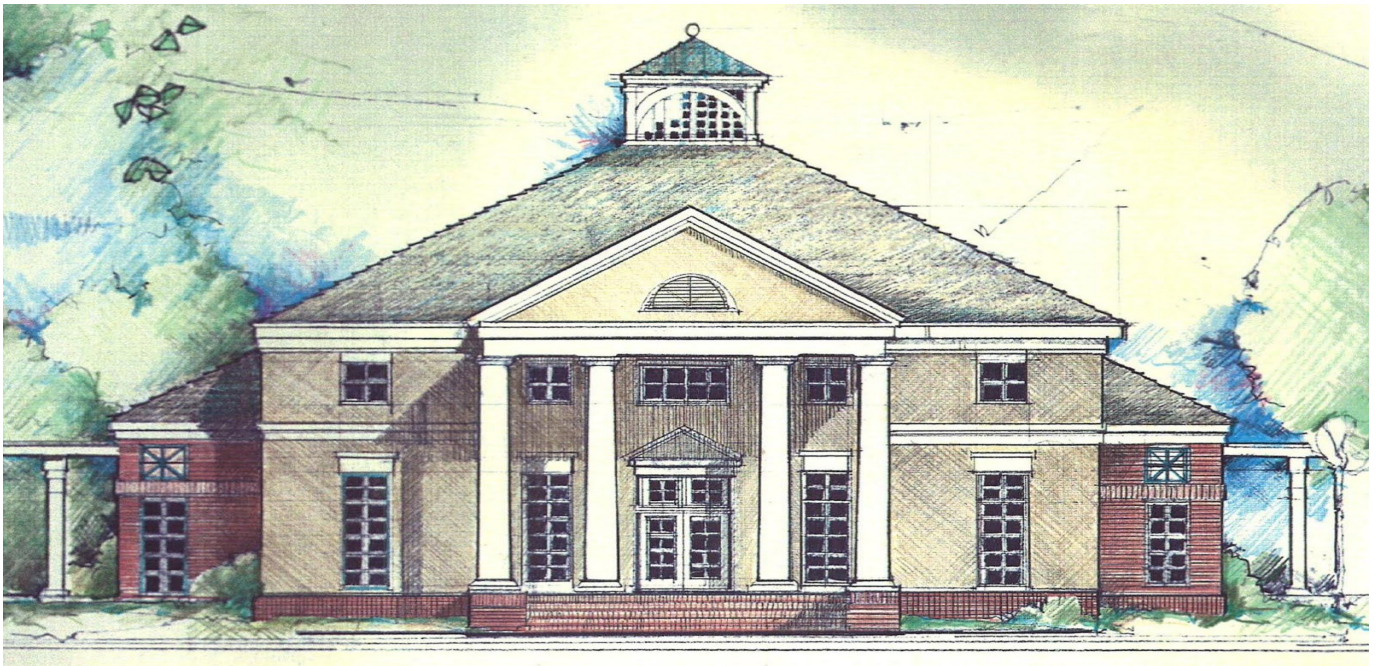


Saint James School

High School Course of Study 2017-2018



Courtesy of Barganier Davis Sims Architects Associated

Saint James is an independent, nonsectarian, and college preparatory school, with a student body broadly representative of college-bound students. We are committed to challenging and assisting students in realizing their individual potential and preparing them for lives of responsibility, service, and achievement.

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FOREWORD

This Course of Study describes the Saint James High School educational program. Our educational program provides students opportunities to develop the skills, self-confidence, maturity, and knowledge that they will need as they enter college, and which will permit them to be effective and responsible members of society. Our students' academic abilities range from average to gifted among the college-bound population. We wish to prepare students to choose and succeed at the post-secondary institution that best challenges and suits them. For this reason, the Course of Study offers options to challenge students across their spectrum of academic abilities. This publication is intended to assist parents and students in course selection.

COURSE REQUIREMENTS FOR GRADUATION

Saint James offers many courses in grades nine through twelve. Students must work closely with their parents and the guidance counselors in selecting courses. The core academic subjects must take precedence over any electives.

One of two diplomas may be earned, General or Honors. The course requirements for these diplomas are listed below. Students wishing to attend more selective colleges or universities should consider additional courses in mathematics, science, and foreign languages. All students are encouraged to take challenging courses to meet their intellectual abilities. By following this principle, Saint James students are prepared for a rigorous college educational program.

GENERAL COURSE REQUIREMENTS

The student must pass 25 Carnegie units*

All courses are year-long. Students will not be able to drop a course mid-year. Semester credits of differing classes cannot be combined to equal one full credit in any core or elective area.

Required:

English	4
Mathematics**	4
Social Studies	4
Science.....	4
World Language	2
<i>Two consecutive levels of the same world language</i>	
Fine Arts.	1
Physical Education or Approved Substitute***	1
21st Century Technology.....	1
Electives.....	4

*Students must take a minimum of one math, science, English, and history course each year.

**Minimum of Algebra 1, Geometry, Algebra 2, and Algebra 3 & Trigonometry.

***The approved substitute for the Physical Education credit required for graduation are as follows: Enrollment and participation in the fall marching band component of the Instrumental Music course for two semesters. Students may substitute 1/2 credit for each semester of marching band toward meeting the Physical Education Requirement. Students must participate in fall marching band two years in order to earn the full Physical Education credit required. Students taking only one year of marching band must take a full year of physical education to be granted physical education credit. Two spring concert band semesters count toward meeting the fine arts requirement. Students taking only one year of concert band must take a full year of a fine arts class to be granted a fine arts credit. Students may also take one year of cheerleading, athletic weight training, or dance team to satisfy the Physical Education requirement.

HONORS DIPLOMA REQUIREMENTS

1. The student must earn a minimum of 27 Carnegie units of high school credit.
2. The student must have a weighted grade point average of 3.80 or better. Advanced Placement courses are given one additional quality point in the calculation of grade point averages.
3. The student must receive high school credit for three different levels of the same world language.
4. The student must receive high school credit for a minimum of four of the following science courses:
Physical Science (required), Advanced Biology or Biology (one of these courses is required), Chemistry, Physics, AP Biology, AP Chemistry, AP Physics, and Anatomy and Physiology
5. The student must complete a minimum of 6 semesters of Advanced Placement courses in high school. In order to receive AP credit toward an Honors Diploma, a student must successfully complete both semesters of any course designated as a year-long course by the College Board. The only semester AP classes offered by Saint James are US Government & Politics and Macroeconomics. **These Advanced Placement courses must be selected from a minimum of two different subject areas in order to satisfy Honors Diploma requirements.** (For Example: Art and Math, Math and Science, Science and English, History and English)
6. Transfer students are eligible for an Honors Diploma only if they complete four semesters (two academic years) at Saint James and satisfy all other Honors Diploma Requirements.
7. The student must complete 8 hours of documented community service during each year he or she attends Saint James in grades 9-12. In order to count towards the Honors Diploma requirement, all hours must be accumulated through programs sponsored or approved by the principal or his designee and must be properly documented by the student.

THE COLLEGE BOARD ADVANCED PLACEMENT AND ADVANCED CLASS PROGRAM

Saint James offers both advanced and AP (College Board Advanced Placement) courses in certain curriculum areas. Advanced classes are available for qualified 9th and 10th grade students who meet class prerequisites. These classes are more challenging and require more independent effort and thought on the part of students. AP (College Board Advanced Placement) courses are open to students in 10th-12th grades who have demonstrated the ability to succeed in courses taught at the academic level of freshman courses in selective colleges. The number of students admitted to advanced classes and AP (College Board Advanced Placement) classes is limited and will be based on academic achievement, student interest and motivation, and teacher recommendation. Standards for eligibility vary from course to course. Students who are interested in Advanced or AP (College Board Advanced Placement) courses should check all the prerequisites which appear with the course descriptions in this Course of Study. To determine final eligibility, class instructors may ask current teachers for additional information and/or recommendations for students who requested these classes. In the event that the number of requests of qualified students exceeds space available, placement may be based on a combination of recommendation and the highest numerical averages. Students who take an AP (College Board Advanced Placement) course are required to take the appropriate College Board Advanced Placement Examination. Parents will be charged approximately \$100 for each Advanced Placement exam. Many colleges award college credit to students who perform satisfactorily on this examination. Each student must negotiate his or her own credit contract with the college of choice.

