

## **Mission Statement**

Saint Mary High School's tradition of commitment to Catholic education extends to students in Grade 9 through Grade 12. Our mission is to provide a safe, nurturing, and challenging environment where excellent teaching, use of current resources, and a curriculum of standards and innovation develop effective communication, independent thinking and creative problem solving. We strive to instill in our students sound moral and spiritual values enabling them to live in a culturally diverse world.

## **Introduction**

This guide contains courses listed alphabetically by departments. Each course is described and if there are prerequisites they are stated. The curriculum is composed of courses which prepare students for college acceptance and/or other types of post-secondary education.

### **Freshman Program:**

Theology – Algebra I – Algebra I Honors – Geometry – Geometry Honors – Biology – Biology Honors – English – English Honors – Fundamentals of Art – Italian I – Physical Education/Health/Introduction to Technology – Spanish I – Spanish II – World History – World History Honors – Community Service

### **Sophomore Program:**

Theology – Algebra II – Algebra II Honors – Geometry – Geometry Honors – Chemistry – Chemistry Honors – English – English Honors – Fundamentals of Art II – Physical Education/Drivers' Education/Introduction to Technology – Spanish II – Spanish III – Italian II – U.S. History I – Advanced Placement U. S. History I – Community Service

### **Junior Program:**

Theology – Anatomy and Physiology – English – English Honors – Algebra II – Algebra II Honors – Physical Education/First Aid – Physics – Physics Honors – Pre-Calculus – Spanish III – Spanish IV – U.S. History II – Advanced Placement U.S. History II – Italian III – Community Service

### **Senior Program:**

Theology – Pre-Calculus – Calculus – A.P. Calculus – English – English Honors – A.P. English – Physical Education/Life Skills/Financial Literacy – Integrated Mathematics – Statistics – A.P. Environmental Science – Spanish IV – A.P. Biology – A.P. Chemistry

**Electives:**

Accounting I – Accounting II – Advanced Drawing – Advanced Painting - Portfolio Art – Film Study – Psychology – Sociology – Journalism – Forensic Science – Graphic Design – Economics – Current Events – Environmental Science – Sports Psychology – Creative Writing – Astronomy – Introduction to Drawing – Introduction to Painting – Theater Acting and Directing

**Note: All students taking Advanced Placement courses are required to take the A.P. Final Exam upon the completion of the course. There is a fee for each exam which is the responsibility of the parent/guardian.**

**Graduation Credits**

Religion	20 credits
English	20 credits
Mathematics	20 credits
Social Studies	15 credits
Science	15 credits
World Languages	10 credits
Financial Literacy	5 credits
Fine or Applied Arts	5 credits
Technology	Integrated throughout all courses
Physical Education	20 credits
Electives	15 credits

**Change in Academic Level:**

For a student to move up to an honors level or an advanced placement program, the following criteria must be met:

- an average of 90 or above for the prior class, and
- a written recommendation from the teacher that details the student's level of curiosity, creativity, motivation, ability to think abstractly, and performance on homework, projects, tests and quizzes.

A student may move down a level if he or she has consistently worked to their potential and completed all assignments but still experiences significant difficulty with the course as evidenced by grades of 70 and below. A final decision on whether a student moves down a level will be made at the end of the first quarter or at the end of the school year. To remain in an honors level course or an Advanced Placement program, a student must maintain an average of 80.

## **ENGLISH DEPARTMENT**

Skills in organization, studying techniques, test taking, memory development and research are taught, as well as grammar, vocabulary skills, writing skills and PSAT/SAT/ACT preparation. An extensive research paper is a requirement in all English courses.

### **English 9**

In this introductory course, students begin a four-year study of literature, writing, vocabulary and grammar. The literature focuses on genre (fiction, poetry, and drama), with emphasis on works such as *To Kill a Mockingbird*, *A Mid-Summer Night's Dream* and the poetry of Langston Hughes. The writing program includes the writing process of research, pre-writing, drafting, revising and editing. Students gain proficiency in the short essay and its method of development and write regularly in a journal. Weekly lessons in vocabulary and grammar are integrated into the curriculum.

### **Honors English 9**

This course provides students with a survey of literature which includes the study of the short story, novel, essay, epic, drama, and poetry. Due to the intensified level, students are challenged to go beyond interpretation of literary pieces. The writing program includes the writing process of research, pre-writing, drafting, revising, and editing. Application and analysis of material is required along with cooperative presentations which stimulate their creative intellect.

### **English 10**

This course not only provides a brief overview of Early American literature but also surveys the beginning of the modern age as well. Students will examine the works of such distinguished authors as Ambrose Bierce, Herman Melville, Jack London, and Willa Cather. Additionally, students will focus on the development of the essay and the various components that make up a research paper.

