

St. Pius X High School 2023-2024 Program of Studies

VISION STATEMENT

We, the Catholic community of St. Pius X High School, strive to maintain recognized excellence in all educational programs for students of all abilities. We strive to impart Christian principles to students preparing them to be productive and contributing members of a global society. We, as members of the St. Pius X High School community, seek to challenge each other to become life-long learners in mind, body, and spirit.

MISSION STATEMENT

St. Pius X High School is a Catholic community dedicated to the education of the whole person in an environment where extraordinary care and concern for the individual is ordinary.

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EDUCATIONAL POLICIES

In planning for the upcoming school year, all students should keep in mind that a minimum of 28 credits is necessary to graduate from St. Pius X. Courses with fewer than 10 students will be canceled.

GRADUATION REQUIREMENTS

General Education/College Prep

Course	Required Unit
Theology (Theology I, II, III, IV)	4
English/Language Arts (Eng I, II, III, IV)	4
Mathematics (4 are recommended for college prep)	3
Social Studies (Am Hist and passing grades on US and Missouri Constitution tests required)	3½
Science (4 are recommended for college prep)	3
Fine Arts	1
Practical Arts (Personal Finance required)	1
Wellness (Wellness, Fitness, and Cross Training)	2½
World Language (Two units of same language are recommended by many colleges, required by some)	2
Elective Credits	4-8
Community Service	104 hrs
Total Graduation Credits	28-32

All students must register for no fewer than 8 credits which must be distributed evenly in both semesters. Juniors and Seniors may apply for a study hall. Students are encouraged to plan their course of studies with counselors and teachers with three major ideas in mind: the fulfillment of

basic course requirements, future career or profession, and academic strengths and preferences.

COLLEGE CREDIT PROGRAM

College credit programs offered at St. Pius X are sponsored by Saint Louis University (SLU-ACC) and the University of Missouri -St. Louis (UM-St. Louis-ACP). In this program a junior or senior maintaining a 3.0 cumulative grade point average may enroll in college level courses and simultaneously register at SLU and/or UM-St. Louis. The student receives a report card from SLU or UM-St. Louis upon successful completion of the courses. After high school graduation, an official transcript from SLU and/or UM-St. Louis is sent to the college or university the student plans to attend. The credits are honored with limited exceptions because they are sent, at a student's request, as transfer credits from one university to another.

At present St. Pius X offers college course electives in English, Math, Social Studies, and Spanish. Students participating in the program should have the ability, motivation and maturity to begin their college education in advance of high school graduation.

PREREQUISITES for the college courses are listed in the curriculum guide.

STUDENT CLASSIFICATION:

In order to acquire the necessary 28 credits to graduate, the following student classification system is in effect:

TO BE A FRESHMAN, a student must have passed the 8th grade or must have successfully made up failures in summer school.

TO BE A SOPHOMORE, a student must have passed all required Grade 9 courses and have merited at least 7.000 credits and have completed the [required service hours](#).

TO BE A JUNIOR, a student must have passed all required Grade 10 courses and have merited at least 14.000 credits and have completed the [required service hours](#)

TO BE A SENIOR, a student must have passed all required Grade 11 courses and have merited at least 21.000 credits and have completed the [required service hours](#).

TO BE A GRADUATE, a student must have passed all required Grade 12 courses and have merited at least 28.000 credits and have a minimum of 104 service hours.

Seniors who do not pass all required Grade 12 courses, who do not have at least 28 credits, and have not completed 104 service hours may not be allowed to participate in the graduation ceremony.

Students lacking overall credits to move on to the next grade level must make-up the necessary credits either at summer school or a correspondence course approved by the principal.

COURSE PLACEMENT

Students at St. Pius are placed in courses according to results of standardized tests, department approval, and with parental approval. No change to a lower or higher ability level in a given course will be made without consulting both student and parents and without permission of the principal. If it becomes necessary to remove a student from a course for reasons other than ability level, the principal will be the final judge in this matter.

ABILITY LEVELING

HONORS LEVEL COURSES are designed to challenge students who typically earn very high grades and score above the 85th percentile on standardized tests. A proficient or advanced Lexile reading level is also required.

COLLEGE CREDIT COURSES, in conjunction with St. Louis University and University of Missouri-

St. Louis, merit actual college credits and are offered to students who have proven exceptional ability and effort in specific fields and who meet requirement criteria.

