

St. Pius X High School

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spxkc.org

Course Catalog 2021-2022

Academic Excellence

St. Pius X High School has been providing academic excellence to the Northland of Kansas City, Missouri for nearly 60 years. Through a diversified curriculum, offering a variety of core and elective courses, we challenge each student to reach his/her full academic potential.

Graduation Requirements ~ 27 Credits required for graduation

English 4 Credits
Religion 4 Credits
Social Studies 4 Credits
Math 3 Credits*
Science 3 Credits
Fine Art 1 Credit
Practical Art 1/2 Credit
Physical Education 1 Credit
Speech/Oral Interp./Drama 1/2 Credit
Health 1/2 Credit
Personal Finance 1/2 Credit
Electives 5 Credits

Two Credits of Foreign Language are Strongly Recommended

*Four Math Credits are Strongly Recommended

HONORS COURSES: Honors courses cover more material at a faster pace and require more homework than regular courses.

AP (ADVANCED PLACEMENT): Courses designated Advanced Placement (AP) courses conform to the guidelines set forth by the College Board. Students must understand that they are committing themselves to work at a college level. The AP Exam will be given the first two weeks of May. AP classes are weighted courses on a scale of 5.0.

ACCP (ADVANCED COLLEGE CREDIT PROGRAM): Courses designated as (ACCP) Courses conform to the guidelines set forth by the University that sponsors the class. At St Pius X, ACCP courses are offered through Rockhurst University, Missouri Western State University, and UMKC.

AP/ACCP classes **usually** require a cumulative 3.00 GPA and students must be a Junior or Senior. Departments will recommend a student for an honors, AP classes, and ACCP classes on the basis of:

- 1) teachers' recommendations;
- 2) the student's interest and motivation;
- 3) placement tests;
- 4) grades in previous classes; and
- 5) parent approval.

BUSINESS & TECHNOLOGY

AP Computer Science Principles

Grade Level: 11,12

Course Length: 1 Year

Credit: 1

Course Description: Students will develop computational thinking skills vital for success across all disciplines,

including the use of computational tools to analyze and study data. Students will work with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world.

Programming I

Grade Level: 11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: Completion of Algebra II with a B+ or Higher, Teacher Signature Required.

Course Description: This is a beginning course in programming, with emphasis on developing simple Windows applications using VB.net. Topics include foundations of structured programming, the VB Interactive Development Environment, forms, controls, dialogs and properties, subroutines and functions, and error handling.

Programming II

Grade Level: 11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: Completion of Programming 1 and teacher Signature Required.

Course Description: This Course will explore and build skills in programming and a basic understanding of the fundamentals of procedural program development using structured, modular concepts. Coursework emphasizes logical program design involving user-defined functions and standard structure elements. Discussions will include the role of data types, variables, structures, addressable memory locations, arrays and pointers, and data file access methods. An emphasis on logical program design using a modular approach, which involves task oriented program functions.

Web Development I

Grade Level: 11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: Completion of Algebra II with a B+ or Higher, Teacher Signature Required

Course Description: This course entails the study of concepts of web site design and maintenance using HTML and software such as Dreamweaver, or Frontpage. This course also covers text styles, images, Web-based database access concepts using MySQL or other relational databases. Students encounter an introduction to PHP, Javascript, and relational database concepts.

Accounting I

Grade Level: 10,11,12

Course Length: 1 Semester

Credit: ½

Course Description: This course instructs about the use of various accounting forms used in modern business. Bookkeeping is a skill for

employment and contributes to a better understanding of the behind-the-scenes activities in business.

Accounting II

Grade Level: 10,11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: Successful Completion of Accounting I

Course Description: This course is designed for the future college and/or business student. The content of the course consists of additional accounting practices using the different types of journals and forms shifting the emphasis from record keeping to business management decisions, partnership, and corporate accounting. Recommended for Accounting I students with a final semester grade of B- or above.

Business Management & Entrepreneurship

Grade Level: 11,12

Course Length: 1 Semester

Credit: ½

Course Description: In this course, the student will learn the basics needed to plan and launch their own business. If a student strongly desires to start a new business, or if (s)he has an idea for a business and needs the tools to get started, this course will provide the core skills needed to become a successful entrepreneur. The student will study the characteristics of successful entrepreneurs, learning about self-employment and basic economic concepts related to small businesses, such as competition and production. This course will take a student's idea for one's own business

and write a full-fledged business plan ready to present in front of any investor.

Business Applications & Operations

Grade Level: 10,11,12

Course Length: 1 Semester

Credit: ½

Course Description: The focus of this course is on business productivity software applications and professional behavior in computing, including word processing (as needed), spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. The course will offer students the opportunity to demonstrate computer and Internet literacy. It is an excellent starting point for learning the basics of computer and internet functionality. They will engage in many activities that will assess and analyze their computer skills. This will help build a solid foundation and give individuals the confidence needed to be a successful part of today's digital world.

Personal Finance & Investments

Grade Level: 10,11,12

Course Length: 1 Semester

Credit: ½

Course Description: This course is designed to give students an introduction to the basic fundamentals of personal finance. The content of this course will consist of basic concepts such as balancing a checkbook and preparing a personal budget. The course will provide students with a first hand look at money management and personal investment techniques on a daily, monthly and annual basis. Students will keep a weekly journal and

will work on several individual and group projects; in addition, they use a textbook/workbook but will also incorporate other outside business periodicals such as the Wall Street Journal.