### **Honors English 10**

This course will focus on the development of America as a cultural power. It will trace America from its literary beginnings through its growth as innovator to its position in today's world. Students will also be exposed to the art and music of the time. Native American history and writing will also be addressed. Periods of history will be discussed following the reading of period novels.

### **English 11**

The course goes beyond the uniformity of early American literature to focus on the diversity of writers and styles of the 19<sup>th</sup> and 20<sup>th</sup> centuries. Students will reflect on the life, manners, morals, national character and aspirations of American culture. It includes the reading of plays (*Our Town*, *A Raisin in the Sun*), novels (*The Great Gatsby*), and poetry (Ezra Pounds, T.S. Elliot, Langston Hughes, Robert Frost). There will be an intense concentration on vocabulary and reading comprehension in preparation for the SAT and ACT tests. Language skills of perceptive reading, cogent writing, effective speaking, attentive listening, and incisive thinking in problem – solving situations are also developed at this level. All Juniors are required to do a research paper.

### **Honors English 11**

The first of a two-year Advanced Placement Program, the course will enable students to further develop writing, reading, and critical thinking skills. A comprehensive study of British literature will enable the students to independently analyze poems, short stories, nonfiction, drama and novels. In addition to extensive daily reading from the text, the students are required to fully participate in independent reading and research assignments.

## **Grade 12**

This course is organized chronologically to present the literature of Great Britain in a historical context. Areas of concentration include: the Anglo-Saxon Period, the Medieval Period, the English Renaissance, the Seventeenth Century, the Restoration, the Eighteenth Century, the Romantic Age, the Victorian Age and the Modern Period. Students will analyze and discuss selected works. Additionally, students will be able to identify and discuss the literary elements. Research papers are required.

## **Honors English 12**

This course is a survey of some of the major works of literature from around the world. Students will read world masterpieces that deal with different aspects of human identity throughout history. Through literature, students will increase their awareness of cultures; sharpen their critical reading, thinking and writing skills; and deepen their cultural sensitivity. Types of work studied include drama (*Antigone*, *A Doll's House*) the novel (*A Thousand Splendid Suns*), poetry ("Dry Your Tears Africa", "Serene Woods") and the short story ("Downtown", "The Guest", "The Bet"). Research papers are required.

## **Advanced Placement English 12**

Students are involved in both the study and practice of writing in addition to the study of literature. This course equips students with skills in stylistic analysis of prose passages. Additionally, students will further develop effective critical analysis through extensive course reading. Emphasis is placed on the resource of language: connotation, metaphor, irony, syntax, and tone. Types of work studied include drama (*Antigone*, *Death of a Salesman*), the novel (*Pride and Prejudice*, *The Kite Runner*), poetry (Wordsworth, Yeats, Sandburg, Elliot) and the short story ("The Rocking-horse Winner", "A+P", "The Lottery", "A Clean, Well-Lighted Place"). All students are required to take the Advanced Placement Examination in May and to pay the fee for the test.

## **Journalism – Grade 11/12**

Yearbook journalism combines academic class work with hands-on experience in writing, graphic arts, design, leadership, and computer desktop publishing at a professional level. Students will act as staff members and learn the various applications of the publication process. Students will learn the skill of layout and design, copy writing and photography. Students are responsible for meeting publication deadlines. The elective is open to juniors and seniors.

## **Film Study – Grade 11/12**

This course is intended to make the student more aware of the history and techniques of film as a medium for the communication of ideas. By examining a series of significant films, the student becomes a more

knowledgeable, and a more critical viewer. The course is designed in two parts. The first half is designed for students to explore and gain an appreciation for the authors whose contributions to detective fiction had a major impact on the films that emerged from Hollywood after World War II. The second half will introduce the world of Science Fiction from its early beginnings to contemporary times. By viewing selected films, students will learn the structure, theme, characterization and visual design typical of Film Noir and Science Fiction.

## **Creative Writing**

In this course, students will explore the basic foundations of creative writing techniques. The goal of the course is for students to find their own, unique, authorial voice. Students will engage in writing workshops ranging from brainstorming to a final publication along with shared class readings. In addition to the writing, students will be expected to read and analyze works for various genres to aid in their creative thinking and communication process. By the end of the course, students will have a finalized portfolio and the skills to publish their work outside of an academic setting.

## **Fine Arts Department**

The visual and performance art courses being offered present students with the opportunity to develop skills in a variety of media and explore self-expression. Courses are designed to allow the students to continuously advance their skills.

### **Fundamental of Arts I – Grade 9**

This course is a required quarter long course for all freshmen. Students will be introduced to a variety of skills while experimenting with different media and art history. The students are encouraged to discuss artworks of famous artists who excelled in these media and art movements. This course encourages empathy and creative thinking.

