus and other selected works

**European History****2 credits****Prerequisite:**

Classical World History

**Purpose:**

This year-long introductory course will cover the development of European civilization from the fall of Rome in 476 A.D. through the Cold War in the 20th century. In the first semester, this course will explore topics including the Middle Ages, the Renaissance, and Reformation, and the Scientific and Intellectual Revolutions. The second semester begins with the French Revolution and rise of Napoleon, the development of industrialization, capitalism, Communism, and events of the two World Wars of the 20th century. Throughout the year, students will read and critically analyze various primary sources to gain a deeper understanding of history beyond the textbook and class lectures. This is a non-honors course designed to prepare each student for success in later honors courses. As such it is by teacher recommendation only and registration is handled on a student-by-student basis.

**Textbook:**

- Spielvogel, Jackson J. *Western Civilization*. 7th ed. Thomas Wadsworth, 2009.
- Perry, Marvin, Joseph R. Peden, and Theodore H. Von Laue, editors. *Sources of the Western Tradition*, 6th ed.
- Einhard. *Life of Charlemagne*
- Niccolo, Machiavelli. *The Prince*
- Remarque, Erich Maria. *All Quiet on the Western Front*
- Wiesel, Elie. *Night*

**Classwork:**

Students will complete a warm-up activity over the previous day's lesson or homework at the start of each class. They will then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key historical ideas and student

opinions. During large projects, some class time will be set aside for student responsibility coordinating.

**Homework:**

Nightly reading assignments will provide content for the next day's lesson as well as discussion of more in-depth primary sources. This reading will be assessed through warm-ups, quizzes, and tests. Along with nightly reading, students will continually have projects to work on as well.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Team-based mini-projects, culminating in some kind of presentation or debate in front of the class, with each unit (develops oral communication and informal leadership skills); book report in Fall semester on a book from a provided list, 4-6 page report; research paper in Spring semester, including selecting a topic within European history, development of a question in that topic, conduct of research to answer the question, and production of a 6-8 page research paper to explain and defend that answer. Each semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

*A Man for All Seasons* – Robert Bolt

[Honors European History](#)

**2 Credits**

**Prerequisite:**

Honors Classical World History

**Purpose:**

This year-long course will cover the development of European civilization from the fall of Rome in 476 A.D. through the Cold War in the 20<sup>th</sup> century. In the first semester, this course will explore topics including the Middle Ages, the Renaissance, the Reformation, and the Scientific and Intellectual Revolutions. The second semester begins with the French Revolution and rise of Napoleon, the development of industrialization, capitalism, Communism, and events of the two World Wars of the 20<sup>th</sup> century. Throughout the year, students will read and critically analyze various primary sources to gain a deeper understanding of history beyond the textbook and class lectures.

**Textbook:**

- Spielvogel, Jackson J. *Western Civilization*. 7th ed. Thomas Wadsworth, 2009.
- Perry, Marvin, Joseph R. Peden, and Theodore H. Von Laue, editors. *Sources of the Western Tradition*, 6th ed.
- Einhard. *Life of Charlemagne*
- Niccolo, Machiavelli. *The Prince*
- Remarque, Erich Maria. *All Quiet on the Western Front*

- Wiesel, Elie. Night

**Classwork:**

Students will complete a warm-up activity over the previous day's lesson or homework at the start of each class. They will then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key historical ideas and student opinions. During large projects, some class time will be set aside for student responsibility coordinating.

**Homework:**

Nightly reading assignments will provide content for the next day's lesson as well as discussion of more in-depth primary sources. This reading will be assessed through warm-ups, quizzes, and tests. Along with nightly reading, students will continually have projects to work on as well.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Team-based mini-projects, culminating in some kind of presentation or debate in front of the class, with each unit (develops oral communication and informal leadership skills); book report in fall semester on a book from a provided list, 4-6 page report; research paper in spring semester, including selecting a topic within European history, development of a question in that topic, conduct of research to answer the question, and production of a 6-8 page research paper to explain and defend that answer. Each semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

*A Man for All Seasons* – Robert Bolt

**[AP European History](#)****2 Credits****Prerequisite:**

Completion of Honors The Classical World with a B or higher

**Purpose:**

The Advanced Placement program in European History (APEH) is a college-level course that “seeks to apprentice students to the practice of history by explicitly stressing the development of historical thinking skills while learning about the past.<sup>1</sup>” Completing this course, plus the AP exam, is equivalent to college introductory courses in European History. This class will cover the development of European civilization from 1450 to the present using extensive reading in both primary and secondary sources. In the first semester, students will explore topics including the Renaissance, the Reformation, the Scientific Revolution, the Enlightenment, the French Revolution, and the Napoleonic Wars. In the second semester, students will examine

the coming of industrialization, the shift to popular government, capitalism, Communism, the two World Wars, the Cold War, and the post-cold-war efforts towards European unity.

Textbook:

- Spielvogel, Jackson J. *Western Civilization*. 7th ed. Thomas Wadsworth, 2009.
- Perry, Marvin, Joseph R. Peden, and Theodore H. Von Laue, editors. *Sources of the Western Tradition*, 6th ed.
- Einhard. *Life of Charlemagne*
- Niccolo, Machiavelli. *The Prince*
- Remarque, Erich Maria. *All Quiet on the Western Front*
- Wiesel, Elie. *Night*

In addition to the books listed with each unit above, there will be regular reading assignments from the following:

- Merriman, John W. *A History of Modern Europe*, 3<sup>rd</sup> ed. New York, W. W. Norton & Company, 2010.
- The Fordham University Internet History Sourcebooks Project (<http://www.fordham.edu/Halsall/index.asp>)
- The “Europeana” EU Culture Project (<http://www.europeana.eu/portal/>)
- The W. W. Norton & Co *History of Western Music* (<http://www.wwnorton.com/college/music/grout7/home.htm>)
- *The Art of War in World History*, Gerard Chaliand ed)
- *Sources of European History: Since 1900*, 2<sup>nd</sup> ed, Perry, Berg, and Krukones, eds)
- Boston: Houghton Mifflin Company, 2006.
  - Vol I (From Ancient Times to the Enlightenment)
  - Vol II (From the Renaissance to the Present)

### **Classwork:**

Students will complete a warm-up activity over the previous day’s lesson or homework at the start of each class. Then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key historical ideas and student opinions. During large projects some class time will be set aside for student responsibility coordinating.

### **Homework:**

Nightly reading will provide content for the next day’s lesson as well as discussion of more in-depth primary sources. This reading will be assessed through warm-ups, quizzes, and tests. Along with nightly reading, students will continually have projects to work on as well.

### **Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Team-based mini-projects, culminating in some kind of



presentation or debate in front of the class, with each unit (develops oral communication and informal leadership skills); book report in Fall semester on a book from a provided list, 4-6 page report; research paper in Spring semester, including selecting a topic within European history, development of a question in that topic, conduct of research to answer the question, and production of a 6-8 page research paper to explain and defend that answer. Each semester will finish with a two-hour exam assessing all information covered during the semester.

Specific to this course is a form of writing assignment called the Document-Based Question, or DBQ, designed to train and evaluate the student's ability to form historical arguments based on analysis and interpretation of a variety of primary source materials, including written, graphic, and artistic. To prepare students for this unique aspect of the AP exam, they will do at least one DBQ in each of the course's ten units, initially as a homework over several days, and as a timed in-class exercise by the end of the second semester.

**Summer Reading:**

*A Man for All Seasons* – Robert Bolt; Selected chapters from *The Pursuit of History* - John Tosh

[Honors United States History](#)

**2 Credits**

**Prerequisite:**

European History

**Purpose:**

The most important work in America is teaching American history and government. History functions for a nation as memory does for an individual. Without memory, an individual or a nation has no identity, and ultimately, no existence. With false memories, each has only a distorted sense of self, misconceptions of virtues and vices, strengths and weaknesses - and hence little chance of a better life.

This year-long course will familiarize students with the colonization and growth of the United States from the founding of Jamestown in 1607 to the events and challenges facing us as a nation today. The first semester will cover through the end of Reconstruction in 1877, concentrating on the three seminal periods of the American Revolution and establishment of the Republic, the evolution from Jeffersonian to Jacksonian Democracy and Manifest Destiny, and the American Civil War and Reconstruction. The second semester begins with Western expansion and concentrates on the rise of the city, the Progressive Era, World War I and the Great Depression, World War II, the civil rights movement, and America as a superpower through the end of the Cold War. Major themes such as the United States Constitution; the evolution of an American culture and identity; the impact of slavery; immigration, demographic changes, and diversity; economic transformations; politics and citizenship; reform; religion; and war and diplomacy will provide the threads of continuity with which to compare and analyze each period of study.

**Textbook:**

Brinkley, Alan. *American History: A Survey*, 12<sup>th</sup> edition. New York: McGraw Hill, 2003.

Various primary sources will be assigned through handouts.

**Classwork:**

Students will complete a warm-up activity over the previous day's lesson or homework at the start of each class. Then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key historical ideas and student opinions.

**Homework:**

Nightly reading will provide content for the next day's lesson as well as discussion of more in-depth primary sources. Each reading will be accompanied by a worksheet that will push students to critically think on key terms throughout the reading along with basic note taking. This reading will be assessed through warm-ups, quizzes, and tests.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Students will research and plan a speech on any individual or event significant to U.S. history of their own choosing with instructor approval. They will then present a 10 – 12 minutes speech on their topic to the class. Each semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

*The American Revolution: A History* – Gordon Wood

**AP United States History****2 Credits****Prerequisite:**

Completion of Honors European History with a B or higher

**Purpose:**

The most important work in America is teaching American history and government. History functions for a nation as memory does for an individual. Without memory, an individual or a nation has no identity, and ultimately, no existence. With false memories, each has only a distorted sense of self, misconceptions of virtues and vices, strengths and weaknesses - and hence little chance of a better life.