ENGLISH

English I

Grade Level: 9

Course Length: 1 Year

Credit: 1

Course Description: This course focuses on all areas of communication: reading, writing, listening, and speaking. Students will explore various genres, time periods, and cultures through required and self-selected literature. Students will enhance writing skills through vocabulary, grammar, MLA formatting, and journal writing; in addition, one will use prior knowledge and hopefully gain new knowledge and understanding in the areas of research, test taking, study skills, and organizational methods.

English I Honors

Grade Level: 9

Course Length: 1 Year

Credit: 1

Prerequisite: Entrance Exam Score and Writing Sample

Course Description: Students will focus on reading and strengthening their writing skills. Students will read six novels, including *The Odyssey* and *To Kill A Mockingbird*. The literature in class will also focus on one Shakespearean drama, *Romeo and Juliet*. Freshmen Honors English will also focus on developing critical

thinking skills, emphasizing all areas of communication such as reading, writing, listening and speaking. Students will be expected to write at least four major writing assignments per semester, which will center on reading selections. In addition, a five page research paper over a topic assigned by the instructor will be expected. Vocabulary study will include verbal analogies.

English II

Grade Level: 10

Course Length: 1 Year

Credit: 1

Prerequisite: English I

Course Description: Literature study focuses on types: short stories, poetry selections, including at least one Shakespearean play *The Merchant of Venice* and several novels. Vocabulary study will include verbal analogies generated primarily from the readings. Students will strengthen writing skills in paragraph writing, emphasizing correct grammar, word choice, and organization. Writing projects will center on reading selections as well as expository and persuasive essays of two-three pages in length. A research paper of 5-7 pages in length is an expectation using MLA format.

AP English II

Grade Level: 10

Course Length: 1 Year

Credit: 1

Prerequisite: A Grade of B or Higher in English I & Teacher Recommendation

Course Description: This course emphasizes the development of skills in

critical reading primarily of American Literature and in writing about and discussing literature and related ideas. Students must be willing to devote the energy necessary to complete a more rigorous and demanding English II course. Writings for the course include analytical persuasive essays, journals and other reflective writings, all emphasizing a close reading of the literature. Students will complete some timed writings that simulate AP exam essay questions. A 7 page (minimum) research paper will be completed that requires use of digital print, and database sources. Support of the student's thesis will require documentation and personal insight and synthesis.

It is assumed that students will take the AP English Literature and Composition Exam in May.

English III

Grade Level: 11

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of English II

Course Description: Students will study a variety of literary forms in American literature through assigned reading, lectures, discussions, individual and group projects, writing assignments and cooperative learning activities. Students will work to become more effective communicators in written and verbal communication. The course will develop interpretive reading, critical thinking skills, argumentative and expository essay writing, vocabulary, and activities designed to develop reading

comprehension, grammar, mechanics, and usage skills.

AP English III

Grade Level: 11

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of English II or AP English II & Recommendation of English II, AP English II Teacher and AP English III Teacher.

Course Description: This course emphasizes the development of critical reading and writing skills. Building upon study of various genres of literature, primarily American Literature, the course will include study of fiction and nonfiction. Essays written for the course will be analytical and persuasive in form and emphasize a close reading of the literature. Students in this course take the AP English Language and Composition examination in May for which they may receive college credit or placement in upper level courses. Students are expected to do summer reading, and complete a research paper.

English IV

Grade Level: 12

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of English III or Honors English III

Course Description: British/World Literature - This course combines the study of British literature with written composition. It provides the student with a broad overview from *Beowulf* through *The Canterbury Tales* and into the 20th century. Different critical approaches to literature are taught,

focusing on British and world authors. Essays are primarily persuasive in nature and emphasizing critical thinking. In addition, the students complete a ten page research paper.

ACCP English IV

Grade Level: 12

Course Length: 1 Year

Credit: 1 (College Credit Available)

Prerequisite: A Grade of B+ or Higher in English III or AP English III &

Teacher Recommendation

Course Fee: Based upon Rockhurst University course fee requirements

Course Description: The first course in College Composition (EN 1110) (ACCP at St. Pius X) is designed for students to develop their abilities and skills in all phases of the writing process: pre-writing or planning, writing or composing; re-writing; copyediting or proofreading, and exploring research. The following rhetorical strategies will be implemented toward the fulfillment of the objectives listed below: (1) exemplification; (2) description; (3) narration; (4) process analysis; (5) comparison and contrast; (6) definition; (7) cause and effect; and (8) argumentation.

The combining of such strategies will also be emphasized, and correct use of grammar or mechanics will be required. Much of the writing expression will entail analysis and interpretation of literature as well as critiquing and developing an effective voice and style. A ten page research paper will be required using appropriate MLA style and "Works Cited."

Introduction to Speech

Grade Level: 9

Course Length: 1 Semester

Credit: ½

Course Description: Introduction to Speech is a survey course in the basic principles of oral communication. This includes the study of the use of the body, voice, speaker/listener relationships, and verbal and nonverbal communications. Students will be taught how to present themselves professionally and confidently while delivering a variety of speeches.

Creative Writing

Grade Level: 10, 11, 12

Course Length: 1 Semester

Credit ½

Course Description: Creative writing is a class that refines the ability to write high-quality prose and poetry. We also focus on learning three forms of nonfiction writing, as well as writing plays and screenplays. By the end of the class, students will have a portfolio of their own original work. Students are also given information about writing contests that they can enter that award publication, scholarship money, cash, or a combination of these. Entering contests is voluntary.

FINE ARTS

Sarton Singers

Grade Level: 9, 10, 11, 12

Course Length: 1 Year

Credit: 1

Prerequisite: Audition Required for Enrollment

Course Description: This performance-based ensemble is designed for the more experienced singer. It is open to male and female students in Grades 9 through 12. This group will sing for school liturgies, programs, and events/competitions outside of school. Participation in such events is mandatory. Music, theory, and vocal development are more advanced than that of Mixed Chorus. Enrollment is by vocal audition, proven knowledge of theory, and permission of the instructor. Students in Sartons usually enter the District Music Competition with many qualifying for State.