### **Fundamental of Arts II – Grade 10**

This course is a required quarter long course for all sophomores. The course will continue from the previous year, further developing the student's personal expression through art. A wider variety of media will be used in this course and emphasis is placed on applying the principles and elements of design.

### **Introduction to Drawing – Grades 11 and 12**

This is a half year course that will further explore the student's interest in specific methods of drawing and will advance their drawing skills. Gesture, still-life, contour, and drawing from the form will all be explored. A variety of media will be used to further define the student's personal style and creativity.

### **Introduction to Painting – Grades 11 and 12**

This half-year course is intended to further develop the student's skills in a variety of painting media. Proper methods of painting and artists who excelled in different media and art movements will be explored. Students are motivated to develop their personal styles and creativity.

### **Theater Acting and Directing – Grades 11 and 12**

This is a year long course designed to present students with various opportunities in speech, performance, and production. All aspects of performance are covered, including acting styles, directing, stage combat, and theater history. Through frequent active participation, students will develop skills in public speaking, body movement, and self-expression.

### **Advance Drawing and Painting**

Students wishing to take this course will work uniquely and creatively. They will be doing advanced assignments while working more independently and creatively. This course will employ every student to create an art portfolio.

## **Mathematics Department**

The philosophy of the Mathematics Department is to enable all its students to achieve mathematical skills, understandings, and attitudes that they will need to be successful in their careers and daily lives. Students are prepared for careers in the twenty-first century, especially in the field of mathematics. Graphing calculators are required of all math students.

### **Algebra I**

This course provides mathematically sound and comprehensive coverage of the topics considered essential in Algebra. The strategy of the course is to enforce the student's mastery of math skills such as basic operations, solving equations, and evaluating algebraic expressions and functions.

### **Algebra I Honors**

This course ensures students' understanding of the relationship between oral and written communications. It provides the ideas of algebra in compact form with extensive use of mathematical symbols that are applied in the solution of a wide variety of problems. The curriculum gives the students confidence in solving word problems independently and helps them develop their reasoning power. Evaluating expressions and functions, using properties of operations, and solving equations algebraically and graphically are skills developed in this course. Quadratic equations and evaluating radical expressions are explored.

### **Algebra II**

The main goal of the course is to ensure that students master key algebra skills, solve any equation or inequality and have a good foundation of the concept of function. The course emphasizes graphing and the relationship between graphs and equations. Algebra II has been designed to make math accessible and inviting to a wide range of students regardless of their future career goals. Students will review all algebraic methods while using technology and developing proficiencies and strengthening the understanding of underlying concepts.

### **Algebra II Honors**

This course is essential for students who have an aptitude in math and want to continue with advanced placement math. There is an emphasis placed on word problems to develop the student's ability to translate physical situations into mathematical sentences. The students will be able to solve equations involving rational expressions, radical expressions, quadratic functions, and exponential and logarithmic functions. The student will enhance their ability to reason analytically. SAT and ACT material is also reviewed throughout the course.

## **Geometry**

This course emphasizes reasoning and logical thinking. It balances coordinate synthetic and transformational geometry. The course integrates technology as a problem-solving tool. Geometry is connected to Algebra, Data Analysis, Probability, Trigonometry, and Discrete Mathematics.

## **Geometry Honors**

This course emphasizes reasoning and logical thinking. It balances coordinate, synthetic and transformational geometry. The course integrates technology as a problem-solving tool. Geometry is connected to algebra, data analysis, probability, trigonometry and discrete mathematics. The honors course is intended for students who enter with strong mathematical and problem-solving skills and who can understand new concepts quickly. The course covers all recommended material. The daily assignments include all material and Algebra II Honors in the core course plus additional exercises that focus on higher-order thinking skills.

## **Integrated Mathematics**

This is a course that provides a general survey of mathematical topics that are useful in our contemporary world. Students will acquire knowledge of fundamental mathematics. Students will understand and reason with quantitative issues and mathematical ideas they are likely to encounter in college, career, and life. Students will develop problem-solving skills, while fostering their critical thinking. Topics, such as, statistics, probability, number theory, algebra equations and graphs, geometry, and personal finance will be covered.

## **Pre-Calculus**

This course is designed for students who have a strong foundation in Algebra II and Geometry. Taught at a fast pace, the course prepares students for Advanced Placement Calculus. For those students who have the mathematical maturity to delve into the depths of complication, the experience will be challenging and

rewarding. This course is required for students who seek to enroll in the Advanced Placement Physics course.

## **Calculus**

This course is taught with significant attention to precision and detail. It is intended for students who are interested in the theory and application of calculus including limits, The Fundamental Theorem of Calculus, methods of derivation and integration and a large set of tools for simplifying and resolving more complex calculus expressions. It appeals to those who have a strong interest in applied mathematics or physics. Applicable technology is highly incorporated in this course.

