

University School of Jackson

# Upper School Course of Studies



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# Upper School Courses

## *Visual and Performing Arts*

(One [1.0] unit required for graduation)

### **Performing Arts – Music**

#### **AP Music Theory (Grades 10-12, YR-1.0, departmental recommendation)**

This college level course develops a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or represented in a score. Students will master the rudiments and terminology of music, including notation, intervals, scales and keys, chords, metric organization, and rhythmic patterns, along with more advanced material.

#### **Band – Upper School (Grades 9-12, YR-1.0)**

The course is designed to expose students to advanced level music skills, with the intent to foster and develop goal setting, time management, rehearsal etiquette, performance practices, personal and group responsibility, and to instill a desire for lifelong learning. Students may choose to perform with the concert band, athletic band, jazz band, pit orchestra, percussion ensemble, and/or woodwind and brass ensemble. Required participation include: All preparation for class activities, Home Football games and Seasonal concerts

#### **Honors Band -- Upper School (Grades 11-12, departmental recommendation, YR-1.0)**

Honors Band requires further commitments and has additional expectations for those students choosing this course. Students in Honors Band will participate in additional activities and auditions as required by the band director, including All-West Concert Band, Jazz Band, or Orchestra auditions, perform in all Musical productions and any USJ sanctioned/requested performance.

#### **Chorus (9th grade, YR-1.0, Non-Audition and Performance)**

This course is recommended as a prerequisite for USJ Concert Choir. Students learn the basics of music theory and prepare for auditioned ensembles.

#### **Concert Choir (Grades 10-12, YR-1.0, Audition or departmental recommendation)**

This course is designed for experienced vocal students interested in serious choral studies. This choir is the premier performance group at USJ. Students learn a variety of choral literature as they increase their vocal skills, Students are required to participate in all regional and state vocal events for which they qualify.

### **Performing Arts –Theater**

#### **Introduction to Theater (Grades 9-12, SEM-0.5)**

In this class, students will learn the history of Theater and how it has evolved over the years. Throughout the course, they will study different acting methods, stages, directions, and the many different roles that make a production come to life. By the end of the semester, they will become well-rounded in all aspects of theater.

#### **Advanced Theater (Grades 10-12, Spring SEM-0.5, Prerequisite: Introduction to Theater or departmental recommendation)**

In this course, the student will focus on the major building blocks of the dramatic arts, such as script analysis and scene study. They will continue to refine their skills in a variety of areas, including movement, characterization and vocal interpretation. They will also explore the relationship between such visual elements as design and directing and the script itself.

## **Visual Arts**

### **Art I-Beginning Art (Grades 9-12, YR-1.0)**

This course is an entry-level art course in visual art. The course is intended to offer the student an introduction to a variety of art techniques, styles, media and materials. In addition to art production, students will be introduced to art history and aesthetics. Some of the history will be incorporated into studio art lessons, and some of the studio art will be incorporated into a lesson or unit focusing on a historical concept. This class is for the student wanting a diverse art experience at a beginning competency level.

### **Art II & Art III-Intermediate Art & Advanced Art (Grades 10-12, YR-1.0, Prerequisite-Art I)**

These courses are specifically designed for those students who wish to continue into AP Studio Art their junior or senior year. Both courses intend to offer the student an opportunity to advance their art skills in a variety of art techniques, styles, media and materials. The courses will guide students as they begin to develop a portfolio that they can submit at the conclusion of AP Studio Art. Though assignments will by the very nature of art repeat many basic concepts from Art I, they will be completed at a more advanced level and will require prior knowledge of the basics of drawing, design, and sculpture.

### **AP Studio Art I, II, and III (Grades 11-12, YR-1.0, Prerequisite: Art II or Art III, departmental recommendation)**

The AP studio Art Course is a college level course in the visual arts. The AP Program offers three portfolios: Drawing, 2-D Design, and 3-D Design. The portfolios share a basic, three-section structure, which requires the student to show a fundamental competence and range of understanding in visual concerns (and methods) as well as a competence in describing verbally the themes and topics addressed in their work. The course is intended to offer the student a college level curriculum in a high school environment. Students who successfully complete the course can request credit from the college or university they will attend. The awarding of college credit for AP scores is at the discretion of individual schools. Students in this course will be expected to work diligently in class to complete AT LEAST five pieces each quarter in addition to five pieces completed over the summer. The final portfolio will include three total sections: the essay section which includes 5 essays addressing the theme and style developed throughout their work, the concentration section which includes 15 pieces demonstrating an understanding of the development of a theme using a common style and media, and the quality section which includes five actual works of high artistic quality illustrating skill in handling media and an understanding of the elements and principles of art through strong composition.