Mixed Chorus

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit: 1

Course Description: This is a course for the novice singer. Students will learn the basic elements of vocal production and part-singing. Music elements and theory will also be presented. This group is performance-based and will sing for various programs. Students enrolled in Mixed Chorus will have the opportunity to audition for District and State Solo/Ensemble competition in the Spring.

Music Appreciation

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit: 1

Course Description: This course will introduce basic musical terms and music history, including important genres, composers, musical eras, and inventions. The primary focus of this course is the development of listening

skills and general understanding of Western music.

Drum Core

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Teacher Recommendation

Course Description: This is a small ensemble that will primarily be used to perform at pep rallies and athletic events. Throughout the course we will explore various types of drumline repertoire as well as marching fundamentals. This course fulfills a fine arts credit.

Art I

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit: 1

Course Description: The students, through their experience with the basic techniques of drawing and design, will create a variety of media in progression. The concentration is on 2-dimensional work. The goal is creativity, productivity and satisfaction. The elements and principles of art as well as art history are studied in the text and used in class. Homework also includes skill assignments. Semester tests include the text, theory and resource materials.

Art II: Drawing

Grade Level: 10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Art I

Course Description: This course offers students greater depth in color, drawing, and realistic rendering. 2-D

media including ink, paint, pastels, watercolors. Drawing and painting include direct observation, portrait, nature, and a variety of subject matters. Art criticism, esthetics and art history in more scope is covered in each text. Semester tests cover art theory, art history and resource material.

Advanced Art III: Painting and Drawing

Grade Level: 11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Art II and Instructors Approval

Course Description: Advanced Art is intended to address purposeful decision making about using the elements and principles of art in an integrative way mainly in the painting and drawing mediums. The content of this course includes advanced color theory and applied design along with more advanced drawing technique and use of skills. The student should demonstrate an understanding of design principles as applied to two-dimensional surfaces. Students will work in both painting and drawing mediums to begin to identify and explore their artistic voice. It is the opportunity to prepare quality artwork and start to build their portfolio for possible AP drawing or college submittance.

AP Studio Art

Grade Level: 11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Art III and Instructors Approval

Course Description: This course

emphasizes the development of skills needed both for scholarships and the AP examination. It is for the serious art student who is willing to devote the energy and time to balance their portfolio with the requirements and number of pieces AP requires.

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Independent Art IV

Grade Level: 12

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Art I, II & III and Instructors Approval

Course Description: Independent Art is intended for the art student who is ready to take the challenge of working independently from concept to execution of the idea. Students are encouraged to find areas of interest through media, subject matter or history and develop these into original works of art. Students will have required subject matter and total number of works finished at the end of each semester.

Design Fundamentals

Grade Level: 10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Art I

Course Description: In this course, students will learn basic skills of

Graphic Design using computer programs for photo manipulation and text design. Students will observe and study a variety of advertisement layouts, product design, logos and more technological design concepts. Students will need to plan, create and produce free hand and on the computer original ideas.

Drama

Grade Level: 9,10,11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: none

Course Description: In this course, students will learn basic theater principles in stage movement, voice, diction, and pantomime. The history and vocabulary of theater and of award winning plays will be explored. Drama will also work on practice techniques to overcome stage-fright and develop self-confidence. Attendance or participation in the school plays are required.

Oral Interpretation/Debate

Grade Level: 10,11,12

Course Length: 1 Semester

Credit: 1

Prerequisite: none

Course Description: This course covers a variety of styles of public speaking and formal debate and speech techniques. Students will become familiar with these styles through instruction, research, and practice. This course teaches students how to participate in the rational exchange of ideas and arguments as they relate to significant social issues. Debate and speech events sharpen speaking and/or acting skills. This class is ultimately for

students who want to explore debate in a noncompetitive environment, but may choose to participate in the debate team. The number of expected debate competitions may vary.

MATH

8th Grade Algebra

Grade Level: 8

Course Length: 1 Year

Credit: 1

Prerequisite: This course is offered to 8th graders from the Catholic partner schools in the Northland. Students are admitted by merit. A math exam is given in the month of May. Enrollment will be limited to 25 students. (Students not currently attending one of the Northland partner schools may call the principal for more information.)

Course Description: Students in this course will acquire the algebraic skills necessary for success in future math courses. Topics covered include: solving and graphing (one and two variable) linear equations and inequalities, problem solving, factoring, solving systems of linear equations, simplifying rational expressions, simplifying radicals, fractional exponents, imaginary numbers, and an introduction to linear and quadratic functions. This course is the foundation for further mathematical understanding and success.

Algebra I Test-Out Option

8th Grade Students who successfully pass the final exam for Algebra I may enroll in Geometry.

Algebra I Test-Out Option

Algebra I (B)

Grade Level: 9

Course Length: 1 Year

Credit: 1

Prerequisite: Placement based on HSPT and 8th grade teacher recommendations

Course Description: Students in this course will, at a controlled pace, acquire the algebraic skills necessary for success in future math courses. Topics covered include: solving and graphing (one and two variable) linear equations and inequalities, some problem solving, factoring, solving systems of linear equations, simplifying rational expressions, simplifying radicals, and an introduction to linear and quadratic functions. This course is the foundation for further mathematical understanding and success.