## **Advanced Placement Calculus**

This course offers a challenge to students who have a keen interest in mathematics. Calculus is the mathematics of change of velocities, accelerations, and rates. It is also the mathematics of tangent lines, arc lengths, areas, volumes, centroids, and curvatures. Calculus is a variety of concepts that have enabled scientists, engineers, and economists to model real life situations. Calculus is a reformulation of pre-calculus mathematics through the use of a limit process that generates the two parts of calculus: differentiation and integration. It requires an in-depth mastery of principles and applications of the complete high school mathematics program and an enthusiasm to delve into more complex problems, which offer opportunities for mental discipline, as well as enrichment in the field. All students are required to take the Advanced Placement Examination in May and to pay the fee for the test.

## **Statistics**

This course provides preparation for a college level statistics course. Topics will include but are not limited to data analysis, probability, normal and binomial distribution, and hypothesis testing. Students will use exploratory methods to identify patterns and make decisions. Emphasis will be placed on applications and the use of statistics to solve real-life problems.

## **Physical Education Department**

Physical Education is a unique approach toward the education of the individual. It is a composite program designed to coordinate and foster the physical, social, emotional, and intellectual development of individuals in order that they may be better able to approach life's problems. As physical activity is the core of the program, it becomes the main medium through which the physical educator works and through which the educative process takes place. Through a careful selection and arrangement of various activities, a substantial contribution can be made toward the total education of individuals as they progress through situations involving themselves, the group and society. The students are then given the opportunity of experimenting in a laboratory of life situations.

### **Grade 9**

#### **Health**

Health Education is concerned with the student's physical, mental, emotional, and social well-being. The primary responsibility is to provide information that assists students in developing concepts and behaviors that will encourage the formation of safe and personal health practices. The topics discussed at this level are as follows: Your Health and Wellness, Making Healthful Choices, Physical Fitness and Your Health, Nutrition, Mental and Emotional Health, Family and Social Health, Body Systems, Growth and Development, Medicines and Drugs, Diseases and Disorders, and Consumer and Environmental Health.

### **Grade 10**

#### **Driver Education**

The primary purpose of Driver and Traffic Safety Education is to save lives and reduce motor vehicle accidents through the education of future highway users. The goal of this course is to instill in students' knowledge of the laws and regulations of the New Jersey Motor Vehicle Code. Topics such as the Practice of Defensive Driving, the Mechanical Workings of the Automobile and the Legal and Financial Responsibilities of a Licensed Driver will be explored. The State Driver's Examination is administered at the completion of the course. A score of 80 percent or better is required to participate in any Behind-the-Wheel Programs.

## **Grade 11**

### **First Aid**

Accidents occur at all times and all places and are the number one killer of people between the ages of one and thirty-eight in the United States. This loss of our greatest national resource makes it essential that all students receive intensive instruction in the theory and practice of First Aid. Everyone should know how and what to do in case of emergency caused by an unfortunate accident or sudden illness, either at home, in school, or in the community.

## **Grade 12**

### **Life Skills**

This course prepares students for the responsibility of making decisions by learning life management skills. Personal and life skills, including an understanding of self and relationships with others, as well as skills related to Work, Money, Material Objects, Nutrition, and Leisure Time, will be emphasized.

### **Financial Literacy**

In this course, students will develop the skills and concepts needed to gain personal and financial responsibility. The class will cover such topics as savings, investments, debt management, investing, protecting assets, and income tax. The goal of the course is to help students become educated consumers.

### **Sports Psychology**

Sports Psychology is the scientific study of how individuals behave in sport and exercise, and the practical application of the knowledge to performance enhancement strategies. Students in this course will investigate human behavior patterns in sports and exercise settings. Human behavior is complex, dynamic, and social. There are no easy answers when you try to determine why people behave in a certain fashion. The following topics will be covered: biological and psychological models of personality structure, motivational orientations, psychological interventions, and social dynamics in sports.

## **Religion Department**

It is the special function of the Catholic school to develop in a school community an atmosphere animated by a spirit of liberty and charity based on the Gospel. It enables young people to grow at the same time in that new life which has been given them in baptism.

## **Grade 9 – Semester 1**

### **Introduction to Catholicism**

This course will prepare the students to adapt to the learning environment of Theology. It also intends to familiarize the students who are part of other faiths to learn what Catholics believe. The course prepares the students for a higher level of Theology. In addition, this course will not only examine the aspects of faith, but also the aspects of Catholic intellect based on Scripture and Tradition. It will cover the Holy Trinity, the teachings of Jesus, the significance of Mary, and the saints in the Holy Roman Church.

## **Grade 9 – Semester 2**

### **Paschal Mystery**

The purpose of this course is to help students understand all that God has done for us through His Son, Jesus Christ. It will examine the purpose of incarnation and the two natures of Jesus: divine and human. It will examine the events during the ministry of Jesus, including His preaching, healings, and how these events reflect the mission of Jesus to the world. Lastly, this course will examine the narratives of how the Passion, Death, Resurrection, Ascension, and how these events bring humanity to Redemption and Reconciliation with God.