### **Sculpture I and II (Grades 10-12, SEM-0.5, Prerequisite: Art I or departmental recommendation)**

These semester-long courses are designed to introduce students to various materials used to create sculptures, including clay, plaster, wire, paper and wood. Students will experiment with additive and subtractive methods. Students will also be required to analyze other works of sculpture through reading, discussion and critique.

### **Exploratory Art (Grades 10-12, SEM-0.5, Prerequisite Art I or departmental recommendation)**

This is a class designed to allow students to create many different 2-D and 3-D works of art. Projects will include printmaking, photography, pottery, textiles, jewelry, stained glass, weaving, mixed-media projects, etc. Students should have a working knowledge of the elements and principles of art and should be highly motivated and creative.

### **Art History (Grades 11-12, SEM0.5)**

In this course, students will analyze, discuss, and research great works of art. First semester will start with ancient art and architecture and move into the Renaissance, while second semester will start with the Renaissance and move to the modern period. The larger goal of the course is to equip students to think critically about what images say about culture, so they have tools to analyze both the history of art and daily visual experiences in our modern world.

## ***Electives***

(A total of five [5.0] units of elective courses are required for graduation. Students can fulfill this requirement through taking the courses below as well as additional courses listed under each department.)

### **AP Computer Science (Grades 10-12, YR-1.0, Prerequisite: Algebra 1)**

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

**Broadcast Journalism (Grades 9-12, SEM-0.5)** This course introduces the beginning journalist to the basic tools, techniques and vocabulary of broadcast journalism. Ethical issues will also be reviewed and analyzed. Students will examine, analyze, and critique broadcast news productions and video tape and produce their own broadcast productions, including athletics, fine arts, performing arts, and other school activities. Students will use common computer applications (Microsoft Office) and multimedia technology in addition to learning the function and use computer and video hardware. Students will be expected to work outside of class time to produce and film broadcast productions.

### **Honors Research and Writing (Grade 12, YR-1.0)**

This course allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further their skills by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

### **Introduction to Statistics and Probability (Grade 12, SEM-0.5, Prerequisite: Two years of high school algebra and signing of student course contract).**

**This course is a dual enrollment course at Union University and will be taught by a Union’s Math professor.**

Students interested in the course must meet Union University requirements to enroll in descriptive statistics with introduction to inferential statistics. Topics include organization of data into frequency distribution tables and histograms, measures of central tendency, standard deviation, basic probability, continuous distributions through the normal distribution, introduction to sampling theory and hypothesis testing.

### **Project Management (Grades 11-12, SEM-0.5, Prerequisite: Must be enrolled in JSCC online course, FALL only)**

The Project Management course is open to juniors and seniors interested in taking a JSCC online course during the **fall semester**. The course facilitator will help students navigate the JSCC J-Web and E-Learn online course management platforms and work with students on the development of college-level assignments. In addition to overseeing the JSCC work, the course will include project management, standardized test prep, and life skills components. Students will be responsible for meeting the JSCC admissions criteria, registering for the course, and determining their payment options using the dual enrollment grant.

**Theory of Knowledge (Grades 11-12, SEM-0.5)** Theory of Knowledge is a course about critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. The overall aim of TOK is to encourage students to formulate answers to the question “how do you know?” in a variety of contexts, and to see the value of that question. This allows students to develop an enduring fascination with the richness of knowledge. Specifically, the

aims of the TOK course are for students to: Make connections between a critical approach to the construction of knowledge, the academic disciplines, and the wider world; Develop an awareness of how individuals and communities construct knowledge and how this is critically examined; Develop an interest in the diversity and richness of cultural perspectives and an awareness of personal and ideological assumptions; Critically reflect on their own beliefs and assumptions, leading to more thoughtful, responsible, and purposeful lives; Understand that knowledge brings responsibility which leads to commitment and action.

## ***English***

(Four [4.0] consecutive units required for graduation)

**English I-Literature and Composition (9<sup>th</sup> grade, YR-1.0)** This course is the introductory component to the study of language and literature. It is designed to prepare each student for the requirements of college and university writing and study. Students will study a variety of literature from various genres, writing techniques, research, vocabulary and grammar. Classes will consist of lecture, note taking, projects (both oral and written), quizzes, and tests.

### **English I Honors -Literature and Composition (9<sup>th</sup> grade, YR-1.0, departmental recommendation)**

This course is the introductory honors component for the study of language and literature. Students will study a variety of literature from various genres, writing techniques, research, vocabulary, and grammar. The class is designed to develop critical thinking skills in order to prepare students for a more in-depth study of literature offered in the Honors English courses in 10<sup>th</sup>-12<sup>th</sup> grade. Classes will consist of lecture, note taking, projects (both oral and written), quizzes, and tests.