Algebra I

Grade Level: 9

Course Length: 1 Year

Credit: 1

Prerequisite: Placement based on HSPT and 8th grade teacher recommendations

Course Description: Students in this course will acquire the algebraic skills necessary for success in future math courses. Topics covered include: solving and graphing (one and two variable) linear equations and inequalities, problem solving, factoring, solving systems of linear equations, simplifying rational expressions, simplifying radicals, and an introduction to linear and quadratic functions. This course provides the foundation for further

mathematical understanding and success.

Honors Algebra I

Grade Level: 9

Course Length: 1 Year

Credit: 1

Prerequisite: Placement based on HSPT and 8th grade teacher recommendations

Course Description: Students in this course will acquire the algebraic skills necessary for success in future math courses. Topics covered include: solving and graphing (one and two variable) linear equations and inequalities, problem solving, factoring, solving systems of linear equations, simplifying rational expressions, simplifying radicals, fractional exponents, imaginary numbers, and an introduction to linear and quadratic functions. This course provides the foundation for further mathematical understanding and success.

Geometry

Grade Level: 9,10

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Algebra I and Teacher Recommendation

Course Description: This course provides a study of: polygons, congruency and classification of triangles, deductive proofs, circles and their angles, right triangles, areas and volumes of plane and solid figures, basic transformations, basic constructions, ratio and proportions of similar triangles, and coordinate geometry. Mathematical vocabulary

will be stressed and students will review algebra skills.

Geometry B

Grade Level: 10

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Algebra I (B) or Algebra I

Course Description: This course provides the next sequential course for students who were enrolled in Algebra 1B. This course will include a more controlled study of: polygons, congruency and classifications of triangles, circles and their angles, right triangles, areas and volumes of some solid figures, basic transformations, ratio and proportions of similar triangles, and coordinate geometry. Mathematical vocabulary will be stressed and students will spend a significant amount of time reviewing algebra skills.

Honors Geometry

Grade Level: 9,10

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of SPX Honors Algebra I, or completion of Algebra I and Teacher recommendation.

Course Description: This course will include an intense study of: polygons, congruency and classifications of triangles, deductive proofs, circles and their angles, right triangles, the Law of Sines and Cosines, areas and volumes of plane and solid figures, basic transformations, constructions of geometric figures, ratio and proportions of similar triangles, and coordinate geometry. In addition,

students will develop visual skills, expand their mathematical vocabulary and review algebra skills necessary for success in Honors Algebra II. The topics taught, primarily through lecture and demonstration of problem solving, will be reinforced with daily assignments.

Algebra II

Grade Level: 10,11,12

Credit: 1

Course Length: 1 Year

Prerequisite: Successful Completion of Algebra I

Course Description: This course offers a review of algebra followed by the study of functions (linear, quadratic, higher order polynomials, absolute values and logarithmic) and their graphs. Students will also study complex fractions, exponents, nth roots, matrices, and variation. Upon successful completion, this course prepares students for Trigonometry or College Algebra. Other students will be encouraged to enroll in Introduction to College Algebra.

Note: Algebra II does not provide adequate preparation for Pre-Calculus.

Honors Algebra II

Grade Level: 10,11

Course Length: 1 Year

Credit: 1

Prerequisite: Algebra 1 Honors or teacher approval if enrolled in Algebra 1

Course Description: This course begins with a review of Algebra 1 Honors topics, followed by the study of linear functions, complex numbers, quadratic equations and functions, variation, conic sections, exponential

and logarithmic functions, sequences and series, permutations and combinations, and matrices and determinants. This course is required for students who wish to take Pre-Calculus. Students will be expected to keep up with the daily assignments and must have the ability to work independently outside the classroom.

Introduction to College Algebra

Grade Level: 11,12

Credit: 1

Course Length: 1 Year

Prerequisite: Successful Completion of Algebra II

Course Description: This course will begin with a review of Algebra 2 to provide the student with a solid foundation for college level mathematics courses. Students will then progress to more advanced concepts such as conic sections, exponential and logarithmic functions, and sequences and series. Students will also be introduced to topics from College Algebra. This course will also focus on ACT preparation prior to all national testing dates.

ACCP College Algebra

Grade Level: 11,12

Credit: 1 (College Credit Available)

Course Length: 1 Year

Prerequisite: Successful completion of Algebra 2; 3.00 unweighted cumulative GPA or 21 ACT score (if taking this course for college credit); and Based upon UMKC course fee requirements

Course Description: This course addresses fundamentals of basic algebra. Topics include the real number system, basic operations of algebra,

polynomial functions (linear, quadratic, and higher degree), inequalities, functions and graphs, systems of equations, exponential and logarithmic functions, and arithmetic and geometric sequences. This course is intended for students needing a thorough study of algebra in preparation for college level math courses for a liberal arts or business major. Students may elect to sign up for advanced college credit through UMKC.

Statistics

Grade Level: 11,12

Credit: ½

Course Length: 1 Semester

Prerequisite: Completion of or currently enrolled in Algebra II

Course Description: A concentration on the analysis of both descriptive and inferential statistics with probability, estimation, averages and variations, distributions, hypothesis testing and correlation emphasized. Students will apply statistics through activities and projects including probability, testing ideas, hypothesis, distribution and accumulation of data. The concepts learned in this course will be used in many college degree programs and career choices. This is a stand alone math elective and does not need to be taken in combination with Trigonometry.

Trigonometry

Grade Level: 11,12

Credit: ½

Course Length: 1 Semester

Prerequisite: Algebra II

Course Description: Trigonometry includes solving right and non-right triangles and appropriate application

problems, the degree and radian measure of angles, the definition of the six trigonometric functions, graphing of the six functions, the solution of conditional trigonometric equations, the verification and usefulness of identities, and the inverse trigonometric functions. This is a stand alone math elective and does not need to be taken in combination with Statistics.

