SAINT PAUL'S ELECTIVES

AFJROTC (9th - 12th grade)

The mission of the Air Force Junior ROTC Program is to build stronger Lasallian citizens for the community and beyond through a proven course of education built on the Air Force values of Integrity First, Service before Self, and Excellence in All We Do. It is not part of the active or reserve military service; participants incur no service obligations. The State of Louisiana grants full physical education credit for two years of JROTC.

Art I (9th - 12th grade)

Art I is an introduction to elements of art and design. The course covers line, shape, form, and value. It includes basic drawing and design using a variety of media. Open to students with interest in art as a credit course. Students purchase some personal art supplies.

Art II (11th - 12th grade)

Art II is a continuation of study of elements of art and design. This course covers color, space, texture, and movement. It includes an introduction to three dimensional art including ceramics. It is also an introduction to painting and drawing with emphasis on design through a variety of media. Prerequisite: Art I and **written authorization by instructor**. Students purchase some personal art supplies. Out-of-class projects required.

Art III (11th - 12th grade)

Art III emphasizes elements of design and composition. This course is a continuation of drawing, painting, printmaking and sculpture. Students select four areas of specialization including but not limited to the following: two dimensional media, three dimensional media, printmaking, photography, architecture, interior design, or other with instructor's approval. Quarterly reports and out-of-class projects required. Students purchase some personal art supplies.

Prerequisite: Art I and Art II and **written authorization of instructor**.

Art IV (11th - 12th grade)

Students select four areas of specialization including but not limited to the following: two-dimensional media, three-dimensional media, printmaking, photography, architecture, interior design, or other with instructor's approval. Quarterly reports and out-of-class projects required. Students purchase some personal art supplies.

Prerequisites: Art I, II, and III, and **written authorization of instructor**.

AP Art History (10th - 12th grade)

Students will be presented with a college-level introduction to Art History, utilizing slides and lectures to teach about the relevant cultures that impacted the art throughout history from pre-history to modern times. The course focuses on aesthetics, concepts, and criticisms along with philosophical ideas that were relevant during these times. Students should be able to conduct research online and draft papers as assigned by the instructor to supplement the teaching from the slides and text. Students will take the AP Art History Exam at the end of the course. There is a cost associated with this exam.

Creative Writing (11th - 12th grade)

This course is an elective designed for students who enjoy the art of writing. Students will concentrate on the study of many different genres of writing and build on the skills developed in the English core curriculum. Students will take part in a collaborative effort to help one another improve writing skills. Students will both write and collect pieces of writing from other students to be placed in a student-produced literary magazine. **This course is offered for a semester and/or year long class depending on enrollment.**

Media Production (10-12th grade)

The media production class will teach students the execution of media production such as newscasts, short films, short documentaries, and commercials. Students will learn how to shoot efficiently for post-production, edit shot material into a coherent production, apply practical effects in post-production, perform and create as journalists and reporters in order to produce student news, set up the lighting and green screen in order to create a usable background for post production effects,

appreciate the value of excellent sound by having an acceptable understanding of how to capture the on-set sound, etc.

Aviation Fundamentals (11th - 12th grade)

This class is conducted through the JROTC program but students enrolled in ground school do not need to take regular JROTC courses. The course covers principles of flight, aircraft systems and performance, meteorology, navigation, aviation physiology, flight planning and federal aviation regulations (FARs). It is designed to prepare students for the FAA private pilot written exam.

Band (8th - 12th grade)

Students concentrate on music as it applies to the concert bands and solos. Membership in the marching band is required. This course offers individualized instruction for those who wish to become more proficient on an instrument. Concentration on perfecting reading music, ear training, conducting, and includes extensive study of music theory with drill work utilizing computer aided instruction. Students are also required to audition for District Honor Band. Students are expected to supply most instruments. Band 8-12 requires out of school time. This class meets after school and is considered an 8th period on the student's schedule.

Biology II (11th - 12th grade)

This course will mainly provide a general overview of human anatomy and physiology. Comparative anatomy between human and other species will be done throughout the year. The comparing of the species will primarily be observed through the dissection of a cat. In addition, coursework will include all other aspects of Biology such as genetics, botany, histology, and zoology.