DEPARTMENT RECOMMENDATION and/or APPLICATION are required for some courses, including all honors courses, before the student is allowed to register.

Policies for Change of Schedule

Changes may be initiated for the following reasons:

- 1) Scheduling error
- 2) Inappropriate course level
- 3) Graduation requirements
- 4) Health considerations
- 5) Teacher recommendation

The following procedure will be followed in considering schedule changes:

- Meet with the registrar
- Written permission from parents, faculty member from whose class the student is withdrawing and/or enrolling, and Principal
- Payment of \$25.00 fee for course registration change—this applies to all changes requiring clerical adjustments
- If a student wishes to drop a course and add a different one, the request must be made on or before the completion of the first cycle of classes. Change requests after that time must be initiated by the teacher.
- No request will be honored which involves a change from one section of a course to another section

GRADE EQUIVALENTS

A	92.5-100%
B	84.5-92.49%
C	76.5-84.49%
D	69.5-76.49%
F	0-69.49%

SEMESTER COURSE FAILURES in a required course, must be made up before the next school year begins. An elective course can be made up at St. Pius, if available, or at a principal-approved institution. All make-up courses are paid by the student. Make-up courses do not count toward GPA.

CREDIT is the value placed on a course. Subjects which meet four days per cycle merit one full credit per year. Subjects meeting four days per cycle for one semester or two days per cycle for a year yield one-half credit.

Courses available at St. Pius may not be taken elsewhere except in the case of a failed course.

GPA (GRADE POINT AVERAGE)

Grade points are calculated by the computer each semester. Grade points are not awarded in pass/fail courses, summer school courses (other than St. Pius courses), independent courses, summer enrichment programs, or credit recovery courses.

BUSINESS AND TECHNOLOGY DEPARTMENT

The Business and Technology Department of St. Pius X High School provides an extensive and comprehensive program that provides relevant, authentic, and real-life learning experiences. The department is committed to preparing students for a rapidly changing world by expanding each student's knowledge, experience, and skills in business and computer technology. We believe the knowledge, skills, and ethics taught are essential for dynamic, life-long participation in a global and informational society—promoting success in one's personal life, college study, and career choice. Our goal is to restructure the course offerings to include information and skills that are relevant and authentic and applicable to experiences our students will face now and in the post-secondary world.

Business and Technology Courses	Course Length	Freshman	Sophomore	Junior	Senior
College and Careers	Either Sem		X		
Personal Finance	Either Sem			X	X
Personal Finance:CC	Either Sem			X	X
Digital Media	Sem 1			X	X
Coding	Either Sem			X	X
Accounting IA	Sem 1			X	X
Accounting IB	Sem 2			X	X
Marketing	Sem 2			X	X
Yearbook	Year			X	X
Yearbook:Hon	Year				X
Video Production	Year			X	X
Robotics	Sem 2			X	X

BUS01 COLLEGE AND CAREERS

GRADE 10 required
 ½ CR SEM
 PREREQUISITE: none

College and Careers addresses the decision-making process of the successful life path from high school to career, including career exploration, college or educational exploration, paying for college, and the development of employment skills. The goal of this course is to look at the next 40-50 years of their lives and gain a perspective of the big picture of life. Students will consider their high school years in connection with post-secondary education along with a 40+ year working career until retirement.

BUS02 PERSONAL FINANCE

GRADE 11-12 required ½ CR SEM
 PREREQUISITE: none

Students will learn how to handle economics in everyday life. Topics to be covered include career choices, types of bank accounts, handling credit including loans and credit cards, planning for retirement, paying for college, and investments. These are necessary life skills that all consumers should know.

BUS08 YEARBOOK

GRADE 11-12 1 CR YR

PREREQUISITE: Teacher recommendation

The members of this class will design all elements of the yearbook, including cover design or selection, page layouts, copywriting, and photography. There will be extensive use of technology for publication, including digital cameras and photo editing software and yearbook production software. In addition, students will create a Senior slideshow.

PRA09 YEARBOOK:HON

GRADE 12 1 CR YR

PREREQUISITE: Teacher recommendation

In addition to designing all elements of the yearbook, including cover design or selection, page layouts, copywriting, and photography, the members of this class will plan and schedule all deadlines for yearbook production. They will train and mentor Junior members of the class and prepare formal lessons and activities to promote development of skills. Additionally, seniors will manage the yearbook budget by ensuring that production schedules are met and sales are completed.