PreCalculus

Grade Level: 11,12

Credit: 1

Course Length: 1 Year

Prerequisite: completion of Algebra II Honors, College Algebra, or Algebra II with teacher recommendation

Course Description: This course addresses the fundamental topics of algebra and trigonometry necessary for Calculus. Topics include linear, quadratic, and miscellaneous equations and inequalities; relations and functions including polynomial, rational, exponential, and logarithmic functions; graphing; systems of equations; matrices; the degree and radian measure of angles; the definition of the six trigonometric functions; the solution of triangles and appropriate application problems; the graphing of the circular functions; the solution of conditional trigonometric equations; the verification and usefulness of identities; the inverse trigonometric functions; the trigonometric form of a complex number and polar curves.

ACCP Calculus I

Grade Level: 12

Credit: 1 (College Credit Available)

Course Length: 1 Year

Prerequisite: Successful completion of PreCalculus and Teacher

Recommendation and 3.0

unweighted cumulative GPA or 21

ACT Score (if taking this course for college credit)

Course Fee: Based upon UMKC course fee requirements

Course Description: This course aims to provide a working knowledge of the concepts and theorems of elementary calculus of functions of one variable. Topics covered include a review of precalculus, limits, derivatives, and integrals of a wide variety of functions and their applications to curve sketching, maximum and minimum problems, area and volume. Students may elect to sign up for advanced college credit through UMKC.

PHYSICAL EDUCATION

Physical Education I

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit ½

Prerequisite: None

Course Description: This course will present an overview of physical fitness, team sports, and a healthy lifestyle. Students will participate two days a week in fitness exercises, two days in skill development related to selected team sports, and one day per week in a classroom setting discussing healthy lifestyle issues.

Weight Training I

Grade Level: 9,10,11,12

Course Length: 1 Semester

Credit ½

Prerequisite: None

Course Description: A beginning class in overall body fitness and strength training. Emphasis is placed on major muscle groups and how they relate to overall physical fitness. Active participation is required.

Weight Training II

Grade Level: 9,10,11,12

Course Length: 1 Semester

Credit ½

Prerequisite: None

Course Description: Advanced strength training utilizing periodization methods, plyometrics, and speed development. Heavy exertion and active participation are required.

Health

Grade Level: 9

Course Length: 1 Semester

Credit ½

Prerequisite: None

Course Description: The Health curriculum plans, sequential and targeted lessons to establish an individual basis for wellness; including the physical, mental, emotional, spiritual and social health dimensions. Raising awareness of healthy behaviors and risks is a critical step in motivating a positive change in teen health behaviors.

PRACTICAL ARTS

Programming (Refer to Business & Technology Dept.)

Teacher/Office/Library Aide

Grade Level: 12

Course: 1 semester or 1 Year

Credit: 1/4 Credit per Semester

Prerequisite: Teacher/Library/Office Personnel Recommendation

Course Description: Students apply for these aide positions. Teacher aides assist a specific teacher with tasks requested. Office aides work with personnel in the main office. Library aides work in the library, assisting the librarian with requested tasks and cleaning the library tables and computer workstations.

Education Practicum

Grade Level: 11, 12

Course: 1 semester or 1 Year

Credit: ½ credit per Semester

Course Description: Education Practicum is a practical course where students will help other students who may need additional help to access the curriculum. Students, known as Peer Mentors, will be assigned to a teacher at St. Pius X High School and they will help the students in that class in various ways. Peer Mentors may help out in the class by helping students take notes, get organized, complete assignments, and remain on task, as well as any other ways that the teacher sees fit.

Design Fundamentals

Grade Level: 10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Art I

Course Description: In this course, students will learn basic skills of Graphic Design using computer programs for photo manipulation and

text design. Students will observe and study a variety of advertisement layouts, product design, logos and more technological design concepts. Students will need to plan, create and produce free hand and on the computer original ideas.

Technology & Design Concepts II

Grade Level: 10,11,12

Course Length: 1 year

Credit: 1

Prerequisite: Art I & Design

Fundamentals

Course Description: This course will build on Design Fundamentals I, but will broaden the scope to more design fields: architecture, furniture, product, etc. Students will use both drawing and computer skills.

Yearbook

Grade Level: 10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: None

Course Description: This course is designed to teach the skills necessary to produce the school yearbook, providing study and practice in gathering and analyzing information, interviewing, notetaking and photography. In addition, students will study magazine journalism, including layout and design techniques, writing and editing copy, headlines and picture captions; furthermore, students will learn strategies of planning, marketing (ad sales), distribution, proofing strategies, and working independently with photographers.

Course Competencies: applying basic principles of page design and layout,

operating software, writing copy for captions and text, shooting, selecting, and cropping photographs for layout, and executing a publication strategy.

Classroom Expectations: attendance, including working after school and/or on weekends; a positive attitude; adhering to behavior and school policy outlined in the handbook, mature behavior, respect for school property, confidentiality for yearbook content, meeting deadlines, selling ads, respect for the leadership roles of your peers, and a strong work ethic.

Broadcast Journalism

Grade Level: 10,11,12

Course Length: 1 Semester or 1 Year

Credit: ½ or 1

Prerequisite: Teacher approval required - Limit 15 students

Course Description: Broadcast Journalism will provide students with the skills and knowledge to be informed consumers of media in a technological society. Our main responsibility is to produce the daily announcements (the X-Factor), cover school events, and learn the purpose and skills of journalism. The course provides the opportunity for students to learn basic journalistic and technological skills used in a career of radio, digital, and television production. Students will research, gather, and analyze information to create audio & video productions for broadcast to a variety of audiences. In this course, students will work with sensitive equipment, so they must be responsible and trustworthy. In addition, students must be self-motivated, dependable, and able to work well as a team. Student

tasks include script writing, video recording, and video editing. They will also assist the St. Pius X community and staff on video projects, as needed. Students will gain an understanding of pre-production, on-air, and post-production roles and responsibilities of news broadcasting. Outside work is expected.