Chemistry II (12th grade)

The Chemistry II course is designed to expand and enrich some of the topics covered in first year chemistry while introducing new concepts. Topics for Chemistry II include organic, nuclear, thermodynamics, kinetics, reaction rates, equilibrium, solutions, and electrochemistry.

Biomedical Sciences (Project Lead The Way)

- **I. Principles of Biomedical Sciences** (first in PLTW series) Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia and infectious diseases in this full-year course. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. Key biological concepts including homeostasis, metabolism, inheritance of traits and defense against disease are embedded in the curriculum. Engineering principles including the design process, feedback loops and the relationship of structure to function are also incorporated. This course is designed to provide an overview of all the courses in the Biomedical Sciences Program and lay the scientific foundations for subsequent courses.

- **II. Human Body Systems** (second in PLTW series) Students examine the interactions of body systems as they explore identity, communication, power, movement, protection and homeostatic. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases and often play the role of biomedical professionals to solve medical mysteries.

- **III. Medical Interventions** (third in PLTW series) Students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the life of a fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body. Students explore how to prevent and fight infection; screen and evaluate the code in human DNA; prevent, diagnose and treat cancer; and prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

- **Biomedical Innovations** (Prerequisite: two previous Biomedical Sciences courses). Students apply their knowledge and skills to answer questions or solve problems related to biomedical sciences. Students design innovative solutions for the health challenges of the 21st century.

Introduction to Business (9th -10th grade)

Business is an introductory level course that demonstrates how the business economy operates and ties in with personal resource management. Students will learn the basis of our economic environment and business operations including government in our economy and small business management. Students will be prepared to make decisions as consumers, wage earners, and participants in the economy.

Criminology (9th – 11th grade)

The philosophy behind this course is that the key to a successful future in legal studies begins with establishing a foundation of every aspect of the legal system. This course is designed not only to explore the theories behind crime and the influence of crime on society, but also to investigate the history, evolution, and effect of the enforcement of our legal system. The class begins with the general study of society, then proceeds into researching criminals and their crimes, later developing into the factors and procedures involved in the United States Criminal Judicial System as it applies federally and locally.

Entrepreneurship (11th and 12th grade)

Entrepreneurship is designed to equip students with introductory skills, which help prepare them to organize and run a business. Business terminology, basic entrepreneurship concepts, and fundamental operating principles are emphasized. Through this course, students are involved with activities such as developing business plans and applying economic concepts to enterprise management. They will analyze supply and demand and understand how it affects price and profit. They will also learn to calculate operational expenses in determining profit. Topics concerning ethical problems related to the workplace will be discussed, as well as solutions for some of these problems. Finally, the student will be introduced to the concept of social entrepreneurship.

Economics/Finance (11th and 12th grade)

Economics is an introduction to basic economic principles and theory relating to problem analysis, structure of our institutions and the formulation of public policies. Emphasis is placed on the broad overall performance (macro-analysis) of the economy with concentration in such areas as incomes,

employment and output; economic stability and growth; fiscal and monetary policy; and capital markets.

Marketing (10th – 12th grade)

Marketing is an introductory course of the traditional marketing principles and concepts. Students will learn the marketing aspects of a business dealing with products, sale, promotions, and distributions. Special emphasis is placed on product viability based on research and correlation into a marketing plan.

Management (10th – 12th grade)

Management introduces the functions of management. The course focuses on the theory and fundamental concepts of management including planning, organization, leadership, and control. Special emphasis is placed on the evolution of management thought and practice and its application in a global environment.

Accounting (11-12th grade)

Accounting is an introductory course to the field, and the course will delve into the following: learning terminology, balancing equations, analyzing transactions, recording and posting transactions, applying the accounting cycle, and creating and analyzing financial statements. The course is designed to elicit an interest in that career.

Philosophy (11-12th grade)

This course will provide the student with a general survey of philosophical thought, including basic epistemology, anthropology, metaphysics, and ethics. The big questions of life will be examined: Why is there something rather than nothing? Why do I exist? How do I determine right from wrong? How do I know that I know? Students will examine what it means to be human and how to achieve the goal and purpose of human life: happiness. The style of this class will be heavily concentrated on reading and discussion.