## **Grade 10 – Semester 1**

### **Ecclesiology**

The purpose of this course is to provide knowledge about the purpose of the institution of the Church by Jesus. Students will be introduced to the fact that the Church continues to flourish for almost two thousand years with the guidance of the Holy Spirit. This will help students understand why the Church is One, Holy, Catholic and Apostolic. In addition, they will examine how the Church transmits the faith through Scripture and Tradition, and how it relates to the salvific plan of God. Finally, they will come to know, not only about the life of the Church, but also the sacred nature of the Church including the role and the purpose of hierarchy.

## **Grade 10 – Semester 2**

### **Liturgy and Sacraments**

This course allows students to understand how Catholics encounter Christ through the seven Sacraments. By examining each Sacrament, students will explore its biblical basis which could be traced back to the Old Testament and its institution by Jesus. Students will examine the rites, and how it is performed both in Western Catholicism and Eastern Catholicism as well as the effects the Sacraments as an experience of the vision of heaven. Finally, this course will cover the challenges both the minister of the Sacrament and the recipient may face, that could both impede, and which could ultimately result in the invalidation of the Sacrament.

## **Grade 11 – Semester 1**

### **Christian Morality**

This course will extensively examine the Ten Commandments and the Beatitudes. These laws will enable the students to reflect on their personal growth as people who are made in the image and likeness of God. It will help the students to navigate various obstacles and challenges through Catholic moral perspective. Throughout their lives, they will have to make various decisions that can either help or hinder their growth as Christians. Thus, the students will be able to approach these matters with a Christian based approach and response that is expected of followers of Jesus.

## **Grade 11 – Semester 2**

### **Catholic Social Teaching**

This course reinforces Christian Morality but with focus on the reality of the problems that have roots from the period of the Old Testament. It also answers to the call of Blessed John XIII to incorporate the Catholic Social Teaching to Catholic high school education. The emphasis of this course is on the understanding of the challenges of the contemporary world and how the Catholic Church addresses these challenges. Students will be introduced to the Catholic Social teaching that is primarily composed of encyclical letters and cover the issues of wealth and poverty, law, justice, peace, war, humanity, freedom and obligations.

## **Grade 12 – Semester 1**

### **Church History**

This course is a comprehensive examination of the history of the Catholic Church. This includes major events in the history of the Church beginning from the life of the founder, Jesus Christ. This course will examine the role of the Church throughout history and how members of the Church, from the Pope to the ordinary lay people, transformed and shaped the society to what it is today whether for better or for worse. In addition, this complex examination of the history also helps the students understand about what really happened in the history of the Church to avoid falling into the false narratives against her. Finally, this course helps the students debunk the myths that surround the Church from the time of her foundation.

## **Grade 12 – Semester 2**

### **Faith and Science**

This course is not reconciliation but a complex examination of faith and science. It will examine the role the Church has played since the beginning of her existence. This course will help students to understand how faith plays a role in the scientific world. The topics will include major contributions of the Church in the scientific world such as Astronomy, Mathematics, Biology, and more. In addition to these topics, this course will also cover the reconciliation of evolution and creationism, and the rhetoric which sprang up that made faith and science appear to contradict one another.

## **Grade 12 – Semester 1**

### **Sacred Scripture: Old Testament**

This course is an examination of the Old Testament, beginning from the Book of Genesis to the Deuterocanonical. It provides an overview of the Sacred Scripture based on the theological principles for understanding and interpretation of it. The focus of this course is how these events point us to the message of Salvation, such as the Incarnation and Paschal Mystery. Each book reveals a hidden path that plays in the saving plan of God. This course will highlight the themes that constitute the Salvation History. The aim of this course is to engage students into appreciation of the Sacred Scripture, its beauty, as the source of spiritual insight, moral template, and how an individual is given virtue of hope.

## **Grade 12 – Semester 2**

### **Sacred Scripture: New Testament**

This course is the culmination of the course in Sacred Scripture. The aim is to reveal Jesus as the fulfillment of the prophecies of the Old Testament. This course will also examine the connection between the Old Testament and the New Testament. Just like the Old Testament course, it provides an overview of the Sacred Scriptures based on the theological principles for understanding and interpretation of it. This includes the historical overview of Israel during the time of Jesus, the culture, way of life, and other matters that influenced the writers of the New Testament.

## **Science Department**

The science program will prepare each student to become knowledgeable citizens who are able to make informed decisions in a technological society. All students will have the opportunity to study science in an interesting and worthwhile way that will open their minds to new outlooks and equip them with the intellectual skills that will guide their learning for the rest of their lives.