BUS 10 VIDEO PRODUCTION

GRADE 11-12 1 CR YR

PREREQUISITES: Teacher recommendation

This one-year course is designed for the study of the basic elements of video production with a focus on planning, writing and producing well-balanced, comprehensive and visually compelling videos to help promote and advance the mission of St. Pius X High School. The course will emphasize news-gathering, writing, video recording, editing, and the study of mass media

while meeting the same deadlines professionals handle in small, medium and large markets. Students will be introduced to skills such as script writing, directing, and proper camera usage and technique. They will also learn studio skills such as lighting, sound, and editing. These skills will allow the student to produce his/her own feature package as they encounter both long and short-term deadlines and out-of-class responsibilities. Students will also run livestreams of various school events throughout the year. This will result in some requirements for evening and weekend availability at various points during the school year.

BUS11 ROBOTICS

GRADE 11-12 ½ CR SEM

PREREQUISITE: Teacher recommendation

This course will involve basic electronics technology and will teach students how to design, create, diagnose and repair robotic functions using the Engineering Process. Through classroom lectures, videos, and hands-on experience, students will work with basic robotic components (Lego Mindstorm) to diagnose, engineer and solve “real world” issues & problems. They may also work with C++ and Object-Oriented programming languages.

BUS12 PERSONAL FINANCE:CC

GRADE 11-12 required ½ CR SEM

PREREQUISITE: Teacher recommendation. 3 hours of college credit available requires minimum GPA of 3.0 on a 4.0 scale.

Students will learn about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning, and health and life insurance. This course moves at a faster pace and is more in depth.

ENG08 COMPOSITION AND LITERARY TYPES:HON/CC

GRADE 12 required 1 CR YR
PREREQUISITE: ENG06, an A average in all previous Eng classes, A Lexile score of at least 1200, and teacher recommendation. 6 hours of college credit available requires minimum GPA of 3.0 on a 4.0 scale.

Students in this course will meet the requirements of the Advanced College Credit Program at the University of Missouri-St. Louis. Students can receive credit for UMSL's "Introduction to Literature" course and "First-Year Writing" course. This course is taught in a seminar style with emphasis on student-generated topics and questions for discussion – not a simple lecture. Students are expected to be notable or significant contributors to class discussions. The core of this course is a survey of British Literature with emphasis on interpreting and responding to literature in all major genres (short story, poetry, drama, and novels). Rhetorical strategies are employed to develop complex essays in various genres including literary analysis, literary criticism, and opposing viewpoints papers. Major authors/texts in this course: *Sir Gawain and the Green Knight*, Shakespeare's "Macbeth", Bram Stoker's *Dracula*, Agatha Christie, Arthur Conan Doyle, and various contemporary novels such as *Atonement* and *Curious Incident of the Dog in the Night-time*. A serious attitude exemplified through behavior and higher order thinking skills reflected in writing, speaking and reading comprehension is required.

ENG09 FILM APPRECIATION

GRADE 12 elective ½ CR SEM
PREREQUISITE: none

Film is a popular, informative and fun class. The students watch a variety of films usually by

genre (action, horror, biography, romantic comedy, teen coming of age, western, documentary, etc.), learning about the history of each as we go. Students also are exposed to the elements of filmmaking such as editing, direction, acting, set design, music, etc. They also read a variety of film reviews. The students write essays, do study guides and conduct personal interviews

ENG10 CREATIVE WRITING

GRADE 11-12 elective ½ CR SEM
PREREQUISITE: none

The course focuses on the aspects of creative writing. Students will analyze diverse themes and become more familiar with the different genres of the craft including: fiction, nonfiction, narratives, poetry, and plays. Creativity and originality will be the main focus of this course and will be expressed through the form of writing. The students will also learn and form their own strategies of how to avoid "writer's block" and how this greatly affects the writing process. Writing, reading, peer reviewing, and revising are main elements that will contribute to this course and the success of the student. Skills will be assessed by writing activities and a portfolio that will be created at the end of the course. This portfolio will include writing samples from the student over the course of the semester.