Advanced Placement (AP) United States History is designed to enable students to develop analytical skills and acquire a thorough knowledge of United States history. The goal of this AP course is, quite simply, to enable students to do well on the AP exam, that is, achieve a score of 4 or 5. To do so, this year-long course will familiarize students with the colonization and growth of the United States from the founding of Jamestown in 1607 to the events and challenges facing us as a nation today. The first semester will cover through the end of Reconstruction in

1877, concentrating on the three seminal periods of the American Revolution and establishment of the Republic, the evolution from Jeffersonian to Jacksonian Democracy and Manifest Destiny, and the American Civil War and Reconstruction. The second semester begins with Western expansion and concentrates on the rise of the city, the Progressive Era, World War I and the Great Depression, World War II, the civil rights movement, and America as a superpower through the end of the Cold War. Major themes such as the United States Constitution; the evolution of an American culture and identity; the impact of slavery; immigration, demographic changes, and diversity; economic transformations; politics and citizenship; reform; religion; and war and diplomacy will provide the threads of continuity with which to compare and analyze each period of study.

**Textbook:**

- **Primary text:** Brinkley, Alan. *American History: A Survey*, 12<sup>th</sup> edition. New York: McGraw Hill, 2003.
- **Supplementary texts:**
  - George, Jason, and Jerald Brown, *AP Achiever: Advanced Placement Exam Prep Guide to accompany American History*, 12<sup>th</sup> edition. New York: McGraw Hill, 2007.
  - *An American Primer*, edited by Daniel J. Boorstin. New York: Meridian, 1995.
  - McMichael, George, ed. *The Concise Edition of American Literature*, 5<sup>th</sup> ed. Upper Saddle River, NJ: Prentice hall, 1998
  - Hillsdale College Department of History. *American Heritage: A Reader*, 2<sup>nd</sup> edition. Acton, MA: Tapestry Press, 2001.
  - *Annals of America*. Chicago: Encyclopedia Britannica, Inc., 1974.
  - Riis, Jacob A. *How the Other Half Lives: Studies among the Tenements of New York*. New York: Dover, 1971. Print.
  - Loewen, James W. *Lies My Teacher Told Me: Everything Your American History Textbook Got Wrong*. New York: New, 1995. Print.
  - Other anthologies as required

**Classwork:**

Students will complete a warm-up activity over the previous day's lesson or homework at the start of each class. Then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key historical ideas and student opinions.

**Homework:**

Nightly reading will provide content for the next day's lesson as well as discussion of more in-depth primary sources. Each reading will be accompanied by a worksheet that will push students to critically think on key terms throughout the reading along with basic note taking. This reading will be assessed through warm-ups, quizzes, and tests.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Specific to this course is a form of writing assignment called the Document-Based Question, or DBQ, designed to train and evaluate your ability to form historical arguments based on analysis and interpretation of a variety of primary source materials, including written, graphic, and artistic. To prepare you for this unique aspect of the AP exam, you will do at least one DBQ in each of the course's units. These essays will be given during class and timed. First semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

All students must read chapters 1-4 of the primary text and take notes. A test will be given the first week of school. Students must also read *The American Revolution: A History* – Gordon Wood.

## Honors United States Government and Politics

**1 Credit****Prerequisite:**

United States History

**Purpose:**

Government in the fullest sense is the way a people organize their common life to make it a better life. In the United States, the fullest expression of government is the self-governing of the American people. Preserving self-government requires clear-sighted attention to our fundamental principles. These principles are found in the primary documents of our history. We aim to understand those documents as their authors did. This implies that we can escape our own time and understand something from another time. This is a semester-long college course designed to familiarize the student with the basic structure of American government and the Constitution of the United States, and the interrelationships among the three branches of national government - the Executive, Legislative, and Judicial branches - and the other major players on the national scene - the media, political parties, interest groups and public opinion.

The course will cover the following six topic areas: Constitutional Underpinnings of United States Government; Political Beliefs and Political Behaviors; Political Parties, Interest Groups, and Mass Media; Institutions of National Government; Public Policy; and Civil Rights and Civil Liberties.

**Textbook:**

- Edwards, George C. III, Martin P. Wattenberg, and Robert L. Lineberry. *Government in America: People, Politics, and Policy*, 14th ed. New York: Longman, 2009.
- Woll, Peter. *American Government: Readings and Cases*, 18th ed. New York: Longman, 2010.

- Johnson, Jeffrey Alan, *AP Government and Politics United States to accompany Government in America*. New York: Longman, 2009.
- Serow, Ann G. and Everett C. Ladd. *The Lanahan Readings in the American Polity*, 14<sup>th</sup> ed. Baltimore: Lanahan, 2007.
- Lasser, William, *Perspectives on American Politics*, 5<sup>th</sup> ed. New York: Houghton Mifflin Company, 2008.

**Classwork:**

Students will complete a warm-up activity over the previous day’s lesson or homework at the start of each class. They will then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key past or present political ideas and student must formulate their own opinions on current issues within the United States government.

**Homework:**

Nightly reading will provide content for the next day’s lesson as well as discussion of more in-depth primary sources. Each reading will be accompanied by a worksheet that will push students to critically think on key terms throughout the reading along with basic note taking. This reading will be assessed through warm-ups, quizzes, and tests.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Each student will research a current event topic of their choosing to present an 8-10-minute presentation to the class detailing the event, issue, or person and how they impacted the U.S. Each student will also research a court case significant to U.S. history and write a 2-3-page paper as well as present an 8-10-minute speech to the class on the court case and why it was significant to the United States. The semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

*The Federalist Papers (Federalist 10, Federalist 48, Federalist 51, Federalist 78)* – John Jay, Alexander Hamilton, and James Madison.

[AP United States Government and Politics](#)

**1 Credit**

**Prerequisite:**

Completion of Honors United States History with a B or higher

**Purpose:**

Government in the fullest sense is the way a people organize their common life to make it a better life. In the United States, the fullest expression of government is the self-governing of the American people. Preserving self-government requires clear-sighted attention to our fundamental principles. These principles are found in the primary documents of our

history. We aim to understand those documents as their authors did. This implies that we can escape our own time and understand something from another time.

The goal of this AP course is, quite simply, to enable each student to do well on the AP exam, that is achieve a score of 4 or 5. A greater, long-term goal of this AP course is to make each student a good, informed citizen. To accomplish this goal, this is a semester-long college course designed to familiarize the student with the basic structure of American government and the Constitution of the United States, and the interrelationships among the three branches of national government - the Executive, Legislative, and Judicial branches - and the other major players on the national scene - the media, political parties, interest groups and public opinion.

The course will cover the following six topic areas: Constitutional Underpinnings of United States Government; Political Beliefs and Political Behaviors; Political Parties, Interest Groups, and Mass Media; Institutions of National Government; Public Policy; and Civil Rights and Civil Liberties.

**Textbook:**

- **Primary texts:**

- Edwards, George C. III, Martin P. Wattenberg, and Robert L. Lineberry. *Government in America: People, Politics, and Policy*, 14th ed. New York: Longman, 2009.
- Woll, Peter. *American Government: Readings and Cases*, 18th ed. New York: Longman, 2010.
- Johnson, Jeffrey Alan, *AP Government and Politics United States to accompany Government in America*. New York: Longman, 2009.
- Serow, Ann G. and Everett C. Ladd. *The Lanahan Readings in the American Polity*, 14<sup>th</sup> ed. Baltimore: Lanahan, 2007.
- Lasser, William, *Perspectives on American Politics*, 5<sup>th</sup> ed. New York: Houghton Mifflin Company, 2008.

- **Other materials:**

- Articles from current newspapers, such as the *New York Times* or the *Wall Street Journal*
- News magazine excerpts from *Time*, *Newsweek*, or the *Economist*
- News footage and documentaries
- C-SPAN's coverage and current events materials
- Numerous websites

**Classwork:**

Students will complete a warm-up activity over the previous day's lesson or homework at the start of each class. Then follow along through guided interactive lecture and notes. Some days will require student participation while discussing key past or present political ideas and

student must formulate their own opinions on current issues within the United States government.

**Homework:**

Nightly reading will provide content for the next day's lesson as well as discussion of more in-depth primary sources. Each reading will be accompanied by a worksheet that will push students to critically think on key terms throughout the reading along with basic note taking. This reading will be assessed through warm-ups, quizzes, and tests.

**Tests/Projects/Exams:**

Each unit will end with a unit test assessing knowledge through fill in the blank, multiple choice, timeline, and short essay questions. Each student will research a current event topic of their choosing to present an 8-10-minute presentation to the class detailing the event, issue, or person and how they impacted the U.S. Each student will also research a court case significant to U.S. history and write a 2-3-page paper as well as present an 8-10-minute speech to the class on the court case and why it was significant to the United States. The semester will finish with a two-hour exam assessing all information covered during the semester.

**Summer Reading:**

All students must read Chapters 1-3 of *Government in America* and *The Federalist Papers 10, 48, 51, 78* and complete the corresponding study guide questions and quizzes. They will be due the second day of class.

[Honors Microeconomics](#)

**1 Credit**

**Prerequisite:**

Requires a B or better in Honors U.S. History and Department Chair approval.

**Purpose:**

The purpose of this course is to not only introduce students to the tools to understand society and the creation of wealth, but also to ground Vanguard students in the historical tradition of economics. Students master basic supply and demand theory and analysis as it applies to individual markets and then learn about non-competitive equilibria such as monopoly. The course emphasizes the role of free markets in determining economic well-being and wealth creation, as well as the appropriate role of government.

**Textbook:**

Alongside the texts below, students read selections from the collective works of Frederic Bastiat.

- *Murder at the Margin* – Stanley Jevons
- *Principles of Economics* – N. Gregory Mankiw (5<sup>th</sup> edition)

**Classwork:**

Class is largely lecture, with tests and quizzes occurring every two to three weeks.

**Homework:**

Homework (including answering questions, textbook problems, readings, and articles) is due approximately twice a week. Students are expected to follow directions carefully with each specific type of assignment they are given.

**Tests/Projects/Exams:**

Unit tests and a final examination are given each semester.

**Summer Reading:**

*The Law* – Frederic Bastiat

**[AP Economics: Micro](#)****1 Credit****Prerequisite:**

Completion of Honors United States History with a B or higher and Department Chair approval

**Purpose:**

The purpose of this course is not only to introduce students with the tools to understand society and the creation of wealth, but also to ground Vanguard School students in the historical tradition of economics. Students master basic supply and demand theory and analysis as it applies to individual markets and then learn about non-competitive equilibria such as monopoly. The course emphasizes the role of free markets in determining economic well-being and wealth creation, as well as the appropriate role of government.