### **English II-Survey of American Literature (10<sup>th</sup> grade, YR-1.0)**

This course concentrates on critical, expository, and research writing, offered through a chronological study of American literature. Grammar is studied as deficiencies surface in the writing. Students explore the research process, particularly the use and application of online scholarly databases, as they create an annotated bibliography.

### **English II Honors-Survey of American Literature (10<sup>th</sup> grade, YR-1.0, departmental recommendation)**

English II Honors is a survey of American Literature from the Puritan Period to the modern era. Students focus on the historical and social context of textbook literature, the novel, and drama. Students interpret, analyze, and synthesize the literature. Writing assignments include reflective responses, persuasive writing, and analytical essays. Grammar skills are reviewed as well as vocabulary. Major assignments include a poetry project and an analytical research paper.

### **English III - Survey of Western Literature (11<sup>th</sup> grade, YR-1.0)**

English III is a survey of Western Literature from Medieval Literature to the modern era. Students will focus on the historical and social context of textbook literature as well as comprehension, interpretation, and analysis of material presented. Writing assignments include reflective responses and academic essays. Grammar skills are reviewed via daily assignments. Major assignments include a poetry project, a literary research paper, and a visual interpretation of a character/literary element of choice. An independent vocabulary program is required.

### **AP English Language (11<sup>th</sup> grade, YR-1.0, departmental recommendation)**

This honors course is designed to prepare students for the AP English Language exam. Students read British and American literature written from a variety of rhetorical contexts and analyze the writer's purposes, the audience's expectations, and how the language of the writing contributes to the overall effectiveness. An emphasis is placed on the ability to synthesize when writing. Research in AP English Language consists primarily of the completion of an annotated bibliography as preparation for the senior year.

### **English IV - World Literature (12<sup>th</sup> grade, YR-1.0)**

This course is designed to prepare students for college freshman composition with emphasis on expository, critical, and research writing; studies in reading comprehension; and review of grammar skills. Writing assignments are based on

studies of thematic ideas and conflicts in literature written primarily during the 19<sup>th</sup>, 20<sup>th</sup>, and 21<sup>st</sup> centuries. Students will also complete a 15-20 page comparative analysis paper.

**AP English Literature (12<sup>th</sup> grade, YR-1.0, Prerequisite: AP English Language, departmental recommendation)**

This college-level honors course prepares students for the AP Literature exam. Students study literary style intensively-including the study of tone, narrative technique, literary devices, and irony-with an emphasis on titles that have appeared frequently on past AP exams. Students will also complete a thirty-page, research-based thesis paper.

**Journalism (Grades 10-12, YR-1.0)**

This course's primary purpose is to develop and publish two yearbooks. One book presents the Lower School, and the other presents the Middle and Upper Schools. Students will produce the books with an online program that will require and enhance computer skills. Other areas such as design, publishing, journalism, sales, photography, organization, time management, and teamwork are an integral part of the curriculum. Students will need to fill out an application for this course, and the teacher will interview the students and then select the students for the course.

**Book Study Seminar (Grades 11-12, SEM-0.5)**

Students and teachers study three to five books per semester. This discussion and presentation-based course exposes students to a diverse set of books/plays in terms of setting, mood, style, popularity, timeliness, etc. This course is designed to improve students' reading and writing skills and to foster a love of literature.

**Creative Writing (Grades 11-12, SEM-0.5)**

Students will write creatively according to different styles and formats, beginning with traditional and disciplined styles and ending in more free structures. Students will write poetry, prose, and drama (dialogue).

**Women's Studies (Grades 11-12, SEM-0.5)**

Students will study the progression of the influence of women in the nineteenth and twentieth centuries, from social standards to politics, religion, and the arts, particularly literature. The focus will be primarily on how women have sought to establish themselves in modern society.

**Speech (Grades 9-12, SEM-0.5)**

This course is designed to teach and develop a student's public speaking skills. Emphasis is placed on the importance of public speaking and the fundamentals of speech, speech preparation, and presentation.

***World Language***

(Three [3.0] units of the same language required for graduation)

**French**

**French I (YR-1.0)**

This course is designed for those students who have had no experience in French or who have had some previous exposure. The course introduces basic survival, topic-oriented vocabulary, elementary grammar and tense usage. A student should master listening, speaking, reading and writing skills associated with chapter presentations. An appreciation of French culture is acquired through enrichment activities, realia, film, and selected readings.

**French II (YR-1.0, Prerequisite: French I)**

This course will allow students to communicate in the past, present, and future about daily life in the target language while providing a linguistic foundation for further study. The emphasis will be placed on listening, speaking, reading, writing, and recognizing a wide range of vocabulary and grammatical structures. Students will learn to understand basic French in normal conversational contexts, to speak and write in culturally acceptable forms, and to appreciate differences of the French-speaking world.