FINE ARTS DEPARTMENT

The St. Pius X High School Fine Arts Department would like the St. Pius graduates to have an “aesthetic awareness, cultural exposure, creativity, improved emotional expression, as well as social harmony and appreciation of diversity”

Fine Arts Courses	Course Length	Freshman	Sophomore	Junior	Senior
Elements of Art	Sem 1	X	X	X	
Principles of Design	Sem 2	X	X	X	
Creative Strategies	Sem 1		X	X	X
Ceramics	Sem 2		X	X	X
Sculpture:Hon	Sem 1			X	X
Art and Theology:Hon	Sem 2			X	X
Proposal:Hon	Sem 1				X
Exhibition:Hon	Sem 2				X
Chorus	Yr or sem	X	X	X	X
Concert Choir:Hon	Year		X	X	X
Beginning Band	Year	X	X	X	
Concert Band	Year	X			
Concert Band:Hon	Year		X	X	X
Rock Band:Hon	Year		X	X	X
Music Tech	Either Sem			X	X

FAS01 FOUNDATIONS: ELEMENTS OF ART

GRADE 9-11 elective ½ CR SEM
 PREREQUISITE: none

This course will provide a foundation for understanding visual art in terms of its basic elements. Knowing the elements of art, line, shape, color, form, value, texture, and space are the first step in being able to observe, analyze and have meaningful discourse about visual art. Students will demonstrate their understanding of these concepts by making artwork in a variety of 2D materials and creating a series of drawings. Students are encouraged to take a full year of art if they plan to take additional art classes over the next 3 years.

FAS02 FOUNDATIONS: PRINCIPLES OF DESIGN

GRADE 9- 11 elective ½ CR SEM
 PREREQUISITE: FAS01

Building upon the elements of art, students will learn how artists employ the principles of design. The principles of design, balance, contrast, emphasis, movement, pattern, rhythm, unity/variety, help artists to further communicate their ideas and concepts visually. Students will demonstrate their understanding of these concepts by making artwork in a variety of both 2D and 3D materials.

FAS03 FOUNDATIONS: CREATIVE STRATEGIES

GRADE 10- 12 elective ½ CR SEM
PREREQUISITE: FAS02

In this course students will focus on creative problem solving skills, personal expression, developing aesthetic awareness, and an interdisciplinary approach to the artistic process. Material exploration will include, drawing, painting, multimedia, and textiles. It is recommended that students have taken elements of art and principles of design before taking this course. Students will have the possibility to earn honors credit in this course if they meet the appropriate expectations on all projects.

FAS04 FOUNDATIONS: CERAMICS

GRADE 10- 12 elective ½ CR SEM
PREREQUISITE: At least a “B” in FAS02 and recommendation

In this course students will learn the basics of making with clay and an overview of its application throughout culture, art history, and contemporary practices. First, we will learn to build functional pieces using pinch, coil, slab, and throwing techniques. Then we will progress to creating sculptural forms. Students will have the possibility to earn honors credit in this course if they meet the appropriate expectations on all projects.

FAS07 ART AND THEOLOGY:HON

GRADE 11- 12 elective ½ CR SEM
PREREQUISITE: FAS05 and recommendation

Through a series of multimedia projects students will come to know the connections between the church and art. We will study the historical periods of byzantine, Romanesque, gothic, and renaissance architecture. As well, the monumental invention of the modern cathedral, which directly fuses theology into the artistic form of its layout and rose windows. Finally, we will discover the vocation of beauty and unique role of artists in salvation.

FAS08 SCULPTURE:HON

GRADE 11- 12 elective ½ CR SEM
PREREQUISITE: FAS06 and recommendation

Working with a variety of materials, traditional and non-traditional, students will create both additive and subtractive sculptures. These projects will challenge students to think about the elements and principles of design in a new way, as opposed to 2D artwork. We will look at both historical and contemporary sculpture artists.

FAS09 PROPOSAL:HON

GRADE 12 elective ½ CR SEM
PREREQUISITE: FAS08 and recommendation

The student will be asked to write a proposal for a body of work, containing 3 individual projects. The projects are to be chosen from, but not exclusive to, a culmination of methods and media experienced in the prior 3 years. The proposal includes an introduction of subject matter, task, process, and content/meaning behind the work. The Project must challenge the student’s audience to look at life in a new and innovative way. To document students will photograph and upload images of their work to their personal online artist portfolio websites.

Essential Elements Band Course. The Band performs in concert at the end of each semester. Students advance to Concert Band Honors the following year. Attendance at public performances is required.