**Textbook:**

- Mankiw, N. Gregory. *Principles of Economics*, 5th ed. Mason, OH: Thompson South-Western, 2008
- Bastiat, Frederic. *The Economics of Freedom: What your Professors Won't Tell You*, Ottawa, IL: Jameson Books, 2010.

**Classwork:**

Class is largely lecture, with tests and quizzes occurring every two to three weeks.

**Homework:**

A typical homework assignment consists of 6-8 pages of reading, 8-10 problems, *or* several short essays, including graphical analysis (estimated total time of 20-30 min daily outside of class). Homework assignments will be posted on infinite campus at the beginning of each week.

**Tests/Projects/Exams:**

Unit tests and a final examination are given each semester.



**Summer Reading:**

*The Law* – Frederic Bastiat

## *History Department Electives*

### AP Human Geography

#### **2 Credits**

#### **Purpose:**

The purpose of AP Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

#### **Textbook:**

- de Blij, H. J., Alexander B. Murphy, and Erin H. Foubert. *Human Geography: People, Place, and Culture*. 9<sup>th</sup> ed. New York: John Wiley, 2009.
- Kuby, Michael, John Harner, and Patricia Gober. *Human Geography in Action*. 5<sup>th</sup> ed. New York: John Wiley, 2010.
- Swanson, Kelly. *AP Human Geography*, 2012. New York: Kaplan, 2012.

The Wiley student and instructor companion websites for *Human Geography* and *Human Geography in Action* are used in conjunction with the primary texts.

#### **Classwork:**

Students will follow along through interactive lecture and notes. Students will be expected to participate in all discussions regarding key concepts, political ideology, and current events from around the globe.

#### **Homework:**

Nightly reading with note taking will provide content for the next day's lesson as well as discussion regarding current events from around the globe. Students will complete multiple case studies as homework during each unit which will utilize tools of geographers and spatial concepts.

#### **Tests/Projects/Exams:**

Each unit will end with a test assessing knowledge through AP format multiple choice questions and free response questions which will assess both classroom and home reading information. First semester will end with a two-hour exam assessing all information covered during the semester in a full-practice AP exam format.

#### **Summer Reading:**

*The Lexus and the Olive Tree* — Thomas Friedman

### Comparative Religion

#### **1 Credit**

**Purpose:**

This class will be a survey of the five major world religions (Christianity, Judaism, Islam, Buddhism, Hinduism), including their history, beliefs, and practices. Other ways to live, such as Confucianism and Taoism, will be covered if time permits.

**Textbook:**

Students will read a number of sacred texts, primary, and secondary sources.

**Classwork:**

Students will follow along through interactive lecture and notes. Students will be expected to participate in all discussions.

**Homework:**

Nightly reading with note taking will provide content for the next day's lesson.

**Tests/Projects/Exams:**

Each unit will end with a test. There will be no exam for this class.

## *Language Department*

### German I

#### **2 Credits**

#### **Purpose:**

Students will learn beginning German vocabulary and grammar to develop skills in speaking, listening comprehension, reading comprehension, and composition. Emphasis will be placed on present tense verbs. Additionally, students will explore numerous topics in the history, literature, and culture of German-speaking countries.

#### **Textbook:**

Students work with *Geni@I klick: German Textbook Level 1* and the corresponding *Geni@I klick: German Workbook Level 1*, published by Langenscheidt, a leading German textbook publisher.

#### **Classwork:**

New vocabulary and/or grammar material will be presented daily, followed by practice activities in speaking, reading, listening, and writing. Lessons will focus especially on student interaction and the development of communication skills in German. Classes will be conducted in German as much as possible.

#### **Homework:**

Homework assignments will closely reflect the vocabulary and grammar topics presented in class to provide students the opportunity to practice those skills, particularly in reading comprehension and composition. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

#### **Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete one project each semester focusing on a particular aspect of German culture and history and culminating in a brief presentation. Students will take a cumulative exam both semesters. German I students will also be invited to take the Level I National German Exam.

### German II

#### **2 Credits**

#### **Prerequisite:**

German I

#### **Purpose:**

German II builds on the skills acquired in German I and adds more complex grammatical forms,

including past tense verbs, while continuing the emphasis on listening, speaking, reading, and writing. Students will continue to explore the culture, history, literature, and traditions of the German-speaking world.

**Textbook:**

Students work with *Geni@I klick: German Textbook Level 2* and the corresponding *Geni@I klick: German Workbook Level 2*. Both are published by Langenscheidt, a leading German textbook publisher. In addition, students read their first German book, *Café in Berlin*, a collection of short stories by Andre Klein (LearnOutLive).

**Classwork:**

New vocabulary and/or grammar material will be presented daily, followed by practice activities in speaking, reading, listening, and writing. Lessons will focus especially on student interaction and the development of communication skills in German. Classes will be conducted in German as much as possible.

**Homework:**

Homework assignments will closely reflect the vocabulary and grammar topics presented in class to provide students the opportunity to practice those skills, particularly in reading comprehension and composition. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete one project each semester focusing on a particular aspect of German culture and history and culminating in a brief presentation. Students will take a cumulative exam both semesters. German II students will also be invited to take the Level II National German Exam.

**Summer Reading:**

Students will complete a summer review packet of German I material to prepare for German II. Students can expect to spend 2-3 hours completing this packet.

[German III](#)

**2 Credits**

**Prerequisite:**

German II

**Purpose:**

German III builds upon the first two years of German. Students are further acquainted with German grammar and vocabulary while continuing to develop communicative abilities through

reading, writing, translating, speaking, and listening activities. Students continue to learn about culture, history, and traditions of the German-speaking world.

**Textbook:**

Students work with *Geni@I klick: German Textbook B1* and the corresponding *Geni@I klick 1: German Workbook B1*. Both are published by Langenscheidt, a leading German textbook publisher. Students also read their first German novel: *Das Paradies liegt in Amerika: Eine Auswanderergeschichte* by Karin Gündisch (Beltz & Gelberg).

**Classwork:**

New vocabulary and/or grammar material will be presented daily, followed by practice activities in speaking, reading, listening, and writing. German III will be conducted almost entirely in German, and lessons will focus especially on student interaction and the development of strong communication skills.

**Homework:**

Homework assignments will closely reflect the vocabulary and grammar topics presented in class to provide students the opportunity to practice those skills, particularly in reading comprehension and composition. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete one project each semester focusing on a particular aspect of German culture and history and culminating in a brief presentation. Students will take a cumulative exam both semesters. German III students will also be invited to take the Level III National German Exam.

**Summer Reading:**

Students will complete a summer review packet of German I and II material to prepare for German III. Students can expect to spend 2-3 hours completing this packet.

[German IV](#)

**2 credits**

**Prerequisite:**

German III

**Purpose:**

German IV builds upon the previous three years of German. Students are further acquainted with German grammar and vocabulary while continuing to develop communicative abilities through reading, writing, translating, speaking, and listening activities. Students continue to learn about culture, history, and traditions of the German-speaking world.

**Textbook:**

Students will continue to work with the *Geni@l klick* German textbook series published by Langenscheidt, a leading German textbook publisher. Students will also continue to develop their reading skills through a variety of German literature provided in class.

**Classwork:**

New vocabulary and/or grammar material will be presented frequently, followed by practice activities in speaking, reading, listening, and writing. German IV will be conducted almost entirely in German, and lessons will focus especially on student interaction and the development of strong communication skills.

**Homework:**

Homework assignments will closely reflect the vocabulary and grammar topics presented in class to provide students the opportunity to practice those skills, particularly in reading comprehension and composition. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15–20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete one project each semester focusing on a particular aspect of German culture and history and culminating in a brief presentation. Students will take a cumulative exam both semesters. German IV students will also be invited to take the Level IV National German Exam.

**Summer Reading:**

Students will complete a summer review packet of German I-III material to prepare for German IV. Students can expect to spend 2-3 hours completing this packet.

**[Latin I](#)****2 Credits*****REQUIRED FOR GRADUATION*****Purpose:**

Studying Latin sharpens students' skills in memorization and critical and logical thinking, expands students' understanding of the origins and workings of many languages, and serves as a gateway to the study of the culture and civilization of ancient Rome, the precepts, and ideas of which form the foundation of Western civilization. In Latin I, students will master beginning Latin vocabulary, grammar, and syntax while developing foundational translation skills through a study of textbook Latin excerpts adapted from Roman sources. Students will also explore topics in the history, literature, culture, and geography of ancient Rome.

**Textbook:**

*Latin for the New Millennium, Level I* (Bolchazy-Carducci Publishers)

**Classwork:**

New vocabulary and grammar material will be presented daily, followed by practice exercises in reading and writing. Students will apply all accumulated vocabulary and grammar knowledge to adapted textbook Latin readings. Classwork will often include translation preparatory exercises, guided translation practice, and student group work on translations. Quizzes will be given frequently to ensure continual progress, particularly regarding memorized material such as vocabulary and word endings.

**Homework:**

Daily assignments will closely reflect the vocabulary and grammar material presented in class to provide students the opportunity to practice those skills. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily.

**Tests/Projects/Exams:**

A test will follow each chapter and unit, focusing on new and review vocabulary and grammar and including translation exercises of both seen and unseen passages. Students will complete the second semester Classical Mythology project in which they will research at least three classical gods and goddesses of their choosing and present their research in an engaging, original, and creative manner in groups. Both semesters conclude with a semester exam. High-performing Latin I students will also be invited to take the Level I National Latin Exam.

## Latin II

**2 Credits****Prerequisite:**

Latin I

**Purpose:**

Students in Latin II will continue the textbook study of beginning and intermediate Latin vocabulary, grammar, and syntax begun in Latin I. An increasing emphasis will be placed on developing strong intermediate translation skills through the textbook readings adapted from original Roman sources. Readings will become lengthier and more complex throughout the year. Students will additionally continue to explore the history, literature, culture, and geography of ancient Rome, while also exploring the continued use and development of Latin in the Middle Ages and the Renaissance.