**Honors French II -- Intermediate French Grammar and Conversation (YR-1.0, Prerequisite: French I, departmental recommendation)**

This course is designed for those students who have successfully completed French I. While continuing to develop aural and oral skills, this course increases the amount of reading and writing required. Emphasis is placed on expanding written and communication skills through further study of verb usage, basic sentence structure, written composition and oral presentations. There is continued emphasis on French culture.

**French III (YR-1.0, Prerequisite: French II)**

This course is designed for those students who have successfully completed French II. This course continues the development of listening, speaking, reading and writing with a thorough review of regular and irregular verbs, intermediate grammar concepts, and vocabulary expansion. Teacher approval is needed to continue French studies by enrolling in the French III Honors.

**Honors French III -- Advanced French Grammar and Conversation (Grades 10-12, YR-1.0, Prerequisite: French II, departmental recommendation)**

This course is designed for those students who have successfully finished French II Honors or French III and receive a teacher recommendation. This course continues the development of listening, speaking, reading and writing skills through a study of cultural and literary selections from a variety of sources. There is particular emphasis placed on the mastery of new tenses, grammar concepts and idiomatic expressions. Students regularly proceed to French IV Honors.

**Honors French IV Advanced French Grammar and Composition (Grades 11-12, YR-1.0, Prerequisite: Honors French III)**

Honors French IV allows seniors, who have completed Honors French III, but who are not ready for the challenge of AP French Language, the opportunity to avoid a gap in their language learning before entering college while mastering a higher degree of proficiency in the knowledge and skills expected in a third-year intermediate French course.

Honors French IV also allows juniors, who have completed Honors French III, but who are not ready for the rigorous expectations of AP French Language the occasion to continue mastery of the French language in preparation for college, avoiding a gap in language learning. Most juniors will benefit from completing Honors French IV before continuing with AP French during senior year.

Honors French IV is a completely different curriculum from Honors French III. After an initial review of important concepts covered in Honors French III, the curriculum will expose students to more vocabulary, culture, reading comprehension, writing and speaking of the genre typically seen in a third-year college course. Every effort will be made to encourage student proficiency while strengthening the following skills: reading, writing, listening, speaking, and cultural understanding of the francophone world.

**AP French Language and Culture (12<sup>th</sup> grade, YR-1.0, Prerequisite: French III Honors, departmental recommendation)**

This course immerses students in the target language, providing them with a classroom experience common in advanced-intermediate college courses. Listening, speaking, reading, writing, and exploration of French culture are emphasized throughout the year so as to best prepare students for the AP French Language and Culture Exam.

## **Spanish**

**Spanish I (YR-1.0, Prerequisite: Placement test and/or departmental recommendation)**

This course introduces students to the fundamentals of Spanish grammar and vocabulary through the study of the basic skills of listening, speaking, writing, and reading. Students will explore the cultures of Spanish-speaking countries throughout the world. This course is designed for students who made a “C” or better in 8<sup>th</sup> grade Spanish at USJ or for new students to USJ, who have never had exposure to the language but who have a strong work ethic and desire to learn

Spanish. Placement in this class will be determined based on placement test and/or interview with the Department chair during the admissions process. Instruction will be carried out almost completely in Spanish.

**Honors Spanish I -- Spanish Grammar and Conversation (YR- 1.0, Prerequisite: Placement Test and/or departmental recommendation)**

This first-year Spanish course is designed for rising 9<sup>th</sup> grade USJ students who have excelled in Spanish in Middle School or new students to USJ who have had significant exposure to the Spanish language. This course is taught entirely in the target language, and the pace and scope of the course is commensurate with the first two semesters of college Spanish. Placement is determined by departmental recommendation.

**Spanish II (YR-1.0, Prerequisite: Spanish I)**

This course will allow students to communicate in the past, present and future about daily life in the target language while providing a linguistic foundation for further study. The emphasis will be placed on listening, speaking, reading, writing, and recognizing a wide range of vocabulary and grammatical structures. Students will learn to understand basic Spanish in normal conversational contexts, to speak and write in culturally acceptable forms, and to appreciate differences of the Spanish-speaking world. The basic format is an interactive lecture with some group and independent work. Students are expected to read and complete practice activities outside of class. We will practice in class using dialogs, homework review, and students will take quizzes and tests, as well as some written practice.

**Honors Spanish II -- Intermediate Spanish Grammar and Conversation (YR-1.0, Prerequisite: Spanish I, departmental recommendation)**

This course will allow students to communicate in the past, present, and future about daily life in the target language while providing a linguistics foundation for further study. The emphasis will be placed on listening, speaking, reading, writing and recognizing a wide range of vocabulary and grammatical structure. Students will learn to understand basic Spanish in normal conversational contexts, to speak and write in culturally acceptable forms, and to appreciate the cultural differences of the Spanish-speaking world. The basic format is an interactive lecture with some group and independent work. Students are expected to read and complete practice activities outside of class. We will practice in class using dialogs, homework review. Students will take quizzes and tests, keep a journal, make presentations, as well as other written practice.