FAS15 CONCERT BAND

GRADE 9 elective 1 CR YR
PREREQUISITE: students who demonstrate enough ability as judged by the instructor

The Concert Band performs contemporary concert music. Instruments included in the band are violin, viola, cello, bass, flute, oboe, Bb clarinet, bass clarinet, bassoon, alto saxophone, tenor saxophone, baritone saxophone, French horn, trumpet, trombone, baritone horn, euphonium, tuba, string bass and percussion. All scales are taught through the Foundations for Superior Performance Book. Concert Band performs frequently during the school year at various school functions such as Football Games, Festus Christmas Parade, Concerts, Competitions, and Graduation. This class requires regular practice and presence at all public performances.

FAS 16 CONCERT BAND:HON

GRADE 10-12 elective 1 CR YR
PREREQUISITE: students who demonstrate enough ability as judged by the instructor

The Concert Band performs contemporary concert music. Instruments included in the band are violin, viola, cello, bass, flute, oboe, Bb clarinet, bass clarinet, bassoon, alto saxophone, tenor saxophone, baritone saxophone, French horn, trumpet, trombone, baritone horn, euphonium, tuba, string bass and percussion. All scales are taught through the Foundations for Superior Performance Book. Concert Band performs frequently during the school year at

various school functions such as Football Games, Festus Christmas Parade, Concerts, Competitions, and Graduation. This class requires regular practice and presence at all public performances.

FAS17 ROCK BAND:HON

GRADE 11-12 elective 1 CR YR
PREREQUISITE: any prior experience on instrument

Students in this class will explore how to play as an ensemble in a rock band, and what makes a song a rock song verses another genre, while also advancing their own personal knowledge on their instruments. Instruments include, but are not limited to, piano, drumset, bass, acoustic or electric guitar, ukelele, and any wind instruments. Students perform at events throughout the year, including a fall and spring concert, basketball games, and the Spring Cabaret. Performances are required for the class.

FAS18 MUSIC TECHNOLOGY

GRADE 11-12 elective ½ CR SEM
PREREQUISITE: none

Students will learn how to compose a melody, drum beat, and other components of music to create their own original song. Students will learn how to use loops, compose their own music, and to arrange current songs into a new style of music. Students will also explore creating their own music in their favorite genres from their favorite modern composers. Students will use a music software program on their computers to compose their own pieces. No prior musical or technological experience is needed to take this class.

writing intensive than Algebra I, and students are given a more rigorous workload with a faster pace that includes more in-class projects and complex problem-solving tasks. It is recommended that students have either a TI83 or TI84 calculator

MTH03 GEOMETRY

GRADE 10 required 1 CR YR
PREREQUISITE: MTH 01 or equivalent

This course is designed so that all students can understand geometry. It focuses on key topics that provide a strong foundation in the essentials. Concepts are presented in a straightforward manner, supported by frequent worked-out examples. Questions within the lessons give students a way to check their understanding as they go along. Many opportunities are given to practice and maintain skills, as well as to apply concepts to real-world problems.

MTH04 GEOMETRY:HON

GRADE 9-10 required 1 CR YR
PREREQUISITE: Soph MTH02 and teacher recommendation, Freshman Alg I with a grade of A or B and minimum 80th percentile or Proficient on a standardized test

This course brings geometry to life with many real-life applications such as those applied to sports, engineering, carpentry, etc. It teaches the concepts and methods that students need to know in order to meet high curriculum standards and succeed on high-stakes tests.

MTH05 ALGEBRA II

GRADE 10-11 required 1 CR YR
PREREQUISITE: MTH03 or MTH04

This course includes solving and graphing linear, quadratic, and polynomial equations. Real life applications are contained in each lesson. Investigations include finding the linear relationship of the distance a toy car will go when rolled down ramps of varying heights and how the apparent size of an object varies directly with the distance one is away from it. Also studied are functions, systems of equations, radicals and exponents.
A TI 83 or TI 84 graphing calculator is required.

MTH06 ALGEBRA II:HON

GRADE 10-11 required 1 CR YR
PREREQUISITE: MTH03 or MTH04 and teacher recommendation

Included in this course is solving and graphing linear, quadratic, and polynomial equations. Real life applications are included with each lesson. Investigations include mathematical modeling. Also studied are functions, systems of equations, rational, equations, radicals and exponents. Complex extensions of most topics are included.
A TI 83 or TI 84 graphing calculator is required.