Engineering (Project Lead the Way)

- **Introduction to Engineering Design (IED)**

  Designed for 9th or 10th grade students, the major focus of IED is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

- **Principles of Engineering (POE)**

  Designed for 10th or 11th grade students, this survey course exposes students to major concepts they'll encounter in a post-secondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.

- **Civil Engineering and Architecture (CEA)**

  Students learn about various aspects of civil engineering and architecture and apply their knowledge to the design and development of residential and commercial properties and structures. In addition, students use 3D design software to design and document solutions for major course projects. Students communicate and present solutions to their peers and members of a professional community of engineers and architects. This course is designed for 11th or 12th grade students.

- **Digital Electronics (DE)**

  Digital electronics is the foundation of all modern electronic devices such as mobile phones, MP3 players, laptop computers, digital cameras and high-definition televisions. Students are introduced to the process of combinational and sequential logic design, engineering standards and technical documentation. This course is designed for 10th or 11th grade students.

- **Computer Science and Software Engineering (CSE) – may be taken as a stand-alone course or as part of the Engineering sequence)**

  CSE implements the College Board's 2013 CS Principles framework. Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce to computer science, although we encourage students without prior computing experience to start with Introduction to Computer. CSE helps students develop programming expertise and explore the working of the Internet. Projects and problems include app development, visualization of data, cyber security, robotics, and simulation. The course aligns with CSTA 3B standards.

- **Engineering Design and Development (EDD-12th grade)**

  This is the capstone course in the PLTW high school engineering program. It is an open-ended engineering research course in which students work in teams to design and develop an original solution to a well-defined and justified open-ended problem by applying an engineering design process.

Petroleum Engineering (11-12th grade)

The petroleum engineering course provides fundamental knowledge of our offshore Gulf of Mexico petroleum environment (shelf and deepwater) and encompasses the following: geology, exploration, development, and production (from processing to the consumer's use). The course also delves into project economics and project management. Marine technology is integrated into the curriculum as students create and compete with remotely operated, underwater vehicles.

Environmental Science (11th and 12th grade)

Environmental Science will begin with a study of fundamental concepts of ecology - how natural systems work and how they change over time. This will be coupled with a survey of the earth's major biomes. The nature of the relationships of various human cultures with the natural world will be examined. The class will monitor environmental quality of the Northshore. Other topics include human impact on the earth in the areas of population, resource use and management, and pollution. The concept of a responsible stewardship of the earth will place emphasis on the role of the individual in the development of new attitudes and technologies as we make the transition to a more enlightened relationship with the natural world. Class size is limited.

Fine Arts Survey

Fine Arts Survey is an introduction to works of art in visual art, music and theater. This course covers the major artists, playwrights and composers in Western Civilization. Student will experience a diverse array of art forms from a variety of civilizations. They will learn to critique art through writing assignments, to express their own creative spirit through hands-on projects and to discover how art has been affected by world historical and cultural events. Students taking this course should have good reading and writing skills and a basic knowledge of the computer as well as keyboard skills. This course satisfies the Arts requirement for the TOPS program.

Guitar (10^{th} - 12^{th})

This course offers individualized instruction for those who wish to learn to play the guitar. Students are expected to supply their own guitar within the first two weeks of the semester. This course concentrates on learning the guitar through the playing of songs.

Physical Education (Health and PE) I

This introductory course is required during the eighth grade year. Students will be introduced into the five components of physical fitness which address flexibility, muscular strength, muscular endurance, cardio endurance, and body composition. Students will do a variety of circuit training workouts which will focus on the total body and will incorporate students using their own bodies' weight to gain strength. Resistance tubing bands will also be used in this class as well as a strong focus on aerobic and anaerobic workouts. Team sports may also be played at the teacher's discretion, which activities may include flag football, volleyball, soccer, cabbage ball, and basketball. These sports will allow the student to interact with others and to learn how to work in a social setting and will focus on team work.