AN OVERVIEW OF COURSE OFFERINGS

The last date to drop or add any class for the 2017-2018 academic year is **September 1, 2017**. Students are required to take the first major test prior to dropping the class.

Please read the course description information included in this course of study carefully to determine course content and requirements and prerequisites for individual classes. Those courses marked with an asterisk have selective enrollment based on previous coursework and/or academic performance, interview and/or application process, or instructor approval.

Required and prerequisite courses should be taken as part of the Saint James curriculum. Any deviation from this planned curriculum and academic process must have the approval of a committee consisting of the Headmaster, Academic Dean, Principal, and Department Head. This committee will review and evaluate the individual circumstances. Only courses taken at Saint James may appear on the Saint James transcript and may be credited toward the student's GPA.

ENGLISH

Required:

Grade 9	English 1 or Advanced English 1 *
Grade 10	English 2 or Advanced English 2 *
Grade 11	English 3 or AP Language and Composition *
Grade 12	English 4 or AP Literature and Composition *

**Selective enrollment*

MATHEMATICS

Students who wish to double up on math classes must have departmental approval in writing.

Students must take a mathematics course each year during high school. Enrollment in specific classes is based on prerequisites and recommendations.

Required Minimum:	Algebra 1 Geometry Algebra 2 Algebra 3 & Trigonometry
Grade 9:	Algebra I, Geometry, Advanced Geometry*, Algebra 2 with Trigonometry*
Grade 10:	Geometry, Advanced Geometry, Algebra 2, Algebra 2 with Trigonometry, Advanced Pre-Calculus*
Grade 11:	Algebra 2, Algebra 2 with Trigonometry*, Algebra 3 & Trigonometry, Advanced Pre-Calculus*, AP Calculus AB*
Grade 12:	Algebra 3 & Trigonometry, Pre-Calculus, AP Calculus AB*, AP Calculus BC*

**Selective enrollment*

COMPUTER STUDIES

Required:	
Grades 9-12	21st Century Technology
Electives:	
Grades 10-12	Networking* - offered 2016-2017 Programming* - offered 2017-2018
Grades 11-12	Introduction to Computer Forensics

**Courses offered on rotating years*

SOCIAL STUDIES

Required:	
Grade 9	World History 1 or Advanced World History 1*
Grade 10	World History 2 or AP European History *
Grade 11	American History or AP United States History *
Grade 12	US Government/Economics or AP US Government & Politics*/AP Macroeconomics*

**Selective enrollment*

SCIENCE

Students who wish to double up on science classes must have departmental approval in writing.

Required:

Grade 9

Physical Science (Required for all students who did not successfully complete Physical Science in 8th grade) or
Advanced Biology* (Only for advanced science track students who completed Physical Science in 8th grade.)

Grade 10

Biology or Advanced Biology** (Required for all students who took Physical Science in 9th grade) or
Chemistry (Only for advanced science track students who completed Advanced Biology in 9th grade)

Grades 11-12

One additional science course each year from science courses listed below
Note: Neither Environmental Science or Botany/Zoology qualify for honors diploma.

Chemistry

Physics

Anatomy / Physiology

Environmental Science

Botany/Zoology

AP Chemistry & Lab* (Requires 2 periods)

AP Biology & Lab* (Requires 2 periods)

AP Physics & Lab*

**Selective Enrollment*

***See course description for requirements*

WORLD LANGUAGES

Required:

Two consecutive levels of the same world language in grades 9-12. A third level of the same world language is required for an Honors Diploma. Students must take world language classes each consecutive year until they have met their graduation or Honors diploma requirements. Students are not allowed to skip a year of world language in their scheduling sequence.

Electives:

Grade 9

French 1

Latin 1

Spanish 1

Grades 10-12

French 1, 2

Latin 1, 2

Spanish 1, 2

Electives:

Grades 10-12

French 3*, 4*

Latin 3*, 4*

Spanish 3*, 4*

***Selective Enrollment**

FINE ARTS

Electives:

Grades 9-12	Theatre Arts 1 Technical Theatre 1 Visual Art 1 (Beginning) Instrumental Music 1, 2, 3, 4 (Marching and Concert Band) Choral Music 1, 2, 3, 4 Competitive Speech and Debate Guitar
Grades 9-12	Journalism Yearbook* 1,2,3,4 Journalism Newspaper* 1,2,3,4
Grades 10-12	Visual Storytelling (beginning 2016-2017 academic year) Theatre Arts 2 Technical Theatre 2 Technical Theatre Production* Visual Arts 2 (Intermediate) Visual Arts 3 (Advanced) Visual Arts 4 (Advanced) AP Studio Art – Drawing & Lab* (Requires 2 periods) AP Studio 2-D Design* Graphic Design Music Technology Guitar 2* AP Art History (Through MMFA)* Photography I Photography II* Instrumental Music (Marching and Concert Band) AP Music Theory* (11 th & 12 th only)

**Selective Enrollment*

PHYSICAL EDUCATION

Required:

Grade 9	Physical Education (<i>See page 1 of the Course of Study for information about substituting fall marching band for PE credit.</i>) Athletic Weight Training* (<i>Requires Coaches Signature</i>) 7 th Period Athletics* (<i>Requires Coaches Signature</i>) Cheerleading (<i>Requires Selection to Cheerleading Squad</i>) Trojanettes Dance Team (<i>Requires Selection to Dance Team</i>)
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Electives:

Grades 9-12	Lifetime Health and Wellness
Grades 10-12	7 th Period Athletics* (<i>Requires Coaches Signature</i>) Athletic Weight Training* (<i>Requires Coaches Signature</i>) Cheerleading (<i>Requires Selection to Cheerleading Squad</i>) Trojanettes Dance Team (<i>Requires Selection to Dance Team</i>)

PRE-COLLEGE MAJOR ELECTIVES

- Grades 9-12 Introduction to Business, Marketing, and Personal Finance
Introduction to Pre-Law Studies
Robotics and Pre-Engineering*
- Grades 10-12 International Language Lab*
Survey of Sports Medicine, Physical Therapy, and Related Professions
- Grades 11-12 Introduction to Philosophy and World Religions
The United States in Global Affairs

**Selective Enrollment*

OTHER ELECTIVES

- Grades 10-12 Middle/High School Library Assistant*
Elementary Library Assistant*
- Grades 11-12 All Other Assistantships*
(Please note that a student can only take TWO assistantships. All assistantships are highly selective and must be approved by the faculty or staff member who will be supervising them.)
- Grades 11-12 Interpersonal Relations Youth Leadership*

**Selective Enrollment*

COURSE DESCRIPTIONS

ENGLISH

ENGLISH 1

In this course students will read and analyze a variety of literary genres: stories, poetry, drama, epics, novels and prose. Students will develop and refine critical thinking and writing skills. Students will write in different modes, including argumentation/persuasion, literary analysis, comparison/contrast, and personal narrative. At least one essay will be documented in correct MLA format. Fact vs. opinion, quality of sources, understanding of MLA format, and understanding of how to navigate the Purdue OWL will be stressed in the documented essay(s). Vocabulary study will be incorporated along with literature and composition. Students will not only review grammar, punctuation, and sentence structure but will also work on style in writing and proofing skills.

ADVANCED ENGLISH 1

In this advanced level of the course, students will be required to study literature in a more in-depth manner in preparation for advanced high school English. Students will develop an increased ability to read, analyze, and respond critically to stories, poetry, drama, epics, myths, novels and prose. Students in this course will have several different and more complex novels assigned during the course of the year, and be expected to excel at more independent reading and analysis. Students taking this course should be proficient in writing and have a strong background in grammar and punctuation. Students will write in different modes, including argumentation/persuasion, literary analysis, comparison/contrast, and personal narrative. At least two essays will be documented in correct MLA format. Fact vs. opinion, quality of sources, understanding of MLA format, and understanding of how to navigate the Purdue OWL will be stressed in the documented essay(s). Vocabulary study will be incorporated along with literature and composition. Students will work on grammar, punctuation, sentence structure, and style as needed. Throughout the year students will assume a greater responsibility for proofreading their essays and making revisions.

Prerequisite: Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 92 yearly average in the previous regular class or a 90 yearly average in the previous advanced class.