### **Biology**

This class will introduce the students to the biology of the cell and the processes that take place on the cellular level. It includes a survey of organisms in each of the five kingdoms, including their phylogeny. The application of biological content to real life situations is emphasized. Laboratory experiences are included in the course.

### **Honors Biology**

Honors Biology will cover much of the same information as Biology class, but some topics will be explored more thoroughly. This class will introduce the students to the biology of the cell and the processes that take place on the cellular level. It includes a survey of organisms in each of the five kingdoms, including their phylogeny. The application of biological content to real life situations is

emphasized. They will move through some of the material at a quicker pace than the other classes. Additional course work may also be assigned. Laboratory experiences are included in this course.

### **Advanced Placement Biology**

This course provides students with a general overview of biological science. It includes an in-depth study of cellular processes, genetics, evolution, and ecology. The AP Biology course is designed to be the equivalent of the general Biology course usually taken during the first college year. Laboratory experiments will be used to explore these topics further.

### **Chemistry**

The course explores the experimental, conceptual, and mathematical aspects of chemistry. It is designed to stimulate students' interest in science and present the information and skills they need in today's world. The concepts are made easily accessible by developing them in a logical rather than a chronological fashion. The topics discussed include the metric system of measurements, matter and changes of matter, electron configurations, stoichiometry and gas laws. Simple lab experiments are performed through the course.

### **Chemistry Honors**

This course is an in - depth exploration of the subject of chemistry both in conceptual and mathematical aspects. The presentation emphasizes the fundamental concepts. The approach is descriptive and works on the knowledge of the concepts and of the relationships of the concepts to one another. The topics discussed include the metric system of measurements, matter and changes of matter, electron configurations, stoichiometry and gas laws. Simple lab experiments are performed throughout the course.

### **Advanced Placement Chemistry**

This is an academic, quantitative chemistry course. Chemistry is the study of atoms and molecules and how they interact according to the physical laws. Such study is applicable to everyday life. Topics include the structure of matter, states of matter, reactions, descriptive chemistry, and chemical calculations. All students are required to take the Advanced Placement examination in May and to pay the fee for the test.

### **Physics**

This course is designed to introduce physics to students with a wide range of backgrounds and abilities. It shows how physics is related to their lives and the world around them. The course offers a balance of

conceptual development and quantitative applications covering motion, forces, thermodynamics, waves and electromagnetism. Mathematics is the language of physics used in measurement and problem-solving techniques. Laboratory experiments, calculators, and computers are central to students' success in the course.

### **Advanced Placement Physics**

This course follows the Advanced Placement curriculum for Physics "B". It presents in-depth study foundations of Physics. The mathematical techniques used in the course are algebra, geometry, and trigonometry, but not calculus. The main objectives of the course are to provide the student with a clear and logical presentation of the basic concepts and principles of physics, and to strengthen an understanding of the concepts and principles through a broad range of applications to the real world. The subject covers Newtonian mechanics and the mechanics of fluids, heat and thermodynamics, wave motion, sound and optics, waves electricity and magnetism, and finally, and introduction to relativity, quantum physics and nuclear physics. All students are required to take the Advanced Placement Examination in May and are required to pay the fee for the test.

### **Anatomy and Physiology**

This course presents a comprehensive study of the anatomy and physiology of the various systems in man. It will also deal with embryological and fetal development, as well as human genetics. Laboratory experiences are coordinated with the various topics.

### **Environmental Science**

This course is designed to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative and sustainable solutions for resolving and /or preventing them. Students will be expected to complete laboratory experiments, case studies, and outside reading. A research paper will be assigned.

### **Advanced Placement Environmental Science**

This course is designed to be the equivalent of an introductory college course in environmental science. Students will engage 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.

### **Astronomy**

In this course, students will conduct laboratory and field investigations, use scientific methods, and make informed decisions using critical thinking and scientific problem solving. Students will study the following topics: astronomy in civilization, patterns and objects in the sky, our place in space, the moon, reasons for the seasons, planets, the sun, stars, galaxies, cosmology, and space exploration.

## **Forensic Science**

Students will learn the methodology needed to evaluate a crime scene, the proper lab mechanics needed to evaluate a crime scene, the proper lab mechanics needed to evaluate evidence, and how to compare between a known and unknown. Students will learn how DNA, fingerprinting, and other forensic tests can be used to solve a crime. The learning strategies used will include lecture, labs, research, activities, and videos.

## **Social Studies Department**

In order for a democratic system to survive, citizens must maintain a level of participation in public life and have a general concern for the common good. Effective social studies programs prepare students to responsibly address the forces that pull our society apart and hold it together. We look to the past in order to benefit the future. Through social studies, students will understand that which has combined to influence the course of humanity and learn how conflict and struggle were resolved, how tolerance was promoted, and how they may be able to improve social growth.