**Spanish III (Grades 11-12, YR-1.0, Prerequisite: Spanish II)**

This course seeks to develop a greater appreciation for the culture and heritage of the Spanish-speaking countries. The knowledge of grammar is reviewed and expanded and continual review and application of vocabulary is expected.

**Honors Spanish III-- Advanced Spanish Conversation and Grammar (Grades 10-12, YR-1.0, Prerequisite: Honors Spanish II and/or departmental recommendation)**

This course is similar to Spanish III in that emphasis is placed on advancing fluency and proficiency. Selected literary works are read and analyzed and a great deal of importance is placed on improving the student's reproductive language skills.

**Honors Spanish IV Advanced Spanish Conversation and Composition (12<sup>th</sup> grade, YR-1.0, Prerequisite: Honors Spanish III)**

Honors Spanish IV allows students who have completed Honors Spanish III, but who are not ready for the challenge of AP Spanish Language, the opportunity to avoid a gap in their language learning before entering college while mastering to a higher degree of proficiency the knowledge and skills expected in a 3rd-year intermediate conversation course.

Honors Spanish IV is a completely different curriculum from Honors Spanish III. After an initial review of important concepts covered in Honors Spanish III, the curriculum will expose students to more vocabulary, culture, and advanced grammar than is typically seen in a third-year college course. Every effort will be made to improve students' proficiency while strengthening the following skills: reading, writing, listening, speaking, and culture.

**AP Spanish Language and Culture (12<sup>th</sup> grade, YR-1.0, Prerequisite: Spanish III Honors, departmental recommendation)**

This course continues with further study of language structure and vocabulary, with a strong emphasis upon oral work and composition. The understanding of advanced structure of the language is a primary goal. Selected literary works, essays, and discussions help prepare students to take the AP exam in the spring.

***History and Social Sciences***

(Three [3.0] units required for graduation -- including World History and U.S. History [Standard or AP])

**US and World Issues (Grades 9-12, SEM-0.5)**

This course examines the forces that shape the modern world. Students will cover major current events at the local, state, and national level. Political, social, and cultural topics will be included. Students will be required to write essays and to make presentations to the class.

**Economics (Grades 10-12, SEM-0.5)**

This course will survey principles of microeconomics and macroeconomics including such topics as basic economic concepts, globalization, free enterprise, supply and demand, the theory of the firm, the function of markets, economic cycles, fiscal policy and monetary policy. The overall goal of the course is to provide students with a basic understanding of the functions of the United States' economy and world economies. The basic structure will be a discussion format supplemented by lectures that require daily student reading and participation. We will analyze documents, write essays, make presentations, participate in simulation activities, and take quizzes and tests.

**Government (Grades 10-12, SEM-0.5)**

Students complete an in-depth examination of the American political system from local to national levels. This course is concerned with the nature of the American political system, its development over the past two hundred years, and how it continues to function at present. Students will examine in detail the principal processes and institutions through which the political system functions, as well as some of the public policies which these institutions implement.

**Psychology I (Grades 10-12, SEM-0.5)**

This course is a survey of the basic principles and problems in psychological science. The biological, cognitive, and social perspectives of human thought and behavior are addressed. Units include: History of Psychology; Psychology as a Profession; Psychological Research; Physical, Perceptual, Social and Language Development; Motivation; and Learning Theory.

**AP Psychology (Grades 11-12, YR-1.0, departmental recommendation)**

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. This course covers some material that is of a mature nature.

**World Religions (Grades 9-12, SEM-0.5)**

This course examines the six major religions in the world today: Christianity, Islam, Buddhism, Hinduism, Shintoism, and Jainism. Additionally, other religions that shaped the current world situation are discussed including Taoism, Confucianism, Judaism, and Sikhism. Students will be asked to examine their own religious beliefs in light of other religious traditions. Students will research religious practices, make presentations, evaluate sacred texts, and participate in class discussions designed to help them better understand the influence of these religions on the course of world history and gain a better knowledge of global citizenship.