**Textbook:**

*Latin for the New Millennium, Level I and II* (Bolchazy-Carducci Publishers)



**Classwork:**

New vocabulary and grammar material will be presented daily, followed by practice exercises in reading and writing. Students will apply all accumulated vocabulary and grammar knowledge to adapted readings of increasing length and difficulty. Classwork will often include translation preparatory exercises, guided translation practice, and student group work on translations. Quizzes will be given frequently to ensure continual progress, particularly regarding memorized material such as vocabulary and word endings.

**Homework:**

Daily assignments will closely reflect the vocabulary and grammar material presented in class to provide students the opportunity to practice those skills. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily.

**Tests/Projects/Exams:**

A test will follow each chapter and unit, focusing on new and review vocabulary and grammar and including translation exercises of both seen and unseen passages. Students will complete the second semester Roman Architecture project in which they will research an ancient Roman structure type - amphitheater, forum, temple, bath, etc. - and present their research in an engaging, original, and creative manner in groups.

Both semesters conclude with a semester exam. Students will also be invited to take the Level II National Latin Exam.

**Summer Reading:**

Students will complete a summer review packet of Latin I material to begin Latin II prepared to succeed. This packet will be provided in the spring semester and will take 2-3 hours to complete.

**Latin III****2 Credits****Prerequisite:**

Latin II

**Purpose:**

Latin III serves as a transition year between the textbook-based study of Latin I and II and the unadapted Latin readings of Latin IV and beyond. Upon completing the textbook study of Latin grammar, vocabulary, and syntax, students will read the story of *Jason and the Argonauts* in adapted Latin through the *Fabulae Graecae* text to develop reading fluency and confidence. Supplementary grammar topics will be presented when relevant to the readings. Students will continue to study the history, literature, culture, and geography of ancient Rome, as well as the continued use of Latin in the Middle Ages and Renaissance.

**Textbook:**

The students work with *Latin for the New Millennium, Level II* (Bolchazy-Carducci Publishers) and the adapted Latin text of “Jason and the Argonauts” from the *Fabulae Graecae* (ed. Lawall, Iverson, and Wooley; Longman Publishing Group) supplemented by the *Fabulae Graecae Companion Curriculum* (Dr. Melissa Schons Bishop; Creative Classical Curriculum).

**Classwork:**

New vocabulary and grammar material will be presented frequently, followed by practice exercises in reading and writing. Students will apply all previous vocabulary and grammar knowledge to adapted readings of increasing length and difficulty. Classwork will frequently include translation preparatory exercises, guided translation practice, and student group work on translations. Quizzes will be given frequently to ensure continual progress, particularly regarding memorized material such as vocabulary and word endings.

**Homework:**

Daily assignments will closely reflect the new vocabulary and grammar material presented in class to provide students the opportunity to practice those skills. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Additionally, Latin III assignments will emphasize translation preparation and translation practice to build the fundamental skills needed for translating upper-level Latin. Students can expect 15- 20 minutes of homework daily.

**Tests/Projects/Exams:**

A test will follow each chapter and unit, focusing on new and review vocabulary and grammar and including translation exercises of both seen and unseen passages. Students will complete two second semester projects: the Roman Daily Life project, in which students will research and teach a lesson on a topic of Roman civilization of their choosing; and the Roman Food project, in which students will prepare an ancient Roman dish according to the original recipe (primarily from Apicius’ *De re coquinaria*) and which concludes with an in-class banquet. Both semesters conclude with a semester exam. Students will also be invited to take the Level III National Latin Exam.

**Summer Reading:**

Students can expect a summer review packet of Latin I and II material to begin Latin III prepared to succeed. This packet will be provided the previous spring and will take 2-3 hours to complete.

**Latin IV****2 Credits**

**Please note:**

Latin IV may be taken as a dual-enrollment course with UCCS through the CU-Succeeds program.

**Prerequisite:**

Latin III

**Purpose:**

Latin IV is a reading-intensive course in which students apply all earlier knowledge of Latin vocabulary and grammar to unadapted readings in Latin prose and poetry. New grammar topics will be introduced when relevant to ensure continual progress in mastering advanced Latin concepts. Students will study the authors and historical context of the texts read and will be introduced to the common figures of speech and rhetorical devices used by authors such as Vergil and Cicero. Students will be prepared to succeed in lower level collegiate Latin courses upon successful completion of Latin IV.

**Textbook:**

Students will utilize the *Legamus Transitional Reader Series* (Bolchazy-Carducci Publishers) to study excerpts of Caesar, Livy, Cicero, and Vergil. All students will be issued *The New College Latin & English Dictionary* by John Traupman (Bantam).

**Classwork:**

Lessons will focus on developing students' translation skills through translation preparation exercises, guided translations, and student translation practice. New grammar topics will be introduced when relevant to the texts studied, and practice grammar exercises in class will aid in student mastery of new material and in reinforcement of review topics. Quizzes will be given frequently to ensure continual progress, particularly in developing vocabulary and strengthening grammar and syntax concepts.

**Homework:**

Homework assignments provide an opportunity for students to practice the skills learned in class. Assignments will emphasize reinforcement of review grammar and vocabulary concepts as well as preparatory exercises for in-class translations. Additionally, homework assignments will frequently include polishing literary translations of in-class literal versions, developing fluidity of student translations. Students can expect 15-20 minutes of homework daily.

**Tests/Projects/Exams:**

Tests will be given after each unit within the authors studied, focusing on translation exercises, key grammar review topics, new and review vocabulary, literary devices, and historical context of the text. Students will take an exam after first semester. Throughout second semester, students will work on a 60-line independent translation project from the works of Vergil, Cicero, Livy, or Caesar, culminating in a final in-class presentation. This project will take the place of the second semester exam. Students will also be invited to take the Level IV National Latin Exam.

**Summer Reading:**

Students can expect a summer review packet of Latin I-III material to begin Latin IV prepared to succeed. This packet will be provided the previous spring and will take 2-3 hours to complete.

**Latin V****2 Credits****Please note:**

Latin V may be taken as a dual-enrollment course with UCCS through the CU-Succeeds program.

**Prerequisite:**

Latin IV

**Purpose:**

Latin V is a reading-intensive course in which students apply all earlier knowledge of Latin vocabulary and grammar to unadapted readings in Latin prose and poetry. New grammar topics will be introduced when relevant to ensure continual progress in mastering advanced Latin concepts. Students will continue to study the authors and historical contexts of ancient Roman texts and will in addition explore the continued use of Latin in the Middle Ages. Emphasis will be placed on developing prose composition skills throughout the year. Students will be prepared to succeed in lower level collegiate Latin courses upon successful completion of Latin V.

**Textbook:**

Students will utilize the *Legamus Transitional Reader Series* (Bolchazy-Carducci Publishers) to study excerpts of Ovid, Pliny, Seneca, *et al.* Additional texts will be provided in class covering a variety of patristic and medieval authors. All students will be issued *The New College Latin & English Dictionary* by John Traupman (Bantam).

**Classwork:**

Lessons will focus on reading unadapted Latin texts while incorporating exercises to introduce new or review previous grammar concepts, vocabulary, and literary devices. Emphasis will be placed on strengthening prose composition skills through guided practice in class. Quizzes will be given frequently to ensure constant progress, particularly in developing vocabulary and strengthening grammar and syntax concepts.

**Homework:**

Homework assignments provide an opportunity for students to practice the skills learned in class. Assignments will emphasize reinforcement of review grammar and vocabulary concepts as well as preparatory exercises for in-class translations and practice composition exercises. Students can expect 15- 20 minutes of homework daily.

**Tests/Projects/Exams:**

Tests will be given after each unit within the authors studied, focusing on translation exercises,

key grammar review topics, new and review vocabulary, literary devices, and historical context of the texts. Students will take an exam after first semester. Throughout second semester, students will work on a poetry portfolio comprising their translations of major Roman poets and their own Latin poetry compositions emulating Roman poetic styles and themes. This project will take the place of the second semester exam.

**Summer Reading:**

Students can expect a summer review packet of Latin I-IV material to begin Latin V prepared to succeed. This packet will be provided the previous spring and will take 2-3 hours to complete.

[Spanish I](#)

**2 Credits**

**Purpose:**

Students will learn beginning Spanish vocabulary and grammar and will develop skills in listening, speaking, reading, and writing. Additionally, students will explore numerous topics in the history, literature, and culture of Spanish-speaking countries. Students who have successfully completed Spanish I will be prepared to continue with Spanish II.

**Textbook:**

*Descubre Level I* (Vista Higher Learning)

**Classwork:**

New vocabulary and/or grammar material will be presented daily, followed by practice activities in speaking, reading, listening, and writing. Lessons will be conducted in Spanish when possible and will focus especially on student interaction and the development of strong communication skills.

**Homework:**

Homework assignments provide an opportunity for students to practice the skills learned in class. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete several small-scale projects focusing on particular aspects of Spanish language and culture. Students will take a cumulative exam both semesters. Spanish I students will also be invited to take the Level I National Spanish Exam.

[Spanish II](#)

**2 Credits**

**Prerequisite:**

Spanish I

**Purpose:**

Students will build their knowledge of intermediate Spanish vocabulary and grammar while continuing to develop skills in listening, speaking, reading, and writing. Additionally, students will continue to explore numerous topics in the history, literature, and culture of Spanish-speaking countries. Students who have successfully completed Spanish II will be prepared to continue with Spanish III.

**Textbook:**

*Descubre Level II* (Vista Higher Learning)

**Classwork:**

New vocabulary and/or grammar material will be presented on a daily basis, followed by practice activities in speaking, reading, listening, and writing. Lessons will be conducted increasingly in Spanish and will focus on student interaction and the development of strong communication skills.

**Homework:**

Homework assignments provide an opportunity for students to practice the skills learned in class. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete several small-scale projects focusing on particular aspects of Spanish language and culture. Students will take a cumulative exam both semesters. Spanish II students will also be invited to take the Level II National Spanish Exam.