## **World History**

World History is designed to give students an opportunity to learn about the start of different civilizations and growth of cultures throughout the world. Beginning with Prehistory and Stone Age people, a wide variety of civilizations are studied leading up to the Renaissance and Reformation. Examples of topics covered include Ancient Egypt, Ancient India and China, Ancient Greece, Ancient Rome, Ancient Africa, the Americas, as well as Sumerian Civilizations and Medieval Times. Along with the tests and quizzes, students are required to complete two research projects throughout the year. Current events are also incorporated into the curriculum and comparisons are made to ancient times with today's society.

## **World History Honors**

World History Honors is designed to give students an opportunity to learn about the start of different civilizations and the growth of cultures throughout the world. Beginning with the Prehistory and Stone Age people of a wide variety of civilizations are studied leading up to the modern world. Students will begin this one-year course studying the four ancient river valley civilizations (Mesopotamia, Egypt, China, and Indus Valley). The curriculum will take students through the Greek and Roman Empires, studying governmental structures, the impact of geography and the lasting influence of these ancient civilizations in our modern world. Important events following the fall of Rome will be highlighted in this course, including the Crusades, the feudal system in Europe, the Renaissance, the Protestant Reformation, and the Scientific Revolution. Moreover, students will understand the final breakdown of feudalism with the French Revolution. The fourth marking period will introduce students to the modern era, beginning

with the development of European countries, such as Germany and Italy and eventually leading to an in-depth discussion of the world wars from a world history perspective. To enhance learning, students will focus on primary source documents, technology based learning and critical reading assignments. In preparation for the advanced levels of high school history, students are expected to learn the principles of formal, research-based writing.

## **United States History I**

The course explores the beginnings of civilization in our hemisphere with the emphasis on the United States. The course begins with a review of the early South American cultures and will work through the Explorations and the Early Colonization Period. The development of self-government will be examined followed by a study of the American Revolution, our first attempts at unification, and their effect upon the framing of the U.S. Constitution. The formation of political parties and the rise of Nationalism and Sectionalism will be researched as to how they impact upon the causes of the Civil War. The course ends with the Reconstruction Period and the opening of the West.

## **United States History II**

Beginning with the post-Civil War Reconstruction Era, this course provides students with an overview of the period in U. S. history from 1865 through the present. Emphasis is placed on historical interpretation in the form of analytical writing. Students will be asked to apply current issues and statutes to historically significant events in order to better understand the development of the United States as an advanced industrial society. Students will focus on issues such as industrialization, Urbanization, Imperialism, and Radicalism. They will also analyze particular periods/events in history, including the Progressive Era, World War I, the Great Depression, World War II, Vietnam, Iraq, Afghanistan, and the Cold War Era while paying particular attention to the social and government forces at work with American society.

## **Advanced Placement U.S. History I**

Part one of the Advanced Placement program is taken during a student's Junior year in place of the standard U.S. History I class. Beginning with the "Age of Discovery" and the period of initial discovery by Columbus, the course establishes the foundation of U.S. History and analyzes the issues and problems that the United States encountered during its infancy. Students are asked to analyze primary source documents that pertain to the relevant period and incorporate these documents in their writing. Emphasis is placed on political and governmental challenges associated with the American Revolution as well as the Civil War. Analysis of how the republic evolved through the period of Jacksonian Democracy will also be a major focus of this first year. This survey concludes with the post-Civil War Reconstruction period and the problems facing late Nineteenth Century America.

## **Advanced Placement U.S. History II**

The second section of Advance Placement U. S. History is to be taken during the student's senior year and continues with the same format and independent structure as Advanced Placement U.S. I. Beginning with the era of westward expansion and the industrial boom following the Civil War, students will cover

the period from 1865 through the present. This course provides an in-depth study of social issues that were pertinent during the late nineteenth – early twentieth centuries. Students will be asked to assess the relevance of historical issues in modern society and will better understand the evolution of the United States from a “disjointed” union to the world’s premier industrial power.

### **Current Events**

This course will examine local, state, national, and international events through the use of newspapers, magazines, documentaries, and films. The classroom will be a forum for discussion and an open exchange of ideas. The goal of the class is to enlighten students about the world in which they live. Current Events will include the study of civics so students will understand the nature of government, and the unique characteristics of American representative democracy, including its fundamental principles, structure, and the role of citizens. Understanding the historical development of structure of power, authority, and governance and their evolving functions in contemporary U.S. society and other parts of the world is essential for developing civic competence. An understanding of civic ideals and practices of citizenship is critical to full participation in society and is a central purpose of social studies.

### **Economics**

This course will give the students a better understanding of economics ranging from the viewpoint of the individual consumer or small business owner to the global economy. Topics include the law of supply and demand, forms of business, labor unions, government finances and influence on the economy, money and prices, inflation and deflation cycles. Additionally, the course relates history and politics to the study of economics.