### **History in Film (Grades 10-12, SEM-0.5)**

*History In Film* is a semester-long elective with two learning objectives. First, it offers students an introduction into the **history of film** as a technology, an art form, and a cultural force. Second, it teaches students to **analyze movies** through the lens of the social sciences, asking how film has been used to report and interpret history and world events. Major themes include science and technology, industry and urbanization, politics and the world wars, 1960s counterculture, and the Cold War. The course is highly interdisciplinary. It will support our social studies, literature, government, and fine arts courses. By watching and interpreting classic movies, we will develop our **positive transfer** skills - what happens when you learn to analyze and connect what you know from different areas of study

### **20th Century Studies - “The Deadly Century” (Grades 11-12, SEM-0.5)**

Between 1914 (the start of the First World War) and the Bosnian War of the 1990s, the combined forces of nationalism, fascism, communism, and related ideologies caused the deaths of at least 120 million people worldwide. In this course, students will learn how political scientists, philosophers, religious leaders, and artists have attempted to answer modern history’s most perplexing question: how did the unprecedented *progress* of the modern era also produce *anti-progress*, that is, the most deadly and destructive period of human history, ever? Based in short, thought-provoking readings and in-class discussions, this course will help students make sense of history’s most notorious villains, by explaining how Nazis, Soviets, Communists, and new nationalists gained, maintained, and (often) lost the support of large segments of the world’s population – and why they used their power as they did.

### **Personal Finance (Grades 10-12, SEM-0.5)**

This course is designed around four distinct units: *Saving and Budgeting; Credit and Debt; Financial Planning and Insurance; and Income, Taxes, and Giving*. The focus in the class will be to enhance personal financial competencies and present essential knowledge and skills to make informed decisions about real world financial issues. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.

### **World History (9<sup>th</sup> grade, YR-1.0)**

Believing that an understanding of the past is fundamental to understanding the present, World History is designed to help students understand their place in the modern world as well as the forces that have shaped their own and other societies. A critical study of history promotes not only knowledge but also clear analytical thinking and writing skills. This course examines the growth of modern civilization, emphasizing the interrelationship of political, economic, social, and intellectual factors. Furthermore, emphasis is placed on developing reading skills and preparation for essay writing.

### **United States History (Grades 11-12, YR-1.0)**

US History is a survey course dating from the earliest times in United States history to the present. It concentrates on major political, social, economic, intellectual and cultural themes throughout the history of the United States. In addition to providing a basic narrative of events and movements, the goals of United States history are to gain an understanding of some of the principal themes in United States history and to strengthen one’s ability to analyze historical evidence.

### **AP United States History (Grades 10-12, YR-1.0, departmental recommendation)**

This college-level course covers American history from discovery to the present and includes a chronological presentation with emphasis on political, economic, cultural, and social influences. Critical reading, essay writing, and the analysis of historical documents are emphasized to prepare for the AP exam.

### **AP European History (Grades 11-12, YR-1.0, Prerequisite US History or AP US History, departmental recommendation)**

AP European History develops an understanding of the main themes in modern European history, including political and diplomatic, intellectual and cultural, and social and economic history. Analyzing historical evidence and reading critical literary narratives is integrated into the chronologically ordered whole picture of the modern history of Europe. The course focuses on cultural, political, economic, and social developments. Extra readings, critical thinking, and the study of historical documents are included to prepare for the AP European Exam. Using a college-level textbook, this course

begins with the Renaissance and concludes with the demise of communism in Eastern Europe, the reunification of Germany, and the crisis of global terrorism.

**AP Human Geography (Grades 11-12, YR-1.0)** AP Human Geography introduces high school students to college-level introductory human geography or cultural geography. The content is presented thematically rather than regionally and is organized around the discipline's main subfields: economic geography, cultural geography, political geography, and urban geography. The approach is spatial and problem oriented. Case studies are drawn from all world regions, with an emphasis on understanding the world in which we live today. Historical information serves to enrich analysis of the impacts of phenomena such as globalization, colonialism, and human–environment relationships on places, regions, cultural landscapes, and patterns of interaction.

## ***Mathematics***

(Four [4.0] units required for graduation)

### **Algebra I (9<sup>th</sup> grade, YR-1.0)**

Fundamental algebraic skills are taught in this course, including solutions of elementary equations, inequalities, and functions.

### **Algebra I Honors (9<sup>th</sup> grade, YR-1.0, departmental recommendation)**

All of the topics of Algebra I are covered in more depth and expand into Algebra II. In addition, functions, graphing, quadratic equations, probability, logarithms, binomial expansion, complex numbers and trigonometry are taught. This course is a prerequisite for Honors Geometry.

### **Geometry (10<sup>th</sup> grade, YR-1.0)**

Students are taught a Euclidean plane and solid geometry course, with more emphasis on application than found in a traditional course. Students explore various geometric theorems and postulates and use them to prove other mathematical concepts.

### **Geometry Honors (10<sup>th</sup> grade, YR-1.0, departmental recommendation)**

Besides the standard Euclidean course, students are taught formal logic and abstract deductive thinking. Students are also taught a full quarter of analytic geometry, including families of curves, conic section, rotation of axes, and transformations.

### **Algebra II (11<sup>th</sup> grade, YR-1.0)**

This course involves a thorough study of the algebra and geometry of first and second degree equations, followed by an introduction to exponential, logarithmic, polynomial, and trigonometric functions.