**Summer Reading:**

Students will complete a summer review packet of Spanish I material to prepare for Spanish II. Students can expect to spend 2- 3 hours completing this packet.

## Spanish III

**2 Credits****Prerequisite:**

Spanish II

**Purpose:**

Spanish III builds upon the first two years of Spanish. Students are further acquainted with Spanish grammar and vocabulary while continuing to develop communicative abilities through

reading, writing, translating, speaking, and listening activities. Students continue to learn about culture, history, and traditions of the Spanish-speaking world.

**Textbook:**

*Descubre Level III* (Vista Higher Learning), with additional excerpts from Spanish authors provided in class

**Classwork:**

New vocabulary and/or grammar material will be presented on a daily basis, followed by practice activities in speaking, reading, listening, and writing. Lessons will be conducted almost entirely in Spanish and will focus on student interaction and the development of strong communication skills.

**Homework:**

Homework assignments provide an opportunity for students to practice the skills learned in class. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. Students will complete several small-scale projects focusing on particular aspects of Spanish language and culture. Students will take a cumulative exam both semesters. Spanish III students will also be invited to take the Level III National Spanish Exam.

**Summer Reading:**

Students will complete a summer review packet of Spanish I and II material to prepare for Spanish III. Students can expect to spend 2-3 hours completing this packet.

[Spanish IV](#)

**2 credits**

**Prerequisite:**

Spanish III

**Purpose:**

Spanish IV builds upon the previous three years of Spanish. Students are further acquainted with Spanish grammar and vocabulary while continuing to develop communicative abilities through reading, writing, translating, speaking, and listening activities. Students continue to learn about culture, history, and traditions of the Spanish-speaking world.

**Textbook:**

*Descubre Level III* (Vista Higher Learning), with considerable additional excerpts and readings from Spanish authors provided in class

**Classwork:**

New vocabulary and/or grammar material will be presented on a daily basis, followed by practice activities in speaking, reading, listening, and writing. Lessons will be conducted almost entirely in Spanish and will focus on student interaction and the development of strong communication skills.

**Homework:**

Homework assignments provide an opportunity for students to practice the skills learned in class. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15-20 minutes of homework daily. Homework will frequently be corrected during class.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar, reading, and listening comprehension exercises, and composition activities. The Spanish students will also complete a project focusing on a Spanish historical or cultural topic to be determined, with an emphasis on presentation in Spanish. Students will take a cumulative exam both semesters. Spanish IV students will also be invited to take the Level IV National Spanish Exam.

**Summer Reading:**

Students will complete a summer review packet of Spanish I-III material to prepare for Spanish IV. Students can expect to spend 2-3 hours completing this packet.



## *Language Department Electives*

### Introduction to Greek

**2 credits**

**Prerequisite:**

Latin I

**Purpose:**

Ancient Greek was the language of many of the writers, creators, and thinkers most foundational to Western civilization. In this year-long elective, students will acquire an introductory knowledge of ancient Greek vocabulary, grammar, and syntax and will apply that knowledge to brief, adapted translations of ancient Greek authors. Students will also learn relevant cultural and historical information about ancient Greece, supplementing their knowledge from Classical History.

**Textbook:**

*An Introduction to Ancient Greek: A Literary Approach* by C.A.E. Luschnig (Hackett Publishing Company, Inc.).

**Classwork:**

New vocabulary and/or grammar material will be presented on a daily basis, followed by practice exercises in grammar and translation. Given the inherently cumulative nature of language study, practice exercises will frequently and intentionally reflect review topics in order to maintain students' understanding of earlier topics while adding new concepts. Frequent quizzes will be given to ensure continual progress, particularly in memorizing vocabulary and word endings.

**Homework:**

Homework assignments provide an opportunity for students to practice the grammar and vocabulary skills learned in class. As language study is inherently cumulative, the homework assignments are essential to practicing new material while maintaining all previous lessons. Students can expect 15 – 20 minutes of homework 2 – 3 nights a week.

**Tests/Projects/Exams:**

A test will follow each chapter, focusing on new and review grammar and vocabulary as well as on translation exercises of both seen and unseen readings. In the second semester, the students will complete an etymology project intended to enhance their understanding and appreciation of ancient Greek words by creating new English words derived from Greek. A cumulative exam follows both semesters in this course. Students will also be invited to take the National Greek Exam.

## *Mathematics Department*

### Algebra I

#### **2 Credits**

#### **Prerequisite:**

Course 3 or the Course 3 placement test.

#### **Purpose:**

This course covers the standard topics of algebra. Early in this course, students develop fluency in signed number operation and its application with order of operations. Rules for integer exponents and scientific notation are developed throughout this course. Also, students master identifying and solving word problems, solving systems of equations, simplifying rational expressions, and graphing linear equations.

#### **Textbook:**

Saxon Algebra I, 4th ed. Orlando, FL, HMH Supplemental Publishers, Inc., 2009.

#### **Classwork:**

Each lesson has a set of 25 practice problems which are cumulative. At least 20 minutes of class should be used for working problems for lesson. In addition, Investigations and Labs are assigned every 10 lessons.

#### **Homework:**

Students will be responsible for completing the remainder of the problem set for lesson or investigation. A vocabulary review sheet will often precede tests and count as a homework grade. Test corrections will be required after each test and count as a homework grade.

#### **Tests/Projects/Exams:**

Cumulative tests are given after every 5 lessons and there is at least a 5-lesson buffer from learning to testing. The first test is after Lesson 10 and contains problems from Lessons 1-5. There are no projects in this course, and the exam at the end of each semester is cumulative.

### Algebra II

#### **2 Credits**

#### **Prerequisite:**

Algebra I (and pass placement test, if transferring; this class is typically taken after Geometry for on-grade level students)

#### **Purpose:**

This course is designed to complete the automation of the fundamentals of algebra. In addition to the basic topics of algebra, systems of two linear equations with two unknowns, systems of three linear equations with three unknowns, and systems of non-linear equations are emphasized. Area, volume, and unit conversions are further developed from the Algebra I

course. Right triangle geometry, conversions from rectangular to polar form, matrices, the unit circle, and computations with vectors are also taught. Students become fluent with complex numbers, completing the square and deriving the quadratic formula.

**Textbooks or author overview:**

Saxon Algebra II, 4th ed. Orlando, FL, HMH Supplemental Publishers, Inc., 2009.

**Classwork:**

Each lesson has a set of 25 practice problems which are cumulative. At least 20 minutes of class should be used for working problems for lesson. In addition, Investigations and Labs are given every 10 lessons.

**Homework:**

Students are responsible for completing the remainder of problem set for lesson or investigation as their homework. Students will be given answers to odd problems for self-check during homework. Test corrections will be required after each test and count as a homework grade.

**Tests/Projects/Exams:**

Cumulative tests are given after every 5 lessons and there is at least a 5-lesson buffer from learning to testing. The first test is after Lesson 10 and contains problems from Lessons 1-5. There are no projects in this course, and the exam at the end of each semester is cumulative.

[Honors Geometry](#)

**2 Credits**

**Prerequisite:**

Algebra I (this class is typically taken after Algebra II for above grade-level students)

**Purpose:**

This course is built on formal proof-based reasoning and Euclidean geometry. The course covers the nature of deductive reasoning with conditional statements used in direct and indirect proofs. Definitions and postulates are introduced, and theorems are developed from these Euclidean statements. Lines and angles, triangle congruency, inequalities, quadrilaterals, similarity, circles, and polygon theorems are developed and emphasized throughout this course.

**Textbook:**

- Jacobs, Harold R. Jr. *Geometry: Seeing, Doing, Understanding*, Third ed. New York City, NY: W.H. Freeman and Company, 2003.  
Abbott, Edwin A. *Flatland, A Romance of Many Dimensions*, 1884. –read during second semester

**Classwork:**

30-40 problems will be assigned from each lesson and at least 20 minutes will be given in class to work.

**Homework:**

Complete the 30-40 problems. Read the lesson for the next day.

During second semester, reading from *Flatland* will be assigned.

**Tests/Projects/Exams:**

Tests follow each chapter. Quizzes are given at the end of most chapters and are about topics from chapter and the reading from the night before. During semester 2 pop-quizzes are given on Flatland reading.

Quarter 1 project: Golf project using *angle of incidence = angle of reflection*

Quarter 2 project: Create a piece that will tessellate and make a tessellation.

## Advanced Math

**2 Credits****Prerequisite:**

Algebra II (and pass placement test, if transferring)

This class is typically taken after Algebra II (this class may be skipped if the student received a B or higher in Algebra II *and* Honors Geometry with Department Chair approval).

**Purpose:**

This course continues development of Algebra II concepts and also introduces the first half of topics normally covered in trigonometry and plane geometry courses. Permutations, combinations, angular velocity, complex roots, conic sections, abstract rate problems, matrices, determinants, and sinusoids are some of the topics covered.

**Textbook:**

Saxon, John H. Jr. Advanced Math: An Incremental Development, 3rd ed. Oklahoma City, OK: Saxon Publishers, Inc., 2003.

**Classwork:**

Each lesson has a set of 30 practice problems which are cumulative. At least 20 minutes of class should be used for working problems for lesson. This class covers 2 lessons in 3 days and covers Lessons 1-80.

**Homework:**

The remainder of the problem set for each lesson is assigned to students as homework every evening.

**Tests/Projects/Exams:**

Cumulative tests are given after every 4 lessons and there is at least a 4-lesson buffer from learning to testing. The first test is after Lesson 8 and contains problems from Lessons 1-4. There are no projects, and each semester exam is cumulative.

## Honors Precalculus

**2 Credits****Prerequisite:**

Algebra II (and pass placement test, if transferring).

Achieve a B or better in Algebra II and Honors Geometry *or* pass Advanced Math. This class is typically taken after Advanced Math but may be taken in lieu of Advanced Math with Department Chair approval.

**Purpose:**

The Precalculus Course is designed for students who want to be better prepared for college Calculus or AP courses while still in high school. The topics covered include functions (polynomials, rational, exponential, and logarithmic), a deep look into trigonometry and trigonometric identities, matrices, sequences and series, analytic geometry, the three-dimensional coordinate system, and an introduction to limits and calculus.