Physical Education (Health and PE) II and III (9^{th} - 10^{th} grades)

This is a required course for ninth and tenth grade students. Ninth grade physical education will be divided into one semester of health education and one semester of physical education. Tenth grade will be two full semesters of physical education. Health education will consist of a variety of topics focusing on the health triangle which consists of physical health, mental/emotional health, and social health. Topics consist of decision making skills, goal setting, tobacco, alcohol, and drug education, muscular and skeletal systems, as well as other major body systems, physical activity and nutrition. Physical education will take a more

detailed look at the five components of physical fitness. A major emphasis will be placed on improving and maintaining students overall health and learning skills in physical fitness and nutrition that can be used for a lifetime. Team sports may be played at the teacher's discretion and will focus on rules and team building activities.

Physical Education (Health and PE) IV and V (elective for 11th - 12th grade)

This elective course will take encompass making good nutrition choices and physical fitness as a lifetime activity. Students will have completed three full years of physical education and will be expected to try to improve their overall fitness levels by using lifetime skills they have been taught in previous classes. Exercise will be the focus that students can do with little to no equipment needed. The focus will teach them training techniques that will benefit them in their daily lives.

Physical Education, Athletic (9th - 12th grade)

This class is strictly for St. Paul's School athletic team members. It is designed to have athletes complete their in-season and off- season training programs. These programs consist of flexibility, speed training, weight training, resistance training, team building activities, and emphasis of the overall health and wellness of the student.

Introduction to Athletic Training (11th - 12th grade)

This is a lecture-laboratory course available to students with Biology II being a helpful, but not required, prerequisite. The course will require field experience work in addition to classroom work. The first semester course will emphasize the basic fundamentals used by an athletic trainer. Major emphasis will be given to prevention and immediate care of athletic injuries dealing with anatomy, injury systems, and specific tests to help make preliminary evaluation of injuries. The second semester course will emphasize secondary evaluation and rehabilitation of athletic injuries by the athletic trainer. Major emphasis will be given to knowledge of numerous modalities and therapeutic techniques used to successfully rehabilitate an injured athlete. This course would be beneficial to any student thinking about pursuing any allied health profession. Prerequisite: Biology I

Journalism/Newspaper (11th - 12th grade)

This is a "hands-on" course giving the student a detailed experience in the production of school publications such as the school newspaper and other school related programs. Emphasis is on the responsible news writing and reporting necessary to produce a bi-monthly school newspaper. The class includes extensive use of publication software and organization of hard copy as dictated by specific publication genres.

Law Studies (9th - 12th grade)

The first semester course is an introduction to our criminal and civil court systems, juvenile law, and landmark decisions of the United States Supreme Court. The second semester course focuses on such personal law topics as contracts, insurances, checking accounts, income tax preparations, marriage and divorce laws and wills.

Lifetime Fitness (11th and 12th grade)

This course is designed to give students a sample of several different fitness activities while encouraging them to maintain a healthy and active lifestyle. This course will provide students with new skills, experiences, and practical information needed to maintain physical, emotional, and social health through life. This course aims to introduce students to the five components of physical fitness: cardiovascular endurance, muscular endurance, muscular strength, flexibility, and body composition. Students will learn how to measure each component through different types of fitness activities, including yoga, Pilates, strength training, and cardiovascular training. Muscular strength and endurance will be improved using a variety of body weight resistance exercises. In addition, the class will focus on nutritional and diet needs for the active student and athlete. Guest speakers and classroom activities will allow the students to explore other topics related to health and fitness.

Music Appreciation (10th - 12th grade)

This class will cover music from ancient Greece to present day. The course will not only cover classical music but also pop-music and how they relate to each other. We will also discuss musical phrasing and form in music. The goal of this course is not only to expand our skills as listeners, but also redefine what we consider music to be, in the process stimulating a fresh approach to our own diverse musical traditions. This class also will be a survey of classical, popular, and folk music traditions from around the world. In addition, the role of music as ritual, aesthetic experience, mode of communication, and artistic expression is explored.