ENGLISH 2

English II integrates the study of world literature, grammar, vocabulary, and composition. The focus of the class is on critical reading as well as composition skills. Students will study representative works of literature and write a minimum of five major essays, including argumentation/persuasion, literary analysis, narrative, definition, and comparison/contrast. Two essays will be documented in correct MLA format. Grammar and vocabulary will be stressed through literary selections and students' writing. Throughout the year students will assume a greater responsibility for proofreading their essays and making revisions.

ADVANCED ENGLISH 2

A prerequisite to Advanced English 2 is a proficiency in writing and a strong background in grammar and punctuation. This class integrates the study of world literature and composition with grammar and punctuation being taught through students' writings. Students will study representative works of literature and write a minimum of five essays, including argumentation/persuasion, literary analysis, narrative, definition, and comparison/contrast. Two essays will be documented according to correct MLA format. Students will also take responsibility for completing independent reading and related assignments each semester. Advanced English 2 places a greater demand on students to formulate their own discussion questions and monitor their own understanding of literature. This class will also focus on the development of style in students' writing.

Prerequisite: Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 92 yearly average in the previous regular class or an 90 yearly average in the previous advanced class.

ENGLISH 3

English 3 uses a thematic approach to understanding the rich history of American literature. Each quarter will be dedicated to a particular theme (American Dreams, Frontiers, Higher Powers, The Individual vs. Society), and each theme will have central questions that are introduced at the beginning of the quarter that will guide writing assignments. Texts for these themes are chosen from authors throughout American history, including those from Native Americans and early colonists to authors of the 21st century. Course work emphasizes critical thinking, the ability to draw connections between texts and relate them back to the themes, and writing skills that reveal a sophisticated development of English grammar and vocabulary. Composition assignments target a range of audiences and include a documented essay and literary analysis.

AP LANGUAGE AND COMPOSITION Junior Level Course

Advanced Placement Language and Composition engages students in becoming skilled readers of prose, and it also includes a focus on the effective use of language to develop students' rhetorical skills. Critical reading and style analysis help students to become better writers as they produce more logically organized, coherent papers and to develop their own writing styles. The course requires extensive readings from a variety of authors, rhetorical modes, and genres. The course also requires a variety of writing assignments, which include essays (some documented) and analyses. The course offers practice in timed writings and other Advanced Placement questions that the students will encounter. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 92 yearly average in the previous regular class or an 90 yearly average in the previous advanced class.

ENGLISH 4

This course is rooted in the study of the history of British literature, proceeding from the Anglo Saxons to the Middle Ages, the Renaissance, the Restoration, Romanticism, and beyond. Interspersed among works of the canon are contemporary works—short stories, novels, and poems—from the United States and elsewhere. All literature requires critical thinking, with students producing literary analyses both in and outside the classroom. Students perform research on literary works and on issues facing teenagers in the 21st century; research on nonfiction results in an argumentative essay combining other modes of development: definition, cause and effect, narration, and so forth. This course prepares students for the rigors of college writing, with emphasis on unity, coherence, strength in mechanics and grammar, proper MLA documentation, and economy.

AP LITERATURE AND COMPOSITION Senior Level Course

Students in this course will read extensively in four genres—poetry, drama, the short story, and the novel—pinpointing how authors manipulate readers with syntax (the schemes) and semantics (the tropes). Because the College Board expects students to connect authorial technique to meaning, this course spends a great deal of time analyzing texts from a technical standpoint. Students not only perform close readings on many texts, but also produce many literary analyses. We spend much time perfecting writing, especially in terms of economy, strength, and rhythm. The depth and difficulty of the demands of the class increase as the school year progresses.

Parents will be charged approximately \$100 for each Advanced Placement exam.

Prerequisite: Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 92 yearly average in the previous regular class or a 90 yearly average in AP English Language and Composition.

MATHEMATICS

ALGEBRA 1

This course is a study of the structure and properties of the real number system. Linear equations, inequalities and systems are used in problem solving and graphing. Polynomials, their factors, and quadratic equations are also studied, and function notation and radical operations are introduced. Students are required to have a graphing calculator for this course.

GEOMETRY

This course begins with the basic concepts of point, line, and plane and then proceeds with such concepts as parallel and perpendicular lines, angles, and triangles. Students are gradually introduced to deductive reasoning. Other topics include congruency and similarity, parallelograms, special right triangles and circles. Coordinate geometry is integrated throughout the course to provide transition from geometry to algebra. Students are required to have a graphing calculator for this course.

Prerequisite: Successful completion of Algebra 1.

ADVANCED GEOMETRY

This course contains all the content of the Geometry course but at a faster pace. It includes more extensive use of deductive reasoning, advanced problem solving, and more topics related to solids. Enrichment activities and completing constructions provide students with stimulating and interesting hands-on opportunities as well as insights into real world applications. Students are required to have a graphing calculator for this course.

Prerequisite: A minimum yearly average of 90 in Algebra 1 and teacher recommendation.

ALGEBRA 2

This course provides strengthening and extension of the material presented in Algebra 1. Other topics presented in Algebra 2 include inequalities, functions, matrices, complex numbers, conics, polynomials, rational expressions, radicals, and logarithms. Students are required to have a graphing calculator for this course.

Prerequisite: Successful completion of Geometry.

ALGEBRA 2 with TRIGONOMETRY

This course proceeds more rapidly than the Algebra 2 course and includes inequalities, functions, matrices, complex numbers, rational expressions and functions, conics, polynomial functions, radicals, exponents, logarithms, and sequences and series. The course culminates in a survey of trigonometry. Right triangles, the unit circle, and graphing the trigonometric functions are studied. This course is intended for the student with a strong mathematics background who plans to take courses in advanced mathematics or science. Students are required to have a graphing calculator for this course.

Prerequisite: A minimum yearly average of 85 in Algebra 1 and in Geometry or Advanced Geometry.

ALGEBRA 3 & TRIGONOMETRY

This course is designed for students who have completed Algebra 2 (no trigonometry). It is designed to review and to provide more in-depth coverage of Algebra 2 topics such as functions, conic sections, complex numbers, logarithms, and word problems. It will introduce such topics as sequences and series. A major component of this course is the study of trigonometry. The unit circle, right and oblique triangles, the Laws of Sines and Cosines, and identities are studied. Also included are solving trigonometric equations and graphing the functions and their inverses. Students are required to have a graphing calculator for this course.

Prerequisite: Successful completion of Algebra 2.

ADVANCED PRE-CALCULUS (Sophomores and Juniors Only)

This course is designed to prepare students for a college level study of calculus. In addition to all the topics presented in Pre-calculus, Advanced Pre-calculus students will study sequences and series, polar graphing, graphing equations in three dimensions, and using vectors in three dimensions. The course will cover a wider variety of applications and move at a faster pace than Pre-Calculus. Students are required to have a graphing calculator for this course.

Prerequisite: A minimum yearly average of 85 in Algebra 2 with Trigonometry and teacher recommendation.

PRE-CALCULUS (Seniors Only)

This course is designed to prepare students for college calculus. It begins with a thorough review and extension of the study of functions, including polynomial, logarithmic, exponential, and rational functions. It then proceeds through the study of circular and triangular trigonometry and vectors. Students enrolling in this course will be expected to apply concepts in novel situations and to devote an amount of time on written assignments comparable to that of an equivalent college course. Students are required to have a graphing calculator for this course.

Prerequisite: Successful completion of Algebra 3 & Trigonometry or a minimum yearly average of 80 in Algebra 2 with Trigonometry and teacher recommendation. Sophomores or juniors should not take this course but should instead take Advanced Pre-calculus.

AP CALCULUS AB

This advanced placement course is specifically designed to cover the major topics of Differential and Integral Calculus. The derivative, its definition and applications, including rates of change, maxima and minima, and graphical interpretation are studied in depth. Integral Calculus includes the antiderivative, differential equations, areas, volumes, and average value. Throughout the year, students prepare for the AP test in May. Special review and practice preparations are incorporated into the regular course work during the last quarter. This course is equivalent to the first semester of college calculus. Students are required to have a graphing calculator for this course. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: A minimum yearly average of 80 in Advanced Pre-Calculus and teacher recommendation.