**Textbook:**

Larson, Ron. Precalculus with Limits: A Graphing Approach, 7th ed. Boston, MA: Cengage Learning, 2016.

**Classwork:**

Each section is covered in 1 or 2 days. A selection of problems is chosen from the section's exercises and assigned for homework.

**Homework:**

There is an assignment given for every lesson (assigned every 1-2 days). Students will have the remainder of class time (typically about 10-15 minutes) to begin the homework, and complete it that evening.

**Tests/Projects/Exams:**

Every 2 lessons, a quiz is given covering the content of the lessons. A test is given at the end of every chapter. Each semester exam is cumulative of that semester.

## AP Calculus AB

**2 Credits****Prerequisite:**

Completion of Pre-calculus with a B or higher or Department Chair approval

Juniors with B- or lower in Precalculus will take this course as Calculus AB, no grade weighting, and without AP exam. Final exam will be required.

**Purpose:**

The goal of AP Calculus AB is mastery of calculus topics A and B, which are equivalent to college Calculus I. Students extend their knowledge and skills of trigonometry. In this course, limits, area under the curve, slopes, derivatives, and rates of change are introduced. Practice AP problems are given to prepare students for the AP exam which is required at the end of the course.

**Textbook:**

*Calculus — Concepts and Applications*. 2nd edition, by Paul A. Foerster. Key Curriculum Press, Emeryville, California. ©2005.

**Classwork:**

Each lesson has a set of 10-15 practice problems based on the lesson content. Some lessons include additional problems that review previous concepts. Investigations of key ideas or procedures are conducted periodically.

**Homework:**

Students must complete the assigned problems for lesson or investigation as their homework assignment. Test corrections will be required after each test and count as a homework grade.

**Tests/Projects/Exams:**

Tests are given after every unit. Quizzes are given two to three times per unit. There are no projects in this course and taking the AP Exam fulfills the final exam requirement.

## [AP Calculus BC](#)

**2 Credits****Prerequisite:**

AP Calculus AB with B or higher *or* Honors Calculus AB with an A and/or Department Chair approval.

**Purpose:**

The goal of AP Calculus BC is mastery of calculus topics A, B, and C, which are equivalent to college Calculus I and II. According to the College Board, Calculus AB and BC “emphasize a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically (graphs), numerically (tables), analytically (equations), and verbally. Calculus BC is an extension of Calculus AB rather than an enhancement.” Practice AP problems are given to prepare students for the AP exam which is required at the end of the course.

**Textbook:**

*Calculus — Graphical, Numerical, Algebraic*. 4<sup>th</sup> edition, by Finney, Demana, Waits, and Kennedy. Pearson Education Publishing, Pearson Prentice-Hall, Boston, Massachusetts. ©2012.

**Classwork:**

As the Calculus BC exam is 65% Calculus AB material, students can expect that three-quarters of the first semester will be review of Chapters 1-8 from the text. As these chapters are covered, there will be a few additions of BC material. Chapters 9-11 will be covered in the first half of second semester leaving ample time to prepare for the AP Exam.

**Homework:**

Students will be assigned 6-12 problems nightly from either the text or supplemental worksheets.

**Tests/Projects/Exams:**

Tests in this class will cover one chapter at a time. Exams are cumulative and AP style. Projects take the form of AP free-response questions in the second semester.

Statistics**2 Credits****Prerequisite:**

Algebra I. Seniors may select this class rather than the next class in the algebra series. This may also be taken by juniors or seniors as an elective while enrolled in another math class.

**Purpose:**

This math elective focuses on the study of probability, sampling, analysis, and interpretation of data. It emphasizes concepts using real-world examples from a variety of fields. Students completing this course understand the concepts and controversies surrounding statistical analysis. A project which applies all of the concepts and includes statistical research is a large part of the second semester.

**Textbook:**

*The Practice of Statistics* (4<sup>th</sup> edition), by Starnes, Yates, and Moore, W. H. Freeman & Co., 2010.

**Classwork:**

Students will be assigned 5-15 problems for each section of material and will have 15 minutes of class time to begin the material. Students may also be given in-class review exercises that reinforce difficult concepts.

**Homework:**

Students will be assigned 5-15 problems for each section. Test corrections will also be required after each test.

**Tests/Projects/Exams:**

Tests are roughly given once every two weeks. During the first semester, the first 6 chapters are introduced. For the second semester, chapters 7-12 are completed. A mid-term and final exam are given.

A second semester project is assigned in which the student applies statistical reasoning and procedure.

## AP Statistics

### **2 Credits**

#### **Prerequisite:**

Completion of Algebra II, Geometry, and Advanced Math and/or Honors PreCalc with a B or higher and approval of the Department Chair. Seniors may select this class rather than the next class in the algebra series. This may also be taken by juniors as an elective while enrolled in another math class.

#### **Purpose:**

This AP math elective focuses on the study of probability, sampling, analysis, and interpretation of data. More specifically, students understand the role of sampling distributions and are able to apply inference testing on particular distributions, namely means and proportions. This course is a more rigorous course than statistics and helps develop a student's ability to connect statistical ideas within the framework of a writing course. This course provides supplemental exercises familiarizing students with Advanced Placement expectations.

#### **Textbook:**

*The Practice of Statistics* (4<sup>th</sup> edition), by Starnes, Yates, and Moore, W. H. Freeman & Co., 2010.

#### **Classwork:**

Students will be assigned 5-15 problems for each section of material and will have 15 minutes of class time to begin the material. Students may also be given in-class review exercises that reinforce difficult concepts. AP problems are introduced into the second semester classwork.

#### **Homework:**

Students will be assigned 5-15 problems for each section. Test corrections will also be required after each test. AP practice problems are also assigned for each chapter.

#### **Tests/Projects/Exams:**

Tests are roughly given once every two weeks. During the first semester, the first 6 chapters are introduced. For the second semester, chapters 7-12 are completed. A mid-term and final exam are given.

A rigorous second semester AP Review Guide is also assigned.

## College Math (Calculus III, Linear Algebra, or Differential Equations)

### **2 Credits**

#### **Please note:**

College math is offered based on demand and is sometimes offered in association with CU Succeed.



**Prerequisite:**

AP Calculus BC

**Purpose:**

In the event that a student takes AP Calculus BC before junior year, we will offer a college-level math course if necessary to fill math requirements of 8 credits. When UCCS allows, we will give dual enrollment credit. This class may be offered via UCCS as an online class or it may be offered by Vanguard.

**Depending on staffing and number of students, we will offer a math above Calculus II and textbook. Classwork, homework, and grading will be determined by instructor.**

**Textbook:**

- Linear Algebra: Strang, Gilbert; Introduction to Linear Algebra; 4<sup>th</sup> ed.
- Calculus III: UCCS text

## *Mathematics Department Electives*

### Aviation I

#### **1 Credit**

#### **Prerequisite:**

Algebra I

#### **Purpose:**

This Aviation class explores the fundamentals of the flying environment. This course, when combined with Aviation II, will prepare students to take the Federal Aviation Administration's Private Pilot Knowledge Test. Students will learn about pre-flight procedures, airspace, radio communications, aviation phraseology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures.

#### **Textbook:**

Curriculum handouts produced by the Aircraft Owners and Pilots Association (AOPA)

#### **Classwork:**

Most every day, students will be instructed in elements of the flying environment and flight planning. Students will engage in frequent hands-on activities, often working in small groups. Formative assessments are given multiple times per unit of instruction. Occasionally, guest speakers from the aviation community will discuss their areas of expertise.

#### **Homework:**

Short assignments are given occasionally. These usually consist of reading or conducting individual research into specific aviation topics, such as current events or career opportunities.

#### **Tests/Projects/Exams:**

There will be tests over each unit. An exam is given at the end of the semester.

### Aviation II

#### **1 Credit**

#### **Prerequisite:**

Aviation I

#### **Purpose:**

This Aviation class explores the fundamentals of flight planning. This course will prepare students to take the Federal Aviation Administration's Private Pilot Knowledge Test. Students will learn about regulations, cross-country flight planning, weight and balance, performance and limitations, human factors, chart use, night operations, navigation systems, and aeronautical decision making.

**Textbook:**

Curriculum handouts produced by the Aircraft Owners and Pilots Association (AOPA)

**Classwork:**

Most every day, students will be instructed in elements of the flying environment and flight planning. Students will engage in frequent hands-on activities, often working in small groups. Formative assessments are given multiple times per unit of instruction. Occasionally, guest speakers from the aviation community will discuss their areas of expertise.

**Homework:**

Short assignments are given occasionally. These usually consist of reading or conducting individual research into specific aviation topics, such as current events or career opportunities.

**Tests/Projects/Exams:**

There will be tests over each unit. Students will create an aviation career portfolio and teach a private pilot lesson. An exam is given at the end of the semester.

## Personal Finance

**1 Credit****Prerequisite:**

Algebra I, grades 11 and 12

**Purpose:**

This is an introductory course in personal finance. In this class students will develop a financial plan by creating a cash flow budget and net worth statement. Students will learn taxes by completing and analyzing the 1040 form. Other topics include investments, retirement, insurance, and consumer purchase decisions. The final project will be for students to create goals and use their knowledge to formulate a life plan. This plan will align their values to their financial resources.

**Textbook:**

Personal Finance by Kapoor, Dlabay, and Hughes. 10th edition, 2012.  
ISBN-13: 978-07-353069-7.

**Classwork:**

Students will work individually on formative assessments and collaborate with peers on statements.

**Homework:**

Homework will be assigned for each chapter.

**Tests/Projects/Exams:**

Tests are given at the end of each chapter. The class concludes with an end of the semester project. No Final Exam is given.