### **Psychology**

This course is a classic approach to the study of human behavior. It is an in-depth look at the theories of learning, mental disorder and dream interpretation. Behavior modification and stimulation – response mechanics are discussed in great detail. The course will entail the phase of learning and cognition, motivation and emotion, stages of development, and therapy and treatment.

### **Sociology**

This course focuses on human relationships in society. Emphasis is placed on a sociological point of view to examine culture, social structure, the individual in society, social institutions and social inequalities. The changing social world and its implications are presented and analyzed so students become aware of the social forces that shape their views of the world.

## **Technology Department**

The impact of technology and media on today’s society plays an important role in the education of our students. Students are exposed to computers and media at young ages and must be informed of the power

both possess. There must be a good working knowledge of computers and an understanding of all different forms of media whether it be movies, television, radio, newspapers, or the ever-expanding internet.

### **Introduction to Technology: Grades 9 and 10**

This intensive Microsoft Office course provides students with an opportunity to gain professional skills in developing resumes and cover letters, spreadsheets, using worksheet formatting, working with basic formulas and functions, and creating various reporting documents. Other skills include composing professional presentations that integrate tables, charts, and other multimedia elements.

### **Graphic Design**

This course will explore the formal elements of design including composition, color, texture, and shape in the form of applied visual problem-solving exercises. Students will engage in hands – on design practices, develop creative thinking strategies, and devise solutions to visual communication design challenges in typography, concept design, packaging and labeling, billboards, business design, and advertising. The course familiarizes students with visual principles, essential software, and techniques that serve the basic designer needs. Adobe Illustrator is the main graphic composition tool utilized in this class.

### **Accounting I**

This course acquaints students with the fundamental principles and practices of accounting. Business problems similar to those in everyday office procedures are used as the basis for instruction. The practical training includes minor duties often required of the bookkeeper. This course will cover the role of accounting in business, business ownership, financial statements, banking activities, payroll accounting, payroll tax returns, processing cash receipts, purchases of merchandise and sales on credit. Ideal course for students planning to attend college to pursue a business career, or for those students' seeking employment upon graduation.

### **Accounting II**

This course will provide extensive coverage of accounting systems, procedures and controls, such as analyzing financial statements, controlling cash, purchases and notes payable, partnerships and corporations, and controlling inventory. It is an ideal course for students planning to attend college to pursue a business career or for those students' seeking employment upon graduation.

All students are given the opportunity to secure a solid foundation in foreign language. Students will develop an appreciation and respect for the culture of the foreign country through the study of its history, tradition and literature. In addition, students will acquire skills that enhance their career opportunities.

### **Spanish I**

This course introduces the four basic skills of listening, speaking, reading, and writing. This knowledge will be acquired through many different activities such as skits, conversation, grammatical concepts and reading small literary excerpts in Spanish. Students are introduced to Spanish and South American culture and civilization. Every effort is made to use the target language wherever possible.

### **Spanish II**

The focus of this course is to expand on the basic skills acquired in the first year of Spanish. Vocabulary is enhanced through the reading of literary excerpts and regular assessments. Through role-playing and orchestrated conversation, students will learn “real world” application of grammatical skills. The class is conducted in Spanish as much as possible.

### **Spanish III**

Students perfect the four basic skills through conversation, composition, and grammar study. Cultural enrichment is incorporated into this course through correlation with readings. Students are introduced to Spanish literature through the study and discussion of excerpts of Spanish novels. One of the aims of this course is to gradually immerse the students in the Spanish language in order to master fluency.

### **Spanish IV**

This advanced class will be conducted completely in Spanish. Intensive amplification of vocabulary through topic-oriented conversations will better prepare the student to speak and discuss in varied situations. History, culture and advanced grammar will also be studied. The students will read specific novels followed by class discussion. Written composition will be an integral part of all the aspects taught.

### **Italian I**

This course will present students with the fundamental grammatical skills of the Italian language and will provide the ability to apply that knowledge into everyday experiences. This course will seek to build vocabulary and conversational skills evident in its cultural application. The course takes a natural communicative approach which focuses on listening, speaking, reading, and writing the language. The language will be explored through various print, multimedia and total physical response activities that will help make the language relevant and current. The assignments and activities in Italian I require all students to be active and respectful participants.

## **Italian II**

This course will continue to develop the necessary grammatical skills of the Italian language, focusing on written and spoken proficiency. This course takes a natural communicative approach through listening, speaking, reading, and writing the language. The language will be explored through various print, multimedia and total physical response activities that will help make the language relevant and current. Classroom instruction will be in Italian, using English as necessary. The assignments and activities in Italian II will require that students be active and respectful participants. The end of the year video project will help students organize, write, and communicate in Italian.