AP CALCULUS BC

This advanced placement course is designed for students with exceptional talent and extraordinary interest in mathematics. In addition to those topics covered in Calculus AB, the BC course includes other topics such as advanced integration techniques, vectors, parametrically defined curves, and infinite series. The content of this course is designed to qualify the student for placement and credit one semester beyond that granted by most colleges and universities for Calculus AB. Students must have a graphing calculator for this course. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Completion of Calculus AB.

COMPUTER STUDIES

21ST CENTURY TECHNOLOGY

Students in grades 9-12 have broadened their perspective regarding the importance of existing and developing technologies and have an understanding of the scope of technology in today's world. As students progress through the high school years, they are able to address a variety of problems on a variety of topics in a logical manner. Technology offers students an efficient means by which many types of problems may be solved. The 21st Century course is designed to provide students with the concepts and skills regarding knowledge of computer operations. Additional components of the course are responsible use of computers, efficient use of computers to enhance productions and presentations, and use of computers to access information. Competent computer utilization fosters students' problem-solving and critical-thinking skills and enables students to become competitive workers in the twenty-first century. The content standards in this course are designed around content organizers that emphasize hands-on, practical activities that extend beyond the computer classroom or laboratory. Course content should be integrated into other curricular areas to allow students to reinforce and expand technology competencies. As students become proficient users of computers and other technologies in the classroom, the benefits of using these tools for researching, analyzing, and synthesizing information beyond the classroom become evident. Technology literate students realize that technology tools and resources enhance not only educational endeavors but also personal and professional success as well.

NETWORKING

This course prepares students for the CompTIA A+ Certification exam, an industry-sponsored test that establishes a benchmark level of knowledge and competency expected of computer service technicians who are in entry-level positions. A+ Certification also serves as the foundation for computer service professionals who are pursuing other valuable industry certifications, such as the Cisco Certified Networking Associate (CCNA), CompTIA Network+, and Microsoft Certified Professional (MCP). While preparing for the A+ Certification exam, students will gain a comprehensive knowledge base in PC hardware and Windows operating systems, networking basics, printers, and customer service. Hands-on labs using the latest computer components and operating systems will also provide an opportunity for students to enhance their skills in assembling, disassembling, servicing, troubleshooting, and upgrading advanced computer and networking systems. Upon completion of this course, students will also know the basics of building a Windows-based network.

Prerequisite: Successful completion of 21st century technology. Offered 2016-2017.

PROGRAMMING

In the Introduction to Programming class, students will be introduced to several of the main concepts in computer programming including sequencing, selection, and iteration. Students will be able to use these constructs to create a solution to solve a simple problem and create a small to medium sized software program. Students will also be introduced to some of the main concepts of object-oriented programming. The following is a tentative list of topics:

The Java Programming Language

- Java syntax
- Java programming environment
- Dealing with compilation errors
- Basic debugging skills

Object-oriented programming basics

- Objects
- Classes
- Introduction to inheritance
- Encapsulation

Students will also use XCODE to develop Apps for the Apple IOS.

Prerequisite: Successful completion of 21st Century Technology. Offered 2017-2018.

INTRODUCTION TO COMPUTER FORENSICS

This course will provide a foundation in the field of Computer Forensics. The student will learn how to obtain and analyze digital information for possible use as evidence in civil, criminal or administrative cases. Topics include applications of hardware and software to computer forensics, computer forensics law, volume and file system analysis, computer forensics investigations, and computer forensics in the laboratory. Hands-on exercises guide discussions and reinforce the subject matter.

By the end of the year, students will:

- Correctly define and cite appropriate instances for the application of computer forensics
- Correctly collect and analyze computer forensic evidence
- Identify the essential and up-to-date concepts, algorithms, protocols, tools, and methodology of Computer Forensics

Prerequisite: Successful Completion of Networking and Programming Classes and Junior or Senior Classification.

SOCIAL STUDIES

WORLD HISTORY 1

World History 1 is a survey course which includes a study of the world from the prehistoric period through the 17th Century. Emphasis is placed on applying historical thinking skills in order to understand the context of civilizations, cultures, and religions. The course encourages the students to utilize higher-level cognitive skills to analyze primary and secondary sources in cause and effect relationships and to develop an understanding of how the past influences the present and the future. Outside readings are used to broaden a student's knowledge of material.

ADVANCED WORLD HISTORY 1

Advanced World History 1 is a survey course which includes a study of the world from the prehistoric period through the 15th century. Emphasis is placed on applying historical thinking skills in order to understand the context of civilizations, cultures, and religions with a deeper focus on analysis of primary and secondary sources. There is a higher concentration on writing and collaboration of sources to create an argument. Unlike World History 1, this course is designed for students who are strongly considering taking AP European History in the 10th grade and are ready to accept the challenges of more responsibility for independent learning. Content is designed to mesh with the AP European course, and students have more opportunities to develop and practice advanced critical thinking, reading, and writing skills. Enrollment in the class is selective based on grades, effort, and interest in previous history classes.

Prerequisite: Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 90 yearly average in the previous regular class or an 85 yearly average in the previous advanced class.

WORLD HISTORY 2

World History 2 is a continuation of the ninth grade course and is designed to bring the student from significant developments of the 17th Century into the modern world. Considerable attention is given to current events during the fourth quarter of the academic year. Outside readings are used to expose students to great world literature and thought as well as to emphasize historical material studied.

AP EUROPEAN HISTORY

Advanced Placement European History is the study of the history of Europe from the Renaissance to the present, with emphasis on the major trends and issues during this time period. The requirements include additional reading and writing, and increased student responsibility to prepare and participate in class discussion and other activities. Assignments require more complex analytical and critical thinking skills than those in the World History classes. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Emphasis is placed on preparing the student to take the AP European History test at the end of the school year. Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 90 yearly average in the previous regular class or an 85 yearly average in the previous advanced class.

AMERICAN HISTORY

American History is a two-semester course in which students study many people, events, places, movements, ideas, and institutions in America's formation and development from the period of early exploration and colonization by Europeans to present times.

The first semester will cover the pre-colonial, colonial, revolutionary, early national, antebellum, Civil War, Reconstruction, westward expansion, and industrial eras. The second semester will cover the eras of the turn of the century, urbanization, progressive reforms, World Wars I and II, the New Deal, the Cold War, Civil Rights Movement, Vietnam, and contemporary America. Specifically, within these eras the political, social, and economic developments will be examined, while considering the ideological, moral, and intellectual temper of the periods. This history class is a quest for self-understanding; in our study of our nation's past we have opportunities to gain greater understanding of our world and ourselves.

AP UNITED STATES HISTORY

Advanced Placement United States History is a college-level course in which students study many people, events, places, movements, ideas, and institutions in America's formation and development from the period of early exploration and colonization by Europeans to present times. This AP course is designed to provide students with the pertinent historical knowledge and to help them develop the analytical and writing skills that will encourage them to view the connections between past and present in a critical manner. In addition to the requirements of the traditional class, the student is given more responsibility for reading and assessing historical materials, and class participation. Writing is a major component of this course; students will analyze materials, make evaluations, and present conclusions cogently in essay form.

The first semester will cover the pre-colonial, colonial, revolutionary, early national, antebellum, Civil War, Reconstruction, westward expansion and industrial eras. The second semester will cover the eras of the turn of the century, urbanization, progressive reforms, World Wars I and II, the New Deal, the Cold War, Civil Rights Movement, Vietnam, and contemporary America. Specifically, within these eras the political, social, economic developments will be examined, while considering the ideological, moral, and intellectual temper of the periods. This history class is a quest for self-understanding; in our study of our nation's past we have opportunities to gain greater understanding of our world and ourselves. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Emphasis is placed on preparing for the AP U.S. History Examination, which is given in May. Admission to the class is based on academic achievement, student interest, and teacher recommendation. In order to be eligible to sign up for this class, a student must have a 90 yearly average in the previous regular class or an 85 yearly average in the previous advanced class.

US GOVERNMENT/ECONOMICS

This course involves the study of the forces and principles which have shaped American government for the colonial period through the twentieth century. Special emphasis is placed on a thorough discussion of the U.S. Constitution as the flexible cornerstone of our system. The structure and function of each of the three branches is examined, and special units of study on political parties, civil liberties, and court cases contribute to the students' understanding of the complexity of democracy.