## Programming in Python

**2 credits**

**Prerequisite:**

Algebra II

**Purpose:**

This course will teach students Computer Science fundamentals as well as how to program using Python. Once students feel comfortable with these basics, the course will advance to Web Development and building websites. Programming and Web Development skills are highly sought after, and students will benefit from learning these skills at Vanguard should they want to pursue a career in Technology after they graduate

**Course Outline:**

- Computer Hardware and Components
- Introduction to How Computers Work: Hardware vs. Software vs. Firmware
- Introduction to Python: Syntax, Data Types, and Data Structures
- Flow Control: Data Transmission
- Functions
- Lists
- Dictionaries and Structuring Data
- Manipulating Strings
- Pattern Matching with Regular Expressions
- Input Validation
- Reading and Writing Files
- Organizing Files
- Debugging
- Web Scraping
- Web Development

**Textbook:**

None

**Homework:**

None

## *Science Department*

### Honors Biology

#### **2 Credits**

#### **Purpose:**

Honors Biology is a comprehensive survey course. The course begins with investigations on the nature of science and the scientific method, the building blocks of life, and ecology. Cell theory, structure, and function will be followed by energy and mechanics of various cell types. Basic Mendelian genetics and molecular biology will inform discussions on macro and microevolution. General terminology, protocols, and methods taxonomists use for classifying life's diversity will be followed by particular studies in several groups including microorganisms, fungi, plants, and animals. The course will conclude with investigations of various systems of the human body. Honors Biology is intended to help prepare students for high school and college science class expectations, rigor, and work quality.

#### **Textbook:**

Miller, Kenneth, *Prentice Hall Biology*, 2002, Pearson Education, Inc.

#### **Classwork:**

In-depth discussion of biology topics, intense note-taking, and systems modeling require active contributions from each student. Labs provide hands-on application of lecture topics.

#### **Homework:**

Homework is critical and includes pre-reading of lecture material, section and chapter practice problems, systems diagrams, and research assignments.

#### **Tests/Projects/Exams:**

All students will learn and apply scientific method technique in inquiry labs and scientific peer-reviewed reporting in written lab reports, PowerPoints, and research posters. Tests are given at the end of each chapter (sometimes two). Comprehensive exams are given at the end of each semester.

### AP Biology

#### **2 Credits**

#### **Prerequisite:**

Sophomores - Seniors: Previous science courses with B's or higher

Freshmen: All A's in all four quarters of Vanguard 8<sup>th</sup> grade science, Algebra I, and teacher recommendation. Science Department Chair approval required (*which means students must talk to the science Department Chair before registering*).

#### **Purpose:**

AP Biology is a college-level biology course, which covers four big ideas: 1) the process of

evolution driving the diversity and unity of life, 2) biological systems utilizing free energy and molecular building blocks to grow, reproduce and maintain dynamic homeostasis, 3) living systems storing, retrieving, transmitting, and responding to information essential to life processes, and 4) biological subjects from the cellular level through the ecological level. Further advanced inquiry-based laboratory activities are performed throughout the year. The course aims to prepare students for the AP Biology exam near the end of second semester.

**Textbook:**

- Urry, Lisa, et. al., *Campbell Biology in Focus*, 3<sup>rd</sup> edition, 2020, Pearson.
- Peer-reviewed journal articles and science magazine articles

**Classwork:**

In-depth *discussion* of biology topics, intense notetaking, and systems modeling require active contributions from each student. The class is a seminar-based rather than lecture-based class. PowerPoints are not used by the instructor. Labs provide hands-on application of lecture topics. Free response practice in scientific writing occurs regularly. Lab techniques, hypothesis-driven investigations and data analysis and interpretation are practiced constantly. Students will display experimental results in publishable (science journal format) Excel processed graphs.

**Homework:**

The homework load reflects college-level intensity. Reading related to topics covered is voluminous and students will be held accountable for content. Case studies, research, and lab reports are frequently assigned. Reading notes for chapters in Campbell are required before tests on the content.

**Tests/Projects/Exams:**

Tests are given at the end of every chapter or two. Quizzes usually cover reading assignments and unit content in the form of online AP Classroom Progress Checks. A comprehensive exam is given at the end of first semester. The AP Exam is required and occurs near the end of second semester.

**Summer Reading:**

Chapter 1-3 in Campbell with structured Reading Notes assignment. Students will be tested on the summer material (and evaluated for continuation in the course) within the first week of class.

## [Chemistry](#)

**2 Credits****Prerequisite:**

Honors Biology and completion or current enrollment in Algebra I. This course is for students who struggled in Honors Biology and requires recommendation of the science Department Chair. Students earning less than a C must plan for regular, mandatory support sessions that occur during study hall or Activity Period until grade improves.

**Purpose:**

Chemistry is a two-semester survey course covering topics related to the composition, properties, and interactions of matter. The course will introduce elements, compounds, bonding, the mole concept, ideal gas laws, Periodic Law and Table, thermodynamics, acids and bases, equilibrium and solubility. *Students will learn conceptual, qualitative aspects of these topics and practice supported quantitative analyses in labs and lectures.*

**Textbook:**

Myers, R. Thomas, Keith B. Oldham, and Salvatore Tocci. *Holt chemistry*. 2006.  
Holt, Rinehart and Winston.

**Classwork:**

Lecture, instructor demonstrations, and student-conducted laboratory experiments make up the majority of this course's class time.

**Homework:**

Students will receive assignments including problems from the text and worksheets with practice problems that reinforce concepts learned in class. They can expect to take 30 minutes per night to complete the assigned work. Some in-class time may be offered to start homework. Occasional internet-based research on specific topics is given for homework, as well.

**Tests/Projects/Exams:**

- Chapter tests for each 1-2 chapters (announced)
- Quizzes (up to 3 per chapter; announced or unannounced)
- Lab reports (typed in format provided) following student labs

## Honors Chemistry

**2 Credits****Prerequisite:**

Algebra I and Honors Biology. Concurrent or complete Algebra II.

**Purpose:**

This is a two-semester college preparatory chemistry course which is a qualitative, quantitative, and analytical study of matter. Areas studied through both lecture and laboratory investigations include elements and compounds, their composition and interactions, and the energies involved. Other topics include the scientific method, chemical bonds, the mole concept, ideal gas laws, states of matter, the Periodic Law and Table, thermodynamics, acids and bases, equilibrium and solubility, electrochemistry, organic chemistry, and nuclear chemistry. Each student is expected to conduct independent problem solving and open-ended laboratory work. This course requires a solid understanding of algebra and geometry principles.

**Textbook:**

Myers, R. Thomas, Keith B. Oldham, and Salvatore Tocci. *Holt chemistry*. 2006. Holt, Rinehart and Winston.

**Classwork:**

Lecture, content practice, instructor demonstrations and student-conducted laboratory experiments make up the majority of this course's class time.

**Homework:**

Students will receive content-centered worksheets relating to the day's discussion material as daily homework, and they can expect to take 30 minutes per night to complete the assigned work. Some in-class time may be offered to start homework. Occasional internet-based research on specific topics is given for homework, as well.

**Tests/Projects/Exams:**

- Chapter tests for each 1-2 chapters (announced)
- Quizzes (up to 3 per chapter; announced or unannounced)
- Lab reports (typed in format provided) following student labs

**AP Chemistry****2 Credits****Prerequisite:**

Sophomores: Successful completion of Honors Biology with high A or AP Biology with A or B.

Juniors and Seniors: Completion of science classes, to include Honors Chemistry, with a grade of B or higher.

All: Completion of Algebra II with grade of B or higher and science Department Chair approval required (*which means students must talk to the Science Department Chair before registering*).

**Purpose:**

This is a college-level course emphasizing concepts in much greater depth than Honors Chemistry. College level text, laboratory situations, and laboratory instrumentation are used. Successful students perform calculations in the various topics as indicated in the College Board's AP Chemistry course description, and they can explain in clear and concise English the fundamental concepts and theories behind these topics. This course involves extensive work both in and out of the classroom. Independent study is utilized whenever possible.

**Textbook:**

Zumdahl and Zumdahl. *Chemistry (AP Edition), 9<sup>th</sup> Ed.* Brooks Cole, 2014. Print.

**Classwork:**

Lecture, instructor demonstrations, and student-conducted laboratory experiments make up the majority of this course's class time.



**Homework:**

3-6 AP style questions relating to the day's discussion material will be assigned daily as homework, students can expect to take up to 60 minutes to complete assigned work. Occasional Internet-based research on specific topics will be assigned.

**Tests/Projects/Exams:**

- Chapter tests for each 1-2 chapters (announced)
- Quizzes midway through each unit (announced or unannounced)
- Lab reports (typed in format provided) following student labs
- The AP exam is required and occurs near the end of second semester

**Summer Reading:**

- Selected readings from Zumdahl and Zumdahl with provided guided reading questions.
- Selected modules and practice problems from <https://oli.cmu.edu/courses/general-chemistry-1-open-free/>. The instructor will identify specific units and modules toward the end of the spring semester.
- Students should anticipate at least 15-20 hours of work to complete the textbook readings and online modules and expect a test over the summer material within the first week of class.

Physics**2 Credits****Prerequisite:**

Algebra II. This course is designed for students who are below grade level in math and/or made a C or lower in Honors Chemistry and have the recommendation of the science Department Chair.

**Purpose:**

Conceptual Physics is a two-semester course which studies the behavior of physical objects in qualitative, quantitative, and analytical ways. Topics include motion, forces, energy, light, sound, and electricity. This course requires an understanding of algebraic and geometric principles.

**Textbook:**

Serway, Raymond A., and Jerry S. Faughn. 2006. *Holt physics*. Holt, Rinehart and Winston.

**Classwork:**

Class work consists of practice problems, activity worksheets, and explanations of demonstrations.

**Homework:**

students will receive 3-4 problems a night and can expect to spend about 20 minutes on them.

**Tests/Projects/Exams:**

- 1-2 lab reports per semester
- 3 quizzes and 1 test per chapter

## Honors Physics

### **2 Credits**

#### **Prerequisite:**

Algebra II with a grade of C or better; completion of chemistry with a C or better.

#### **Purpose:**

This is a two-semester college preparatory physics course which is a qualitative, quantitative, and analytical study of the behavior of objects in the physical world. Areas studied through both lecture and laboratory investigations include motion, forces, energy, light, sound, electricity, electrical potential, and electric circuits. Physics is concerned with the study of fundamental concepts explaining the form and function of the universe. Each student is expected to conduct independent problem solving and open-ended laboratory work. This course requires a solid understanding of algebraic principles.

#### **Textbook:**

Serway, Raymond A., and Jerry S. Faughn. 2006. *Holt physics*. Holt, Rinehart and Winston.