MTH07 ADV MATH/TRIG

GRADE 11-12 elective 1 CR YR
PREREQUISITE: MTH06 or 80% average in MTH05

This course provides a solid foundation for success in college mathematics. It builds on what was learned in Algebra. Students will learn about functions and their graphs as well as exponential and logarithmic functions. The second semester will focus on trigonometry,

both circular and triangular. Students will graph trigonometric functions and solve equations and identities. Applications include finding heights of tall objects, distance, bearings and the effect of a force on an object.

MTH08 PRECALCULUS:HON/CC

GRADE 11-12 elective 1 CR YR
PREREQUISITE: “B” average in MTH06 and recommendation

Calculus is easy. The algebra in calculus is what makes it hard! Students are prepared for calculus by reviewing and furthering the concepts they learned in their algebra classes. Included is solving and graphing cubic, quadratic, exponential and logarithmic functions. The second semester focuses on trigonometry, both circular and triangular. Students will graph the six trigonometric functions and solve equations and identities. Applications include finding the height of objects, distance, bearings and the effect of a force on an object. A TI-83 or TI-84 graphing calculator is required.

MTH09 CALCULUS:HON/CC

GRADE 12 elective 1 CR YR
PREREQUISITE: “B” average in MTH08, 3.0 GPA on a 4.0 scale, and recommendation.

What in the universe changes?
Answer: Everything! Calculus allows us to measure that change in a well-organized, well defined manner called differentiation. The opposite of differentiation is integration which is the second major topic of this course. Integration has many real-world applications as well, including calculating volume, work, centers of mass, fluid force, etc. Finally, high achieving math students are rewarded for their years of hard work by

receiving an answer to that age old question—when am I ever going to use this? Four college credits are possible during second semester. A TI-83 or TI-84 graphing calculator is required.

MTH10 PROBABILITY & STATISTICS

GRADE 12 elective ½ CR SEM
PREREQUISITE MTH05 or MTH06

This class takes a basic approach to the study of Statistics and Probability. Students in this class will learn to collect and organize data by hand and with the assistance of technological equipment. They will calculate measures of central tendency and measures of variation. They will explore data analysis. The study of Probability follows where students will learn various counting techniques, how to calculate simple, compound, and binomial probabilities, how to use probability distribution graphs. This class requires the use of a graphing utility along with other forms of technology.

MTH11 DISCRETE MATHEMATICS

GRADE 12 elective ½ CR SEM
PREREQUISITE MTH05 or MTH06

Discrete mathematics applies math to the real world. In discrete math we create models for things that happen in the world around us, like group decision making. Topics include fairness, matrices, graph theory, recursive modeling, and logic. Discrete mathematics provides excellent models and tools for analyzing real-world phenomena that change abruptly and that lie clearly in one state or another. This is a good course for students who would like to broaden their background in the STEM field before going off to college.

PRACTICAL ARTS DEPARTMENT

Practical Arts Course	Course Length	Freshman	Sophomore	Junior	Senior
Engineering Technology	Year			X	X

PRA01 ENGINEERING TECHNOLOGY

GRADE 11-12 Elective 1 CR YR

PREREQUISITE: none

Engineering Technology is an activity-based course providing orientation and exposure to the practical application of science skills in the

engineering field. Students will be actively involved with processes of various engineering fields, devices, and materials (use of drones, 3-D printing), engineering graphics, science principles, and safety. The course includes classroom instruction, lab activities, guest speakers, and field trips.

SCIENCE DEPARTMENT

The St. Pius X High School Science Department in alignment with the National Science Content Standards would like the St. Pius graduates to realize “the important thing in science is not so much to obtain new facts as to discover new ways of thinking about them” (William Lawrence Bragg).

Science Courses	Course Length	Freshman	Sophomore	Junior	Senior
Physical Science	Year	X			
Physical Science:Hon	Year	X			
Biology	Year		X		
Biology:Hon	Year		X		
Chemistry	Year			X	
Chemistry:Hon	Year			X	
Anatomy/Physiology:Hon	Year			X	X
Physics:Hon	Year				X
Engineer and Design	Sem 2			X	X
Animal Behavior	Sem 1			X	X
Forensic Science	Sem 2			X	X
Astronomy	Sem 1			X	X

SCIO1 PHYSICAL SCIENCE

GRADE 9 required 1 CR YR
 PREREQUISITE: none

To organize the understanding and investigation of the world, science has been divided into separate fields of study such as Physics, Chemistry, Ecology, and Earth Science. All these fields are related and information from one field often leads to developing new ideas in a different field. This course integrates these fields of science using an investigative approach with real life situations to come to an understanding of the basics of science.