Economics is a general survey course of both microeconomic and macroeconomic theories associated with the operation of capitalistic economies. An in-depth look at the interaction of supply and demand includes the use of standard graphs, formulas, and problems. Studies also include American business, productivity, government involvement in the United States economy along with an analysis of fiscal and monetary policy tools and international trade.

AP US GOVERNMENT AND POLITICS/ AP MACROECONOMICS

This course involves a detailed study of the major forces that have contributed to the establishment and change of the American system from the colonial period through the twentieth century. Students examine documents, study court cases, and become acquainted with modern political system through the use of primary and secondary sources. Special emphasis is placed on understanding the original intent of the Constitution and examining changes in the interpretation of this cornerstone of our system. Students study the structure and function of each of the three branches, and special units on civil liberties and political parties contribute to the overall understanding of the system. The students are expected to complete additional assignments, which require a high degree of independent thought and work.

This course is a study of topics relevant to an understanding of the principles which govern economic activity in capitalistic economies. Basic concepts such as production possibilities, national income determinants, aggregate supply and aggregate demand, money, the banking system, fiscal policy and monetary policy are examined. There is additional discussion of international trade, which emphasizes the economic interdependency and the role of comparative advantage in international determination of trade policies. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Emphasis is placed on preparing the student for the AP US Government and Macroeconomics exams that are given at the end of the school year. Admission to the class is based on academic achievement and student interest. In order to be eligible to sign up for this class, a student must have a 90 yearly average in the previous regular class or an 85 yearly average in the previous advanced class.

SCIENCE

PHYSICAL SCIENCE

Physical Science is an introductory course that covers topics in both chemistry and physics. Chemistry topics include atoms, periodic table, compounds, equations, and acids and bases. The study of physics includes motion, forces, energy, heat, light, sound, electricity, and magnetism. Basic principles of chemistry and physics are emphasized through real life experiences, application of knowledge to new situations, and problem solving. **Physical Science is required to be taken in 9th grade unless the course was taken in 8th grade.**

BIOLOGY

Biology is a comprehensive study of the living world. In order to understand the life processes of organisms, the following are included; basic chemistry, biochemistry, cell structure and function, DNA replication, protein synthesis, photosynthesis, respiration, taxonomy, and genetics.

Laboratory experiences are provided for all major concept areas as well as group activities that are inquiry based. **Students who did not take Advanced Biology in 9th grade must take Biology or Advanced Biology in 10th grade.**

Prerequisite: Physical Science

ADVANCED BIOLOGY

Advanced biology is an accelerated lab-oriented course designed for students that have shown the ability to understand and apply advanced concepts and skills vital to the study of science.

Students that take this course will be expected to learn ideas and theories requiring critical thinking and application. Such concepts will come from the fields of molecular biology, cell biology, taxonomy, evolution, genetics, and chemistry. Through the study of current scientific research, students will focus on the application of scientific information and experimentation.

Students who successfully completed Physical Science in 8th grade are required to take Advanced Biology in 9th grade. Students who did not take Advanced Biology in 9th grade must take Biology or Advanced Biology in 10th grade.

Pre-Requisites*: Rising 9th graders who have completed a full year of Physical Science in 8th grade, are recommended by their Physical Science teacher to continue in the advanced science track, and are concurrently enrolled in a minimum of Geometry or Advanced Geometry, are required to take the class.

Rising 10th graders who have completed a full year of Physical Science with a minimum grade of 92, are recommended by their Physical Science teacher to continue in the advanced science track, and are concurrently enrolled in a minimum of Geometry or Advanced Geometry may apply for the class.

***All students who successfully complete Advanced Biology are required to take Chemistry the following year.**

CHEMISTRY

Chemistry is a laboratory-oriented course which develops student understanding of introductory theoretical chemistry and includes laboratory work that prepares students for college science and engineering studies. The course focuses on the composition, structure, and changes of materials. **Students who successfully completed Advanced Biology in 9th grade are required to take Chemistry in 10th grade.**

Prerequisite: Previous completion of / concurrent enrollment in Algebra II.

PHYSICS

Physics is a laboratory-oriented course that develops student interest and ability in physical science in preparation for college science and engineering studies. The traditional concepts of physics are developed in a unified logical sequence of mechanics, heat, sound, light, and electricity.

Prerequisite: The student must have completed or be concurrently enrolled in Advanced Pre-Calculus or Pre-Calculus or math teacher recommendation.

AP BIOLOGY

The Advanced Placement Biology class is designed to be the equivalent of a college introductory biology course. The course outline prescribed by the College Board is used as a guide to content. The three major areas to be covered are molecules and cells, genetics and evolution, and organisms and populations. Laboratory experiences are an integral part of this course and include completion of twelve inquiry-based labs as required by the College Board. Current scientific thought and research is also covered. AP Biology is a two period block. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Biology and Chemistry completed with minimum grades of 85 for both semesters

AP CHEMISTRY

Advanced Placement Chemistry is a course designed to be the equivalent of the general chemistry course usually taken during the first year of college. Successful completion of this course enables students to enter second-year chemistry courses as college freshmen or to register in courses in other fields where general chemistry is a prerequisite. An outline published by the College Board is used as a content guide. The major topics covered are the structure and states of matter, reactions, stoichiometry, kinetics and thermodynamics. Laboratory experience equivalent to that of a typical college course is also provided. AP Chemistry is a two period block. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisite: Chemistry completed with a minimum grade of 85 for both semesters, plus completion of Algebra 2 w/ trig with an average of 85 for each semester or completion of Algebra 2 with an average of 90 for each semester.

AP PHYSICS

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. This course is open to juniors and seniors who meet all the prerequisites. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

Prerequisites The student must have completed or be concurrently enrolled in Advanced Pre-Calculus or Pre-Calculus. Completion of Chemistry with a grade of 85 or higher for each semester.

ANATOMY AND PHYSIOLOGY

This laboratory-oriented course will develop an understanding of the structure and function of the human body at all levels of organization. Structural detail will emphasize both micro and gross anatomy. Functional detail will explore metabolic and physiological processes. Human diseases and health concerns will also be addressed.

Prerequisite: Biology completed with a minimum grade of 75 for both semesters.

BOTANY/ZOOLOGY

Botany and Zoology is an upper level science course designed give students a comprehensive overview of the plant and animal kingdoms. Throughout the course students will study impacts of microorganisms (beneficial and harmful) on humans, the evolution of plants and their impacts on humans, and the evolution of animals from simple sponges to mammals. Students will be expected to learn the scientific classifications of plants and animals (Phylum, Class, and Order when applicable) and identify specific morphological features of certain plant and animal groups.

Note: Dissections are a heavy part of Zoology and students will be expected and required to participate in all dissections. Some animals dissected include dogsharks, pigeons, anoles, and starfish. **Prerequisite:** Students must have completed Biology or Advanced Biology.

ENVIRONMENTAL SCIENCE

The purpose of this course is to introduce students to the realm of science dealing with our ecosystem and the problems facing our environment. Students will be introduced to the challenges that we face such as overpopulation, deforestation, pollution, and endangering/extinction of species. The students will be taught how to determine factors that are affecting these issues and methods of restoration to the ecosystem. The course will be a 50/50 course. Half of the course time will be in-class lectures and the other half will be doing labs and outside course activities such as stream assessments, population dynamics, etc.

Prerequisite: Students must have successfully completed Biology and/or another upper level Science course.

WORLD LANGUAGES

Two consecutive levels of the same world language in grades 9-12. A third level of the same world language is required for an Honors Diploma. Students must take world language classes each consecutive year until they have met their graduation or Honors diploma requirements. Students are not allowed to skip a year of world language in their scheduling sequence.

FRENCH 1

This course emphasizes aural-oral practice of all French sounds, rhythms, common expressions and essential verb and grammatical structures, along with writing and reading in the language. Cultural, geographical, historical and political aspects of the Francophone world are also studied.

FRENCH 2

Second year students continue to develop their speaking, reading, writing, and comprehension skills with particular emphasis on grammatical structures and cultural insight. Students continue cultural studies.

Prerequisite: French 1 completed with a minimum yearly average of 70.

FRENCH 3

Students improve their communication skills through the expanded study of practical vocabulary. Grammatical structures from French 2 are reviewed and advanced grammar is explored. Students explore French literature, history and current events through readings, films and the Internet.