SCIENCE

INTEGRATED CONCEPTS OF HIGH SCHOOL SCIENCE

Grade Level: 9

Course Length: 1 Year

Credit: 1

Course Description: Integrated Concepts of High School Science is a physical science course focusing on concepts of chemistry and physics. The first semester concentrates on the processes of science using topics in chemistry to demonstrate these processes. The second semester concentrates on measurement and the collection, presentation and processing of data using physics (primarily motion concepts) to practice these concepts. In the second semester, there is a heavy emphasis on graphing techniques and the interpretation of graphs.

Science Test-Out Option

8th Grade Students who successfully pass the final exam for ICHSS may enroll in Biology.

Biology

Grade Level: 9,10

Course Length: 1 Year

Credit: 1

Course Description: Biology attempts

to identify, explain, and predict the phenomenon of life from the molecular, cellular, individual, and ecological levels. Units focus on (1) food (units of general chemistry, chemicals of life, movement through membranes, & bio energy), (2) shelter (units on ecological principles and conservation of resources and theories of natural selection), (3) a mate (units on DNA, cell structures and functions, plant and animal reproductive systems, and genetic), and (4) types of life (units on taxonomy). Scientific methodology of experimental design and the collection, display, and interpretation of data to logical conclusions is integrated throughout the units of study.

General Chemistry

Grade Level: 10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Completion of Algebra I with a grade of B or Higher (recommended to be taken concurrently with Algebra II)

Course Description: This is a college preparatory course covering the basic topics of chemistry, such as formula and equation writing, atomic structure, gas laws, reactions, problem solving, and organic chemistry. Experiments will be conducted throughout this course, and are designed for those students entering into science, engineering, premed, etc. The student will need excellent math skills that include Algebra I.

AP Environmental Science

Grade Level: 11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Biology, Chemistry

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

Human Anatomy & Physiology**Grade Level: 10,11,12****Course Length: 1 Year****Credit: 1****Prerequisite: Successful Completion of Biology**

Course Description: Anatomy and Physiology is designed for students to acquire basic knowledge of the structure and an understanding of functions of the cells, tissues, organs, and systems of the human body. Scientific methodology is incorporated in the classroom activities along with substantial anatomical names and terminology. These skills are intended to introduce students to general terms and concepts needed as young adults and future parents. These terms and concepts may also serve as an introduction to students interested in biological and health related careers. Units of study include introductory terminology, cytology, histology, and each of the systems (skeletal, muscular,

nervous, endocrine, digestive, cardiovascular, respiratory, urinary, integumentary, and reproductive).

AP Physics**Grade Level: 11,12****Course Length: 1 Year****Credit: 1**

Prerequisite: Completion of Algebra II with a grade of B or Higher (Recommended to be taken concurrently with PreCalculus or Calculus)

Course Description: AP Physics is a college preparatory course for anyone planning to continue in the study of science, math, engineering, architecture, medicine, or medical technology. Physics deals with energy and energy transfer and the forces involved in these transfers. Physics examines the rules (primarily mathematical) by which nature operates. Concepts on 1 and 2-dimensional motions are covered along with forces, momentum, energy, wave concepts (optics), electromagnetism, a bit of thermodynamics, basic d.c. circuits, and elementary relativity. The mathematics is algebra based, but some trigonometry is used. The application of calculus is included in the discussions, but calculus is not required for the problem solving.

Zoology**Grade Level: 12****Course Length: 1 Year****Credit: 1****Prerequisite: Biology I or ACCP Adv. Biology**

Course Description: The course gives an introduction to zoology, with

particular emphasis on the morphology and systematics of both vertebrates and invertebrates. In addition, the students should acquire basic knowledge in ethology, evolution, and human ecology (including an introduction to the biosphere and biodiversity). Zoology is a course that will survey the nine major phyla of the kingdom Animalia. Zoology is the study of animal life. Zoologists research everything they think to ask about animals, including their anatomy and interrelationships, their physiology and genetics, and their distributions and habitats. Human beings have been zoologists for as long as there have been human beings. As humans, we are intricately tied to animal life.

ACCP Advanced Biology

Grade Level: 12

Course Length: 1 Year

Credit: 1 (College Credit Available)

Prerequisite: Instructors Signature

Required For Enrollment and 3.00

unweighted cumulative GPA; have

taken the ACT or practice ACT

Course Fee: Based upon Missouri

Western course fee requirements

Course Description: This class

continues the study of living creatures

from the molecular to the ecological

levels. Structures, functions, and

interactions of living things are

emphasized from a continued

perspective of scientific methodology.

There is a more rigorous academic

approach than sophomore biology. The

course outline entails two basic areas:

1) units of study not covered in the first

year of biology; (i.e. plant taxonomy,

plant structures and functions,

microbiology, kingdoms protista &

fungi, natural history, and ecology); 2)

greater depth of study for essential units in biology and previously introduced in the first year of biology (i.e., chemicals of life, bioenergy and metabolism, and cell theory).

SOCIAL STUDIES

Geography

Grade Level: 9 and transfers

Course Length: 1 Year

Credit: 1

Prerequisite: None

Course Description: Geography studies Earth, its people, and examines the Earth's physical environment as one way to better understand the different cultures of the world. Much of the course revolves around locating the countries of the world and examining the people who live there. Some other areas of study include maps, climate, water formations, and landforms.