### **Algebra II and Trigonometry Honors (11<sup>th</sup> grade, YR-1.0, departmental recommendation)**

This course is an intense study of elementary functions and their properties. In addition, theory of equations, transcendental functions, sequences, matrix algebra, circular functions, polar coordinates, and probability are covered.

### **Algebra III and Trigonometry (12<sup>th</sup> grade, YR-1.0)**

This course is a continuation of topics begun in Algebra II, plus an introduction of topics in college algebra and trigonometry. The course begins with sequences and series and expands into algebraic concepts including graphing, rational functions, complex operations and matrices.

### **Pre-Calculus Honors (12<sup>th</sup> grade, YR-1.0, departmental recommendation)**

This is the terminal course for the non-AP student. It covers trigonometry, sequences, probability, fundamental statistics, exponential functions, and an introduction to calculus.

### **AP Calculus (12<sup>th</sup> grade, YR-1.0, departmental recommendation)**

This AP course covers all of the topics of two semesters of college Calculus, including differentiation, related rates, curve sketching, finding extreme, integration, infinite sequences, elementary differential equations, areas, and volumes.

## ***Physical Education***

**Strength and Conditioning (Grades 9-12, SEM-0.5)** This course is designed to provide students the opportunity for the development of strength and conditioning for various fitness levels & sports. Strength, speed, agility, flexibility, & conditioning concepts/techniques will be used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn the basic & advanced fundamentals of speed-strength, aerobic, anaerobic, & overall functional fitness training. This course includes activity sessions daily. Students also will be empowered to learn proper techniques to help bring out their full potential. Safety precautions and proper application of the Principles of Training will be emphasized. A plan to achieve goals will be developed and implemented during this course and students will leave the program with the skills, knowledge, discipline, and desire to develop and implement an individual fitness program, which is functional & balanced.

### **Health and Wellness (Grades 9-12, SEM-0.5)**

The content of the course includes seven standards: *Disease Prevention and Control; Nutrition; Substance Use and Abuse; Mental/Emotional/Social Health; Sexuality and Family Life; Safety and First Aid; and Personal Fitness*. Each content area is addressed in a classroom and/or physical activity setting. Personal Fitness and Nutrition will be emphasized and integrated throughout the course. Students are provided opportunities to explore how content areas are interrelated. Students acquire knowledge and skills necessary to make informed decisions regarding their health and well-being throughout their lifetime.

### **Yoga(Grades 10-12, SEM-0.5)**

The tools of yoga and mindfulness offer proven methods of developing the inner resilience needed to navigate physical, mental and emotional stress. The techniques taught in this course can increase students capacity to learn effectively, manage challenging emotions, self-regulate behavior, and achieve personal and academic success. Our School Yoga program offers a unique way of combining yoga and mindfulness practices in a straightforward and intentional way. Each session will offer five elements: Connect, Breathe, Move, Focus and Relax. Within these elements students will be taught fundamental life skills that are immediately available for daily use.

## ***Science***

(Three [3.0] units required for graduation, including Biology, Chemistry, and Physics)

### **Anatomy and Physiology- (12th grade, YR-1.0)**

This course explores the structure and function of all systems and stresses the interaction of systems to support and maintain a complex individual. Current research and community resources are used to enhance learning.

### **Biology (9<sup>th</sup> grade, YR-1.0)**

Biology, required for graduation, is the study of life at various levels of organization. The course examines the processes and structures found within individual organisms, the diversities and similarities among the Earth's life forms, the interaction of these life forms with one another and with the environment, and man's role as the dominant life form in the biosphere.

### **Biology Honors (9<sup>th</sup> grade, YR-1.0, departmental recommendation)**

The course examines life at all levels. Students first become aware of and begin to understand the biochemistry occurring in living cells, such as the chemiosmosis theory and the role of photosystems in photosynthesis. A major emphasis is placed on the genetic material of living cells-DNA. Students will not only be able to understand its importance in heredity but will also gain an understanding of how it controls cellular function. Structure as it relates to function will be studied at

the molecular, cellular, and organism levels. Students will explore the relatedness of all living things as they explore commonalities revealed in genetic material using computer programs, such as BLAST. Emphasis is placed on collecting and analyzing data from laboratory experiences.

### **AP Biology (Grades 11-12, YR-1.0, Prerequisite: Chemistry, departmental recommendation)**

This course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. The curriculum centers around Four Big Ideas: The process of evolution drives the diversity and unity of life. Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis. Living systems store, retrieve, transmit and respond to information essential to life processes. Biological systems interact, and these systems and their interactions possess complex properties. Students will develop advanced inquiry and reasoning skills such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains.