Prerequisite: French 2 completed with a minimum yearly of 80.

FRENCH 4

French 4 presents the history and culture of France from prehistoric times to the present. Students examine the historic events, art and literature of each time period through selected readings. Students review grammatical structures, study advanced grammar, prepare writing assignments and improve their speaking skills. Fourth year languages will be offered as scheduling of students and teachers permits. Third and fourth year language classes cannot be combined and taught during a single period.

Prerequisite: French 3 completed with a minimum yearly average of 80.

LATIN 1

In Latin I, students learn basic Latin grammar concepts and vocabulary. Students will also learn about Romans and their society through studies of Roman life and classical mythology. Emphasis will be placed on Latin as a basis of the English language.

LATIN 2

Latin 2 continues the study of Latin grammar, with greater emphasis on reading proficiency. Students will also study the major events of Roman history including the political structure. Latin 2 continues its emphasis on Latin as the basis of the English language through word study.

Prerequisite: Latin 1 completed with a minimum yearly average of 70.

LATIN 3

Latin 3 students complete their study of grammar, concentrating on the more advanced concepts. Students read original prose authors and poets, with emphasis on the ability to understand Latin idioms and figures of speech. Their historical study continues with a concentration on the Imperial period.

Prerequisite: Latin 2 completed with a minimum yearly average of 80.

LATIN 4

Latin 4 students read a variety of Roman authors, including Cicero, Caesar, Pliny, Catullus, Vergil, and Ovid. They are introduced to principles of prosody and rhetorical analysis. Fourth year languages will be offered as scheduling of students and teachers permits. Third and fourth year language classes cannot be combined and taught during a single period.

Prerequisite: Latin 3 completed with a minimum yearly average of 80.

SPANISH 1

First year students participate in an introductory course in speaking, reading, writing, and listening comprehension. Culture, geography, and history are explored in the Spanish speaking world.

SPANISH 2

Second year students continue to develop their speaking, reading, writing, and listening comprehension by expanding their knowledge of vocabulary, verb tenses, and grammatical constructions. Various aspects of culture are also explored.

Prerequisite: Spanish 1 completed with a minimum yearly average of 70.

SPANISH 3

Third year students study more complex grammatical structures and verb conjugations while continuing to expand their vocabulary knowledge. Synthesis of Spanish 1 and 2 is part of the focus of Spanish 3. Cultural aspects of the Spanish speaking world including some original literature are part of this class.

Prerequisite: Spanish 2 completed with a minimum yearly average of 80.

SPANISH 4

At this intermediate level, students synthesize all they have learned in prior years and apply it daily in writing, speaking, listening, and reading. Many videos from Spanish speaking countries are shown. Original literature from a variety of famous writers from many Spanish speaking countries are included. Grammar, verb conjugations and vocabulary are practiced for full comprehension of the language. Fourth year languages will be offered as scheduling of students and teachers permit. Third and fourth year language classes cannot be combined and taught during a single period.

Prerequisite: Spanish 3 completed with a minimum yearly average of 80.

FINE ARTS

VISUAL STORYTELLING

Beginning the 2016-2017 academic year, Visual Storytelling will fulfill a fine arts credit. Visual storytelling is a year-long course open to 10th-12th grade students that focuses primarily on the creative production of short films and videos, with an emphasis on storytelling. Students view and discuss short films as a guide to how stories can be told with a fusion of words and images, and class discussions of film making techniques will further emphasize how these media are integrated. Students build video projects from the ground up, beginning with brainstorming, storyboarding, and scripting, and progressing through shooting, editing, and presenting their work. Each quarter culminates in a video project in one of several different forms or genres, with the final project of the year consisting of an extended five-minute short film that pulls together the students' skills in writing, visualizing, capturing, and crafting their ideas into a dramatic visual presentation. Throughout the year, students will develop both technical skills and storytelling skills as they create distinct and memorable videos and short films.

VISUAL ART 1

Visual Art 1 is an introduction to the design elements and principles. Each element of art will be explored with problem solving projects and the introduction and emphasis of various art principles. Three-dimensional art will be introduced through various media, styles and techniques. Drawing concepts, styles and techniques will also be explored the second semester. All projects will be studied in the context of production, art history, aesthetics and art criticism. The student will be responsible for the cost of matting and materials.

VISUAL ART 2

Visual Art 2 is an in-depth study of the techniques, styles and media used in the production of two-dimensional art. The three major areas to be studied will be drawing, painting (transparent and opaque) and printmaking. All projects will be studied in the context of production, aesthetics, art history, and art critique. The student will be responsible for the cost of matting and materials. **Prerequisite: Art 1**

VISUAL ART 3

Visual Art 3 is an in-depth study of two and three-dimensional design concepts in relation to visual problem solving. The use of art elements and principles in a professional manner will be emphasized throughout this course. A wide range of media will be used including but not limited to projects in drawing, painting, printmaking and three-dimensional design. The student will be responsible for the cost of matting and materials. **Prerequisite: Art 2**

VISUAL ART 4

Visual Art 4 is an in-depth study of two and three-dimensional design concepts in relation to visual problem-solving. The use of art elements and principles in a professional manner will be emphasized throughout the course. A wide range of media will be used including, but not limited to, projects in drawing, painting, print-making, and three-dimensional design. The student will be responsible for the cost of matting and materials. **Prerequisite: Art 3**

AP STUDIO ART: DRAWING

The Advanced Placement Studio Art program is designed for the highly motivated high school art student who is interested in working on the college level. AP Studio Art is based on a student's portfolio, which is submitted at the end of the year for review by College Board examiners. Students are required to demonstrate proficiency within the areas of breadth, quality and concentration. The drawing studio concentrates on all drawing media, styles and techniques including printmaking and transparent and opaque painting. The student will be responsible for the cost of matting and materials. AP Studio Art: Drawing is a two period block. **Parents will be charged approximately \$100 for each Advanced Placement exam.** **Prerequisite: Art 2 and instructor approval.**

AP STUDIO ART: 2-D DESIGN

The Advanced Placement Studio Art program is designed for the highly motivated high school art student who is interested in working on the college level. AP Studio Art is based on a student's portfolio, which is submitted at the end of the year for review by College Board examiners. Students are required to demonstrate proficiency within the areas of breadth, quality and concentration. The 2-D design studio concentrates on the use of the art elements and principles within all 2-D media, styles and techniques including digital applications. The student will be responsible for the cost of matting and materials. A lab is optional in the 2-D design studio. **Parents will be charged approximately \$100 for each Advanced Placement exam.** **Prerequisite: Art 1 with teacher approval**

GRAPHIC DESIGN

This course offers students an opportunity to combine their artistic and design talents with industry standard software programs to master the basics of graphic design needed for college level course work. Students will prepare a professional portfolio of designs for presentation and evaluation.

Prerequisite: Open to grades 10-12

PHOTOGRAPHY 1

The photography elective provides an opportunity for students to learn the basic fundamentals of black and white photography using a manual, 35mm, and single lens reflex camera. Students will also learn basic darkroom techniques for enlarging prints and developing film. Rules of good composition and techniques for manipulating black and white prints will also be taught. Field trips will be offered.

Prerequisite: Open to grades 10-12

PHOTOGRAPHY 2

The photography 2 elective provides an opportunity for students to learn the basic fundamentals of digital photography using the manual modes on a Nikon D3000. Students will also learn basic photo editing techniques and photo manipulation techniques using Adobe Photoshop. Students will continue to use rules of good composition learned in Photography I. Students will prepare a professional portfolio of photography for presentation and evaluation. Field trips will be offered.

Prerequisite: Photo I and instructor approval.

AP ART HISTORY

The Montgomery Museum of Fine Arts offers an AP Art History course for juniors and seniors. Students must apply through the museum. In this global survey, students explore the creations of a variety of eras and cultures, artistic traditions are examined as reflections of society, and students enjoy observing daily life in the present with an enhanced understanding of art history. The class also has the advantage of interacting with the Museum's collection, exhibitions, and visiting speakers. **Parents will be charged approximately \$100 for each Advanced Placement exam.**

THEATRE ARTS 1

Theater Arts I is designed for the beginning drama student. By reading and exploring plays from many theatre genres, the student will become more comfortable with the idea of performing and explore the many possibilities to work on stage and behind the scenes. Students learn to use voice, body, and imagination to create characters. Acting techniques such as blocking, vocal control, and audition skills are introduced. Beginning direction and production techniques are explored.