World History

Grade Level: 10

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of Geography

Course Description: This course surveys history from ancient times through the modern period from a world perspective. Students are introduced to the ancient river civilizations, the Empires of Greece and Rome, and medieval life. The course continues with the development of European monarchies and their evolution into modern nations. Finally, students will investigate causes and results of twentieth century global events/conflicts. Emphasis is placed on

emergence of new nations and the potential of today's society.

United States History

Grade Level: 11

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of World History

Course Description: This course surveys the history of the United States from colonial times through the modern period. Students will examine the economic, political, and cultural development of early America. The course continues with the events that lead America into the Civil War and our recovery and modernization after the war. The final part of this course emphasizes the emergence of the United States as a world power and the crises faced as a modern nation both at home and abroad.

AP United States History

Grade Level: 11

Course Length: 1 Year

Credit: 1

Prerequisite: Completion of World History with a Grade of B or Higher, 3.00 cumulative GPA, along with Instructor's Signature Required for Enrollment

Course Fee: Based on College Board

Course Description: This course is designed to provide students with analytical skills and factual knowledge to critically address United States history. This course is structured to prepare students for college courses, demanding in-depth writing analysis and understanding beyond the norm. Admittance to this class will be by approval only. Students can earn

college credit with a qualifying score appropriate for the college of their choice.

American Government

Grade Level: 12

Course Length: 1 Year

Credit: 1

Prerequisite: Successful Completion of United States History

Course Description: This course studies government in general and the United States' federal system in particular. A strong emphasis is placed on the three branches of government. The course also includes an examination of State and Local Government (second semester), thus meeting the state requirement for the study of the Federal and the Missouri Constitution.

AP American Government

Grade Level: 12

Course Length: 1 Year

Credit: 1

Prerequisite: Completion of United States History with a Grade of B or Higher, 3.00 cumulative GPA, along with Instructor's Signature Required for Enrollment

Course Fee: Based on College Board

Course Description: This course is designed to provide students with analytical skills and factual knowledge to critically address American Government and political process. This course is structured to prepare students for college courses, demanding in-depth writing analysis and understanding beyond the norm. Admittance to this class will be by approval only. Students can earn college credit with a qualifying score

appropriate for the college of their choice.

Psychology

Grade Level: 11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: None

Course Description: This course will survey the major areas of psychology: consciousness, the brain and behavior, theories of human growth, development and personality, learning, and psychological testing. Students will be exposed to major psychological theorists and theories, exploring how psychology relates to their own interests while examining theories of human behavior. Discussion, reading, research, and projects will be required.

Intro to Philosophy

Grade Level: 11,12

Course Length: 1 Semester

Credit: ½

Prerequisite: Teacher Approval

Course Description: Western Philosophy examines three seminal works of philosophy that have significantly influenced contemporary Western thought, including that of the Church: Plato's *The Republic*, Aristotle's *Nicomachean Ethics*, and Saint Augustine's *Confessions*. Class will be conducted in a seminar format, where each participant will have read the considered text and will be prepared to contribute with others to build understanding. Students will read, discuss and write a reflective essay on each text of the course.

Current Events

Grade Level: 11,12

Course Length: 1 Semester

Credit: 1/2

Prerequisite: None

Course Description: This course is designed to examine major news and issues of the day. The course will focus on local, national, and international events making headlines, and will utilize a variety of media to obtain different perspectives on those topics. The course is intended to teach students awareness of how news stories may directly or indirectly affect their lives, and to encourage them to become more informed young citizens as they prepare to take on the responsibilities of adulthood. This class is designed to be paired with Economics.

Economics

Grade Level: 11,12

Course Length: 1 Semester

Credit: 1/2

Prerequisite: None

Course Description: This course will give the students a greater understanding of economics ranging from the viewpoint of the individual consumer or small business owner to the global economy. The course will study the law of supply and demand, forms of business, labor unions, government finances and influence on the economy, money and prices, inflation and deflation cycles. The course relates history and politics to the study of economics. This class is designed to be paired with Current Events.

THEOLOGY

Community Service

The purposes of the service requirement are to heighten an awareness of the plight of the less fortunate, to develop in our students a sense of civic responsibility and to foster a sense of Christian stewardship. Currently, SPX students are required to perform 60 hours of service for graduation. Service hours from agencies other than those listed on the SPX website under "Faith and Service" tab will not be accepted unless the principal gives prior written approval to the student. Service is usually performed at an approved site only, outside of school time, documented by an adult, performed for a parish or organization (not a relative); no payment may be rendered or accepted by the students. All service hours must have written verification from the on-site supervisor, and service hour sheets must be turned into the office within two weeks. Students are encouraged to do 15 hours of service each school year; no more than 20 hours will be accepted from any one institution.

Introduction to Catholicism & The Sacraments

Grade Level: 9

Course Length: 1 Year

Credit 1

Course Description: This course, required for all freshman, presents an integrated survey of basic Catholic doctrinal beliefs and moral principles of Roman Catholicism. Major units include the Sacraments and the Ten Commandments. Other topics covered

include the Call to Holiness, Prayer, the Trinity, the Church, Revelation, the Blessed Virgin Mary, Scripture, and the Beatitudes.

Understanding the Scriptures

Grade Level: 10

Course Length: 1 Year

Credit: 1

Course Description: This course, required for all sophomores, is a complete course on Bible study stressing how God's covenant with humanity defines the "story line" that holds all of Scripture together, from beginning to end. The course presents how Jesus Christ is the Messiah promised, expected, and prayed for in the Old Testament, and how in the New Testament, Jesus is the Savior come to fulfill all those hopes.