Music Theory (10th - 12th grade)

This course is open to experienced instrumental musicians and vocal musicians. This course will use a historical approach to teaching music theory. Students will be expected to read full orchestral scores, compose original music that will be performed, analyze aural examples of varied repertoire of music ear training. We will also discuss musical phrasing and form in music and is designed to enhance the overall reading and playing skills of the musician. The curriculum will include both music theory and music history classifying music by its genre or style and by historical period. **Permission of instructor required for enrollment.**

Percussion (9th - 12th grade)

This course offers individual instruction in playing drums. Concentration on learning drums through playing songs and cadences used by the Marching band, as well as an in depth study of the drum set and set styles such as rock, jazz, funk, reggae, and others including standard drum rudiments and rudimentary exercises.

Psychology (11th - 12th grade)

An introductory course including: Theories (Freud, Adler, Gestalt), Methods of Research (threats to internal validity, heredity, and our genetic background), Sleep and Dreams, Sensation and Perception, Stress and Health, and Abnormal Psychology (depression, anxiety, psychosis).

Spanish III (10th - 12th grade)

Spanish III is an elective course in Spanish as a second language. The class is conducted exclusively in Spanish. Students are expected to understand, process, and express complete and meaningful ideas communicatively. There is a strong emphasis in interactive oral communication using pair and group settings. Class materials are taken and prepared from the recreational, social, and cultural life of native Spanish speakers (TV commercials, soap operas, movies, music, magazines, books, etc.).

Prerequisites: Spanish I and II

Spanish IV H (11th - 12th grade)

Spanish IV is an elective Honors course in Spanish designed to further the student's understanding and use of the Spanish language and the culture of the Hispanic world. The class is conducted exclusively in Spanish. Interactive oral communication is emphasized in the class setting. Frequent research and writing projects are required.

Spanish V H (11th - 12th grade)

This is an Honors course in Spanish as a second language. Students continue working on their individual strengths and weaknesses to become successful users of Spanish as a second language. The use of Spanish is mandatory throughout the class. Extensive reading and writing assignments in Spanish are an integral part of the learning process. Class materials are taken and prepared from the recreational, social, and cultural life of native Spanish speakers (TV commercials, soap operas, movies, music, magazines, books, etc.).

Prerequisite: Spanish I, II, III, and IV

Speech (10th - 12th grade)

Speech offers a practical approach to the fundamental concepts and techniques of public speaking. This course includes the study and practice of presentational skills and confidence building. Major units include informative and persuasive speaking, debate, oral interpretation and scene study.

Statistics AP (11th - 12th grade)

Students will discover concepts of statistics while working through "laboratory" experiences. The traditional lectures will be supplemented by a program that requires active participation of the students. These activities are organized around several major topics: exploring data, relating data collection, and analysis to the solving of real problems, randomness, sampling distribution, estimation and hypothesis testing, sampling error, confidence interval and modeling the relationship between 2 variables especially through the use of least-squares regression.

Prerequisite: Algebra I, II and Geometry

Theater I (9th - 12th grade)

An overview of theater including a study of basic acting techniques and skills, improvisational work, scene work, technical work on school productions and work on an original one act play written, directed and produced by drama students. **Out of class time required.**

Theater II (10th - 12th grade)

An in-depth study of characterization, monologues, scene work, play writing skills, and children's theatre performed in area schools. Additional work on basic acting techniques and skills, improvisational work, scene work, technical work on school productions and work on an original once act play written, directed and produced by drama students. **Out of class time required.**

Theater III (Film Studies / Video Production) (11th - 12th grade)

The course offers an overview of film through the study of contemporary and classic films. The course includes film analysis, video production, and play production. **Out of class time required. Permission of instructor required for enrollment.**

Yearbook (10th - 12th grade)

The Yearbook course includes photography, layout, design, and computer presentation of copy fundamentals. Admission to course is by permission of instructor only. Students must be able to work independently on assignments. Out of class time is required. **Admission to course requires the permission of instructor.**

Online Courses:

Students may enroll in various online courses not offered at St. Paul's as substitutes for offered electives. Permission of the counselor and Academic Assistant Principal are required. Fees usually apply for these online courses.