THEATRE ARTS 2

This course is an extension of Theatre Arts I. This course extends study of acting, directing, and producing plays. Students, under the supervision of the teacher, will direct scenes using other students as actors. These scenes are used to further develop skills in aesthetics and criticism. Careers in and related to theater are explored. Students will prepare to participate in the major school productions. **Prerequisite: Theatre Arts 1**

TECHNICAL THEATRE 1

This course is designed to teach and implement the basics of set design, set construction, set painting, lighting design, and sound design. Students will benefit from hands-on experience with the tools and equipment necessary for proper execution of the above. Students will also be well versed in safety techniques and procedures.

TECHNICAL THEATRE 2

This course is an extension of Technical Theatre I concentrating on advanced study of the ideas introduced in the Technical Theatre I class. Students will become more adept with the equipment and take on a leadership role within the class. **Prerequisite: Technical Theatre 1**

TECHNICAL THEATRE PRODUCTIONS

This course is geared for those students with a serious interest in working with the school theatrical productions. The class is the core class for the organizational aspects of these productions. Students are trained to operate lighting and soundboards. The school may use these students to run school related programs. Within this class, stage managers, technical directors, designers, prop masters, and house managers are cultivated to enhance the theatrical program. Outside class work is involved as those within the class are required to work with all theatre productions.

Prerequisite: Theatre Art I or Technical Theatre I and instructor's approval.

COMPETITIVE SPEECH AND DEBATE (Forensics)

Forensics is the study of communication in all forms. Members of the competitive Speech and Debate Team will learn to use communication to present speeches, perform literature, and debate topics effectively. Members of the Competitive Speech and Debate class are members of the Team. Team members will be required to travel to tournaments in places like Florida, Alabama, Texas, Illinois, Massachusetts, and many others. At tournaments team members will compete in one or more events depending on event selection. Every team member MUST keep above a C average in order to travel. The STJ Forensics team and class are founded on having fun and achieving excellence in what we do. If you want to be a part of those goals and help the team achieve success join.

CHORAL MUSIC

In Chorus, students study music through the preparation and performance of excellent repertoire from many cultures and styles of music. This study includes reading skills, historical and cultural contexts, aesthetic judgments, and critical decision-making on the parts of the performers. As appropriate, the chorus will perform at school and civic functions, festivals, and competitions that provide constructive feedback for the students.

MUSIC TECHNOLOGY

This course will provide students with the skills needed to create original music and produce professional quality recordings. Topics of study will include music theory, digital music composition, studio recording, music sampling and editing, and post production publishing. Students will achieve basic and applicable understanding of MIDI and its usage in creating music. Assimilate basic terminology used in music technology. Utilizes computers in musical applications. Demonstrate basic knowledge of various music related technologies and software programs. Overview of technologies in various music related media. Create a simple music document with aid of a music notation program. Primary software to be covered include Garage Band, Pro-tools and Finale. **Prerequisites: Grades 10-12. One previous music class – choir, band or guitar. Students with piano or guitar background could be considered by permission of instructor.**

INSTRUMENTAL MUSIC (Marching and Concert Band)

The senior band course involves the student in all aspects of instrumental music. Prior musical experience is not a prerequisite. The band performs for athletic events and participates in marching festivals, as well as the annual holiday and spring concerts. Students are expected to attend all scheduled practices, including summer band camp. Performance are a requirement of the class and are excused only in the case of illness or family emergencies. The performance calendar is provided in the spring and conflicts should be avoided.

GUITAR

This course is available to all high school students of Saint James and provides opportunities for students to develop their musical potential and aesthetic understanding through learning to play guitar. Emphasis will be placed on playing position, tone production, fundamental technique, simultaneous playing and singing, reading music, and composing songs/lyrics. Students will be exposed to reading TAB, chord symbols and traditional notation. A variety of styles will be studied including Rock, Pop, Jazz and Classical. No prerequisite course is required. Students without previous experience or those who have played guitar are welcome to enroll. Guitars will be provided.

GUITAR 2

This course provides opportunities for students to develop their musical potential and aesthetic understanding through learning to play guitar. Emphasis will be placed on a review of Level 1 skills, expanded right and left hand technique, tuning strategies, note reading in upper positions, advanced rhythms, selecting right and left hand fingerings, moveable scales, pick techniques, advanced finger style technique, barre chords, chord progressions and substitutions, theory applied to the guitar, rock techniques, classical and finger style solo repertoire.

Prerequisite: In order to be eligible for Guitar Class 2, students must have successfully completed Guitar I or audition with the class instructor.

AP MUSIC THEORY

The AP Music Theory course corresponds to two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills including dictation and other listening skills, sight-singing, and keyboard harmony are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the learning process. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized.

Prerequisites: This course is open to juniors and seniors who have successfully completed a minimum of one year of choral music, band, or private music lessons at the high school level. Teacher permission is also required.

JOURNALISM – YEARBOOK or NEWSPAPER (Iliad Yearbook and Odyssey Newspaper)

Students who wish to participate in journalism through the school newspaper (The Odyssey) or yearbook (The Iliad) must be A-B students, with good English grades and writing skills a must. They should be deadline-conscious self-starters who are interested in writing about and taking pictures of school events and personalities. Students taking Yearbook will be required to sell business ads during first semester, and students enrolled in Newspaper will sell ads throughout the year. This class can be counted as a Fine Arts credit.

Prerequisite: These courses are open to students in grades 9-12. High school or middle school sponsor/instructor approval required.

PHYSICAL EDUCATION AND HEALTH

PHYSICAL EDUCATION

The students will receive instruction in a wide variety of individual/dual activities and team sports. An emphasis is placed on lifetime activities and fitness. Classes are organized to develop skills, knowledge, insight, and interest in wholesome, vigorous, and challenging activities that can be enjoyed now and throughout life. Students who are not enrolled in Seventh Period Athletics, Athletic Weight Training, Cheerleading, or the Pom Squad must complete a year of physical education in the ninth grade.

SEVENTH PERIOD ATHLETICS

This full year course is specifically geared toward the competitive athlete participating in football, basketball, baseball, volleyball, and wrestling. All athletes will participate in a year round regimen of weight training, conditioning, and plyometrics. The athletes will be responsible for exerting maximum effort while striving for improvement in all areas. Strict supervision and instruction will be maintained. In season athletes will incorporate strength training and conditioning within the constraints of practices.

Prerequisite: Must be a member of: Volleyball, Football, Boys or Girls Basketball, Baseball, Softball, or Wrestling Teams, and receive coach's approval.

**Coach's approval and signature required.*

ATHLETIC WEIGHT TRAINING

This full year elective course is available to all high school athletes participating in any Saint James Athletic Program who are not enrolled in Seventh Period Athletics. This course is not required for team participation. All athletes will participate in a year round regimen of weight training, conditioning, and plyometrics for all sports. The athletes will be responsible for exerting maximum effort while striving for improvement in all areas. Strict supervision and instruction will be maintained.

Prerequisite: High school athletes who have permission from the coach or athletic director (if coach is not a teacher or administrator on campus)

**Coach's approval and signature may be required.*

LIFETIME HEALTH AND WELLNESS

This year-long course will include an overview of basic health issues such as the promotion of wellness, disease prevention, nutrition, healthy relationships, the negative impacts of tobacco, drugs, and alcohol, and communicable and noncommunicable diseases. In addition students will receive instruction in critical areas which teach and emphasize lifetime health and wellness. Students will take an in-depth look at topics such as nutrition; the impacts of exercise on the body; exercise alternatives for life; decision-making and health; community, state, and national health issues, initiatives, and programs from infancy through elder care; lifetime health and wellness careers; and stress and health. In addition to traditional methods of instruction, students will also be exposed to the wide array of "apps" and websites that are health related. Standards, such as those established by the National Health Education Standards would be used along with Saint James standards to define the teacher developed units.

CHEERLEADING

Students who are selected, through a tryout process, to become members of the Junior Varsity or Varsity cheerleading squads, are required to take this class. The class is taught by a coach and is not available for students who are not selected for a cheerleading squad.