Catholic Church History

Grade Level: 11

Course Length: 1 Year

Credit: 1

Course Description: This course will study the earliest roots of the followers of Christ and our shared Jewish heritage into the development of Roman Catholicism. Emphasis will be placed on the movement, expansion, heritage, mission and statement of beliefs. Its focus will center on significant models of the Church as a community of believers. The teacher will provide opportunities for prayer, reflection, praxis, and liturgical involvement.

Christian Moral Theology & Apologetics

Grade Level: 12

Course Length: 1 Year

Credit: 1

Course Description: Moral Theology: Principles of Moral Theology, Moral Conscience, Ethical Norms & Laws, Morality & Action, Sin & Conversion, Applications to the Moral Life through the Social Teaching of the Church & the Ten Commandments. Christian Apologetics: This is the last theology course for the seniors. In this course, they will learn to present a rational basis for Christian Doctrine. They will learn that the Christian faith is true, and that by honest reasoning, they can understand and explain this to others. The course will cover key elements of Christian doctrine: Faith & Reason, The Trinity, Jesus Christ – true God & true Man, and the Blessed Virgin Mary.

WORLD LANGUAGES

Spanish I

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit 1

Prerequisite: None

Course Description: Spanish I introduces the beginning components of Spanish through comprehension, speaking, reading, listening, and writing skills. Comprehensible input strategies are implemented to encourage active participation of each student in a variety of formats. Students learn essential vocabulary, basic structures of the language, and cultural aspects of Latin America and Spain. 85-90% of the course is taught in Spanish to promote proficiency.

Spanish I Honors

Grade Level: 9,10

Course Length: 1 Year

Credit: 1

Prerequisite: None

Criteria for Enrollment: Placement is determined by the Admissions Office of the sponsoring college/university, from High School Placement Examination scores, and/or from the Spanish Qualifying Examination.

Course Description: This course is for students who have had one or more Spanish courses but did not place in a second level Spanish course at St. Pius X, or for those who had high verbal scores on the HSPT. The class moves at a faster pace as the students learn to use the basic grammar structures taught in the Spanish I course. In addition, they will develop an expanded vocabulary, an increased reading proficiency, the ability to write short compositions, and further knowledge of Spanish and Latin American cultures. 85-90% of the course is taught in Spanish to promote proficiency.

Spanish II

Grade Level: 9,10,11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Spanish I, Spanish I H, or successful achievement on the Spanish Qualifying Examination.

Course Description: This course aims to improve the student's ability to speak, read, and write in Spanish. Also, the course strives to review grammar previously studied, to master new concepts in Spanish, and enhance the student's knowledge of the cultural diversity of the Spanish-speaking world. There will be considerable emphasis on the improvement of oral skills, and students will be encouraged to speak in Spanish on a variety of topics. Course

materials are designed to stimulate conversation, striving to imitate the native speaker's pronunciation accent and rhythm. 85-90% of the class will occur in Spanish.

ACCP Spanish II

Grade Level: 10,11

Course Length: 1 Year

Credit: 1 (Up to 6 college credits)

Prerequisite: Grade of A or B+ in Spanish I or Spanish I Honors, OR successful qualifying score on the Spanish Test-Out Examination.

Course Fee: \$75 online textbook fee as well as optional enrollment/credit fees based upon Missouri Western State University course requirement.

Criteria for Enrollment: Approval of Instructor, Students must meet the unweighted 3.0 GPA course criteria. \$75 online textbook fee will apply for all those in this course. Additional ACCP credit fees apply for those who enroll.

Course Description: This course is designed to challenge the student who, during his/her first year, actively participated in class and demonstrated the ability to advance more rapidly than the average student. This is an Advanced College Credit Program (ACCP) course offered through Missouri Western State University and St. Pius X High School. Equivalent to the first and second semesters of university Spanish, a total of six credit hours, this course will strengthen and develop Spanish language skills while encouraging appreciation of Spanish and Latin American cultural studies.

ACCP Spanish III

Grade Level: 10,11,12

Course Length: 1 Year

Credit: 1 (3 College Credits)

Prerequisite: Spanish 2 ACCP

Criteria for Enrollment: A grade of C or higher in SPA 101 (offered in Spanish 2 ACCP). Students must meet the 3.0 unweighted GPA criteria; Approval of Instructor; \$75 online textbook fee as well as optional ACCP enrollment/credit fees.

Course Description: This course is a continuation of the study of Spanish for those interested in learning the language. This is an Advanced College Credit Program (ACCP) course offered through Missouri Western State University and St. Pius X High School. This is a year-long course and the continuation of the MWSU college credit as the third semester of University Spanish, a total of three credit hours. This course challenges the students with advanced grammar and varied opportunities to strengthen their control of the language. Through classroom interaction, students develop oral and written skills needed for practical and daily-life situations; study linguistic structures and functions needed to ask questions, compare, contrast, and describe; develop reading skills and expand vocabulary; and increase cultural awareness of the Spanish-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses.

ACCP Spanish IV

Grade Level: 11,12

Course Length: 1 Year

Credit: 1

Prerequisite: Completion of Spanish III with a Grade of B or Higher or Teacher Recommendation

Course Fee: \$75 textbook fee as well as

optional enrollment/credit fees based upon Missouri Western State University course requirement.

Course Description: The first semester is a continuation of the MWSU college credit as the third semester of University Spanish. The second semester is a blend of culture, reading, writing, and grammar. The class is conducted entirely in Spanish, and English is only allowed when a specific concept requires it. Students learn about culture in the Hispanic world through the study of history, literature, art, mixed media, religion, and cultural celebrations from Spanish speaking countries. Students continue their vocabulary expansion based on the text themes.