### **Chemistry (Grades 10-11, YR-1.0, Prerequisite: Biology)**

Required for graduation, this laboratory-oriented course will include: laboratory safety and apparatus, measurement, problem solving, matter, energy, structure of the atom, electron configurations, chemical formulas and their mathematics, periodic table, chemical equations and their mathematics, phases of matter, gas laws, solutions, chemical kinetics, thermodynamics, chemical equilibrium, and acids and bases. Written lab reports will be required as well as cumulative quizzes.

### **Chemistry Honors (Grades 9-10, YR-1.0, Prerequisite: Biology or departmental recommendation)**

This course, which uses a college textbook, covers laboratory safety and apparatus, lab procedures, measurement, atomic structure, periodic table, types of chemical reactions and reaction prediction, stoichiometry, solution stoichiometry, gases, thermochemistry, acids and bases, organic chemistry, nuclear chemistry, and chemical reactions that include precipitation, acid-base, and oxidation-reduction reactions. Written lab reports will be required as well as cumulative quizzes.

### **AP Chemistry (Grades 10-12, YR-1.0, Prerequisite: Honors Chemistry, departmental recommendation)**

This college-level course is for students who have demonstrated outstanding ability in Honors Chemistry. The course, based on the expectation of the College Board, will include atomic structure and periodicity, bonding, liquids and solids, solution chemistry, chemical kinetics, chemical equilibrium, acids and bases, applications of aqueous equilibria, spontaneity, entropy, free energy, electrochemistry, and coordination chemistry. The course will be lab-intensive, and college textbooks will be utilized. Written lab reports will be required as well as cumulative quizzes.

### **AP Environmental Science (Grades 11-12, YR-1.0, Prerequisite: Biology and Chemistry)**

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

### **Physics (Grades 11-12, YR-1.0)**

This course is an introduction to the fundamentals of physics with an emphasis on the application of these concepts to situations students encounter every day outside the classroom. Topics covered include: motion, forces, projectiles, momentum, energy, satellites, waves, sound, light, color, mirrors and lenses, lasers, holograms, electricity, magnetism, and relativity. Class time is divided between lecture, demonstrations, question/answer sessions, and laboratory work. Computer interfacing and other lab equipment are used to investigate topics such as: where projectiles will land, how seat belts and airbags reduce injuries, how speed affects stopping distance, the types of images produced by mirrors and lenses, how electric circuits work, and how motors and generators work. The goal of this course is to help students apply what they learn to the world they see around them and to understand how that world works.

**Physics Honors (Grades 11-12, YR-1.0, Prerequisite: Algebra II or Honors Geometry, departmental recommendation)**

This course is an introduction to the main principles of physics. Topics covered include: Newtonian mechanics, waves, optics, electricity, and magnetism, with some time spent on modern topics, such as, lasers, holography, and relativity. These topics are covered at a faster pace and with a stronger emphasis on problem solving than in the college prep course. Class time is divided between lecture, demonstrations, question/answer sessions, problem solving session, and laboratory work. Laboratory exercises utilize computer interfacing to investigate motion, forces, energy, momentum, circular motion, heat transfer, sound waves, reflection/refraction, and direct current circuits. Lab reports are required and emphasize collecting and analyzing data, drawing appropriate conclusions and communicating these results with others.

**AP Physics (Grades 11-12, YR-1.0, Prerequisite: Honors Algebra II, departmental recommendation)**

This course is equivalent to a first semester algebra-based college physics class. The emphasis is on understanding the fundamental concepts in physics and utilizing those concepts and related formulas to solve problems. Topics covered are: Newtonian mechanics, rotation, electricity and magnetism, and waves and sound. Class time is divided between lecture, demonstrations, question/answer sessions, problem solving sessions, and laboratory work. The emphasis in the laboratory is on understanding how to analyze data through calculations, fitting lines and curves to data points in graphs, and making extrapolations and interpolations from data. Students should be able to analyze lab error appropriately and draw inferences and conclusions from experimental data.

**Forensic Science (Grades 11-12, Spring SEM-0.5)**

This course will integrate the student's prior science coursework into practical application in the area of forensics. The topics for this course include: an introduction to forensic science and the law, types of evidence, the crime scene, fingerprints, hair, fibers, drugs, toxicology (poisons and alcohol), trace evidence, soil and glass analysis, blood, DNA analysis, forensic entomology, human remains, firearms, toolmarks and impressions, and document and handwriting analysis.

**Lab Technology (12<sup>th</sup> grade, SEM-0.5, Prerequisite: Department Recommendation, Interview)**

The students will prep labs, organize materials, and assist in teaching labs. One qualifying student will be selected each semester in each of the following areas: Biology, Chemistry, and Physics. Students who request this course will be interviewed and the department will select one student in each area. The student would be under the supervision of Jane Ramer and the classroom teacher.