TROJANETTES POM SQUAD (Dance Team)

In order to be eligible for this class, students must be selected through a tryout process. Students selected through this process are required to take the class. The class will focus on dance technique and conditioning. Team members will practice choreographed routines that will be performed at home varsity football and basketball games. This class will also focus on leadership development. Attendance at all extra-curricular events is required.

**This is a year-long course and completion and passing of both semesters will substitute for P.E. credit required for graduation.*

PRE-COLLEGE MAJOR ELECTIVES

INTRODUCTION TO BUSINESS, MARKETING AND FINANCE

This course is an elective open to grades 9-12. This course will engage students in a study of concepts and ideas similar to those presented in introductory business and marketing classes in college, and gives them practical experience in the area of personal finance. Traditional classroom instruction, on-line resources and online simulations are used to enhance learning. The team problem-solving approach is used with students often working in groups to achieve a goal. The class includes a focus on basic economic concepts and principles such as business ownership, developing a business plan, and financing a business. The field of marketing is introduced and students learn about marketing essentials such as pricing, costing, growth, and promotion. The course will conclude with a study of personal finance, including budgeting, life skills and management, consumer protection, banking and credit, insurance and investment.

INTRODUCTION TO PHILOSOPHY AND WORLD RELIGIONS

The goal is to broaden the student's understanding of what philosophy and religion encompass through the study of their various forms and teachings. The courses are open to juniors and seniors and are designed to be an objective and comparative study of various philosophical and religious disciplines and themes in history. Introduction to Philosophy is taught first semester and Introduction to World Religions is taught during second semester.

INTRODUCTION TO PRE-LAW STUDIES

Introduction to Pre-Law Studies is open to 9th-12th graders and is intended to allow students an opportunity to develop and practice skills and explore content recommended for pre-law or pre-legal studies in college and under-graduate preparation for law school. Varied topics including Youth Judicial practice, mocks trials, careers in the legal field, legal ethics and the areas of law are examined in class. Students focus on essential skills such as written and oral expression, research, and critical thinking. Relevant content related to the structure and function of the American government and legal system, with an emphasis on the judiciary, is studied. Varied topics including law school admission, careers in the legal field, legal ethics, and areas of law are examined. A focus of the class will be to allow opportunities for teamwork in the areas of decision-making, problem-solving, and presentations.

ROBOTICS AND PRE-ENGINEERING

Students will learn about various phases of the engineering profession, including computer-aided design, computer programming, construction, and marketing. The course is largely project based with both whole-class projects and smaller group projects. Robot design and construction is a major component of the course. Students will participate in various engineering design and construction competitions, including B.E.S.T. (Boosting Engineering, Science, and Technology). These competition components of the course will require students to participate in after school and weekend construction and competition events. Students will also have the opportunity to visit local companies that employ engineers of various types and to participate in engineering activities both through local industries and through nearby colleges and universities. This course does not substitute for math credit.

Prerequisites: Completion of Physical Science and at least one semester of computer.

Co-requisite: Geometry or Advanced Geometry.

SURVEY OF SPORTS MEDICINE, PHYSICAL THERAPY, AND RELATED PROFESSIONS

This course is open to grades 10-12 and offers an introduction to various health science related professions including orthopedics, rehabilitation, and sports medicine. It is designed for students interested in careers in physical therapy, sports medicine & related fields and helps prepare them for future studies by providing quality coursework and offering exposure to a variety of directed clinical experiences. Emphasis will be on educational requirements, scope of practice, professionalism, and communication in these fields and includes a study of current principles in the prevention, immediate care, treatment, and rehabilitation of injuries and illnesses. Students will gain knowledge in medical terminology, medical documentation, legal issues, anatomy, bracing, taping, and emergency procedures. This course does not substitute for science credit. This course will require students to conduct 20-30 observation hours in various fields outside of class time. Some travel to venues related to the course of study will also take place outside of class time.

THE UNITED STATES IN GLOBAL AFFAIRS

This course is open to juniors and seniors and will offer students opportunities to analyze, interpret, and discuss the ways in which the United States has played a role in shaping the world as well as the significance of the U.S. in global affairs. Specifically, students will be engaged in a study of the global concerns of U.S. foreign policy, interactions with various political systems and regimes, alternative philosophies for structuring economic systems and government, and human rights considerations. A central question of the course in examining all these topics will be the following: what role should a democratic republic play in international affairs and what values and goals should the U.S. advocate for on a global level.

OTHER ELECTIVES

INTERPERSONAL RELATIONS YOUTH LEADERSHIP (IPRYL)

Interpersonal Relations Youth Leadership is an elective course offered in conjunction with the Montgomery YMCA to high school juniors and seniors. It offers students appropriate training and the opportunity to experience mentoring relationships with elementary school students in Montgomery. The high school students serve as role models with the task of helping a young person grow in personal and academic achievement and appropriate social behavior. Through working with others, the high school students learn leadership, personal responsibility, and how to approach the community. Students will travel to assigned schools as designated.

High school youth leaders should be of good character and willing to give of their time and energy for a younger person. Prospects for the elective submit an application and attend an interview. They are expected to be outstanding in the following categories: leadership ability, cooperation, respect for authority, general attitude, dependability, willingness to work and school attendance.

Prerequisite: Application process and sponsor approval required. Open only for juniors and seniors.

HIGH/MIDDLE SCHOOL LIBRARY ASSISTANT

This course is open to all students in grades 10-12. Students will have the responsibility of assisting the librarian with the daily operation of the high school/middle school library, including helping students who are using the library. Students will learn the Dewey Decimal system, shelving, circulation, and processing of materials. In addition, they will learn about research skills and the use of online databases. Credit is given for this course and students must realize that this is not a study hall. Library assistants are expected to come to class prepared to perform their library duties. When selecting students to be library assistants, teacher input is solicited and careful consideration is given to a student's discipline record, willingness to work, school attendance and attitude. Grades are determined by job performance, motivation, and adherence to school and library policies.

****Requires librarian approval.***

ELEMENTARY LIBRARY ASSISTANT

This course is open to all students in grades 10-12. Students will have the responsibility of assisting the librarian with the daily operation of the elementary school library, including helping students who are using the library. Students will learn the Dewey Decimal system, shelving, circulation, and processing of materials. Credit is given for this course and students must realize that this is not a study hall. Library assistants are expected to come to class prepared to perform their library duties. When selecting students to be library assistants, teacher input is solicited and careful consideration is given to a student's discipline record, willingness to work, school attendance and attitude. Grades are determined by job performance, motivation, and adherence to school and library policies.

****Requires librarian approval.***

LABORATORY ASSISTANT

This is an elective course offered to high school students interested in maintaining the laboratory rooms as well as the equipment within the labs. The main tasks of the assistants are lab set up and clean up. Because the labs for the science courses vary widely, students will become familiar with a variety of equipment and tasks. Additional responsibilities include, but are not limited to, maintenance of the aquarium, inventory of equipment, and assistance with deliveries of supplies. Lab assistants are expected to work independently and efficiently. Course credit and grading are assigned based on the student's motivation and quality of work.

Prerequisite: Prior completion of biology and chemistry, and course instructor's approval.

ALL OTHER ASSISTANTS*

Saint James offers some assistantships to students in grades 11 and 12. Placement into these assistantships is highly selective and always based on faculty or administrative approval, space available, grades, conduct, attendance and availability in the student's schedule.

**Students may only take two assistantships for a maximum of four graded semesters in an assistantship.*

**Placement in all assistantships is based on approval of supervising faculty or staff.*

<u>Assistant Positions</u>	<u>Supervising Instructor</u>	<u>Maximum Number of Positions</u>
Admissions	Cathy Pearson	1
Art	Evelyn Shoults	1
Band	Susan Smith	4
Computer Assistant	Leigh Copeland	7
Elementary Library	Benjamin Martin	3
Forensics	Ian Turnipseed	5
Furlong	Shannon Ippolito	7
High School Assistant	Bryan Oliver	4
High School Library	Bobbie Limbers	14
Middle School Assistant	Leigh Anne Potts	7
Photography Assistant	Evelyn Shoults	1
Science Lab	Amanda Ousley	1
Theater	Lonny Harrison	4