#### **Classwork:**

Class work consists of practice problems, activity worksheets and explanations of demonstrations.

#### **Homework:**

Students will have 4-5 problems for homework every night and can expect to spend about 25 minutes completing them.

#### **Tests/Projects/Exams:**

- 2-3 lab reports per semester
- 3 quizzes and 1 test per chapter

## AP Physics I

### **2 Credits**

#### **Prerequisite:**

Juniors: Completion of Honors Chemistry with an A or AP Chemistry with an A or B.

All: Completion of all science classes with a grade of B or higher; concurrent or complete in Pre-calculus; B's or higher in math courses and/or teacher recommendation; and science Department Chair approval required (*which means students must talk to the science Department Chair before registering*).

#### **Purpose:**

AP Physics I is a rigorous, college-level algebra-based physics course. Incoming students should

be well-versed in algebra and trigonometry and have robust mathematical and problem-solving skills. Some basic calculus concepts are introduced and utilized. The course covers the principles of kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, and torque and rotational motion.

**Textbook:**

Young, David, et al. Cutnell & Johnson Physics, 11th Edition. John Wiley & Sons, Inc., 2018.

**Classwork:**

Students work through example problems as part of the daily lecture. Most class periods begin with time to ask questions about the previous night's homework.

**Homework:**

Problems from the textbook are assigned as homework every day, with an average of 4 problems to be worked each night.

**Tests/Projects/Exams:**

Each test covers one of the seven units in the course. The semester exam in December is cumulative for the content covered in the first semester, and students are required to take the AP exam in May.

**Summer Reading:**

Students will complete a math packet that focuses on skills necessary for success in AP Physics I.

[AP Physics C](#)

**2 Credits**

**Please note:**

Offered based on demand.

**Prerequisite:**

Completion of or concurrent enrollment in Calculus and teacher recommendation. Science Department Chair approval required (*which means students must talk to the science Department Chair before registering*).

**Purpose:**

AP Physics C is equivalent to the first two semesters of calculus-based college physics and is especially appropriate for students planning to specialize in science or engineering. The course applies differential and integral calculus to the following areas: kinematics, Newton's laws of motion, work and energy, systems of particles and linear momentum, circular motion and rotation, oscillations and gravitation, electrostatics, conductors, capacitors, dielectrics, electric circuits, magnetic fields, and electromagnetism.

**Textbook:**

Young and Freedman, University Physics, 14th ed.

**Classwork:**

Students will have practice problems throughout the lecture. There will also be in-class exercises that will be counted in the homework category.

**Homework:**

Homework will be assigned once or twice a week, either from the textbook or AP Classroom.

**Tests/Projects/Exams:**

Depending on time and equipment available, students will perform experiments to further their understanding of the material. Most labs will require a written report, and students are expected to maintain a portfolio of their lab reports.

Tests will consist of either 35 multiple choice questions or 3 free response questions, covering either 2 or 3 units based on the AP Physics C Course and Exam Description. The semester exam in December will be modeled on a full AP Physics C: Mechanics exam. Students will be required to take both the AP Physics C: Mechanics and AP Physics C: Electricity and Magnetism exams in May.

## *Science Department Electives*

### Astronomy

#### **1 Credit**

#### **Prerequisite:**

Students should have a good general grasp of basic science and math; Algebra I.

#### **Purpose:**

This spring semester course provides students with an appreciation of the night sky and an understanding of the types of objects found in the cosmos. Students will learn how objects in the sky move through daily and seasonal cycles, how stars, planets, and other bodies formed and evolve, how scientists study the heavens, and how astronomy has influenced cultures around the globe. Students will have the opportunity to observe the sky through assigned projects and, weather permitting, telescopes provided by the instructor and local astronomy club. Telescope observing may include viewing the sun through approved solar filters. Student-owned telescopes or binoculars are NOT required but encouraged if available. All observation projects can be completed without optics. Students will need to provide a bound journal for field notes, a red-filtered flashlight, and a small compass (or app on a phone) to complete observing projects.

#### **Textbook:**

Comins and Kaufmann III: Discovering the Universe, Tenth ed., W.H. Freeman and Company, 2014.

#### **Classwork:**

Lecture and discussion (including small groups), demonstrations and hands-on activities, telescope observing (weather permitting) make up the majority of this course's class time.

#### **Homework:**

Reading from the text, problems from the text (primarily concept-based short answer), possible Internet-based research on special topics are assigned daily as homework.

#### **Tests/Projects/Exams:**

Student projects include multi-night observation projects aimed at demonstrating daily, monthly, and seasonal changes in the sky. Announced written tests are given every 1-2 chapters. Short open-note quizzes, announced and unannounced, occur frequently.

#### **Course Fee:**

**\$50.00**

### Electricity, Magnetism, and Modern Physics

#### **2 credits**

**Prerequisite:**

A, B, or higher in Physics OR Honors Physics OR AP Physics 1

**Purpose:**

In the 1 year of physics that is part of the core curriculum at The Vanguard School, we barely scratch the surface of electricity and magnetism. This course is a 1-semester elective that is a continuation of Physics 1 and an inquiry-based course in which students learn the physics from performing labs and reporting on those labs. Students will also research careers in physics in order to appreciate the wide applications of physics.

**Fundamentals of Model Rocketry****1 credit****Purpose:**

- Provide students a hands-on, project-based application of the fundamentals of rocket design, construction, and flight.
- Guide students through designing, building, and flying model rockets with specific objectives.
- Provide students experience in collecting and analyzing flight data to compare performance against design predictions in order to validate simulations or modify designs to correct for deviations from planned objectives.
- Encourage students to consider STEM-focused career paths, particularly in aerospace disciplines.
- Provide students with sufficient experience and confidence in rocketry to compete in The American Rocketry Challenge (TARC).

**Textbook:**

None. Handouts and not-takers will be provided as needed.

**Classwork:**

Largely project-bases with a small number of lecture days to provide foundational concepts.

**Homework:**

All work is designed to be completed in class. Students who miss class days may need to take work home or come in during activities period to make up work.

**Tests/Projects/Exams:**

No tests. Write-ups for projects reflecting individual and group work are required occasionally.

**Field Work/Trips/Activities:**

Students need to attend at least one of three Saturday sessions to launch rockets and collect data. Students are responsible for transportation to and from these launch events. Launches are conducted in conjunction with the Colorado Springs Rocket Society (COSROCS).

**Note:**

If city fire restrictions prevent the club from conducting launches, this requirement will be waived. Students may also travel to Pueblo to launch with the rocketry club there as an optional activity.

**Course Fee:**

**\$50.00;** This covers the cost of rocket kits, building supplies, and one rocket motor and recovery wadding for each kit built during the class. Students may purchase additional motors and recovery wadding for their rockets at local hobby shops (e.g., Hobby Town or Hobby Lobby) or online.

## Honors Anatomy

**1 Credit****Prerequisite:**

Honors or AP Biology

**Purpose:**

In this fall semester science elective, students will learn the structures of the human body. It will be heavily concentrated on the orientation, location, and memorization of bones, muscles, arteries, veins, and nerves. This will lend itself to the understanding of joint types, bone types, origins and insertions, bony landmarks, and any other structural features associated with the human body.

**Textbook:**

Hall, Susan J., et. al., *Introduction to Anatomy and Physiology*, 2014, Goodheart-Willcox Company, Inc.

**Classwork:**

Note taking and practice during lecture is required.

**Homework:**

Varies between text assignments, reading, and constructed.

**Tests/Projects/Exams:**

Tests will be given at the end of each chapter. Labs will reinforce content.

**Course Fee:**

**\$50.00**

## Honors Physiology

**1 Credit****Prerequisite:**

Honors or AP Biology

**Purpose:**

This spring semester course is designed to enhance students' understanding of the human body through learning its various functions. Over-lying concepts include basic cell processes, homeostasis, cardiovascular system and metabolism, and growth and aging. This course is aimed at those who might consider a career in healthcare or human biology.

**Textbook:**

Hall, Susan J., et. al., *Introduction to Anatomy and Physiology*, 2014, Goodheart-Willcox Company, Inc.

**Classwork:**

Note taking and practice during lecture is required.

**Homework:**

Varies between text assignments, reading, and constructed.

**Tests/Projects/Exams:**

A test will be given at the completion of a different body system. Labs will reinforce content.

**Course Fee:**

**\$50.00**

## Problem Solving Engineering

**1 Credit****Prerequisite:**

Only open to sophomores - seniors.

**Purpose:**

Problem Solving in Engineering introduces students to diverse fields of engineering through projects and computer modeling. Students will compete in various engineering challenges including building bridges, robots and remote-control gliders. Students will learn programming basics as well as electronic circuit design and assembly.

**Textbook:**

None

**Classwork:**

Project design and building.

**Homework:**

Project support.

**Tests/Projects/Exams:**

Project and participation-based grading to include bridges, gliders, and robots.

**Course Fee:**

**\$50.00**



## *Physical Education Department*

### Physical Education

#### **1 Credit**

#### **Purpose:**

Physical Education emphasizes health-related fitness and developing the habits and skills necessary for a lifetime of activity and movement. This course provides high school students with the opportunity to achieve and maintain a life-long, health-enhancing level of physical fitness and increases their knowledge of various sports. This course includes skill development and the application of rules and strategies along with different movement forms. These include: 1) health-related fitness activities (cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition), 2) aerobic exercise such as running and calisthenics, 3) team sports (football, basketball, volleyball, team handball, softball, and ultimate Frisbee, among others), and 4) recreational games (whiffle ball, kickball, dodge ball and capture the flag, among others). Ongoing assessment includes both written and performance-based skill evaluations along with timed mile runs.

#### **Textbooks:**

None

#### **Classwork:**

The daily schedule of Physical Education will begin with an assortment of calisthenics that includes crunches, pushups, jumping jacks, windmills, among others. It will be followed by a time of stretching to loosen up the muscles and warm-up. Students will then receive instruction about the day's game, followed by time to play the game.

#### **Homework:**

None

#### **Tests/Projects/Exams:**

There will be assessments either skills or written based after each unit.