To organize the understanding and investigation of the world, science has been divided into separate

fields of study such as Physics, Chemistry, Ecology, and Earth Science. All these fields are related and information from one field often leads to developing new ideas in a different field. This course integrates these fields of science using an investigative approach with real life situations to come to an understanding of the basics of science. In depth inquiry will lead to more advanced knowledge of these four topics.

SCIO2 PHYSICAL SCIENCE:HON

GRADE 9 required 1 CR YR
 PREREQUISITE: minimum 85th percentile in Science and Reading on standardized test

GRADE 10 required 1 CR YR
 PREREQUISITE: SCIO1 or SCIO2

Biology students are introduced to the study of living things. It will serve as a foundation for

future science study and as a basis for the understanding of biological topics that the student will encounter in his or her everyday life, ranging from genetic advances to personal health. Organisms studied will range from viruses and unicellular bacteria to multicellular animals and humans. Laboratory work will include use of microscopes, model building, dissections and observations of living organisms.

SCI04 BIOLOGY:HON

GRADE 10 required 1 CR YR
PREREQUISITE: "A" IN SCI01 or SCI02 and teacher recommendation

Biology students are introduced to the study of living things. It will serve as a foundation for future science study and as a basis for the understanding of biological concepts that the student will encounter in his or her everyday life, ranging from genetic advances to personal health. To make sure that the student has a basic knowledge of how the world and its living systems interact, topics will include cells, photosynthesis and respiration, genetics, DNA, evolution, ecology, and a survey of the kingdoms. Special attention will be paid to advanced topics such as biochemistry, human genetics and DNA technology. Laboratory work will include use of microscopes, model building, advanced dissections and observations of living things. Problem solving and critical thinking in the scientific setting will be stressed.

SCI05 CHEMISTRY

GRADE 11 required 1 CR YR
PREREQUISITE: MTH01 and SCI03 or SCI04

This course is an exploration into the study of matter and many of its components. Lab work is emphasized in this course while being supplemented by a number of discussions

surrounding the coursework. This course is for a typical student; concepts are presented in an understandable yet challenging manner while still preparing students for a future chemistry course at the college level. Topics will be solidified by frequent demonstrations, while students challenge themselves through numerous hands-on laboratory exercises.

SCI06 CHEMISTRY:HON

GRADE 11 1 CR YR
PREREQUISITE: MTH01 or MTH02, "B" in SCI03 or SCI04, and teacher recommendation

This course is an in-depth and intensive investigation into the study of matter and its many components. The Honors students in this course will be challenged by a wide variety of topics throughout the year. This course is ideal for those students wishing to pursue a degree in science or a medical field, and is also ideal for those students wishing to enroll in a physics class in the future. The concepts in this course form a broad base for any future chemistry class, while the lab work prepares the students for a rigorous college level science course.

SCI07 HUMAN ANATOMY/ PHYSIOLOGY:HON

GRADE 11-12 1 CR YR
PREREQUISITE: "B" IN SCI04, SCI06 and teacher recommendation

This course examines the structure and function of the human body. It will serve as an introduction to advanced biological topics and prepare any student for college study of biology or health and medicine. It is a fast-paced course that requires memorization of many anatomical and medical terms as well as a deep understanding of the concepts related to normal and pathological functioning of the body. Students will learn anatomy by examining and

dissecting animal organs such as the brain, kidney, and heart. A full dissection of a cat that will include all body systems and organs will be required. Students will further their knowledge with laboratory work that will focus on the physiology or functions of the various body systems, including muscular function, reflexes, sense perception, circulatory fitness, and urine filtration.

SCI08 PHYSICS:HON

GRADE 12 1 CR YR
PREREQUISITE: "B" IN SCI04, SCI06, "B" IN MTH05 or MTH06, and teacher recommendation

Students taking Physics will enter the fascinating world of the mathematical laws that govern the universe. The laws will be applied to solving problems involving motion, shooting projectiles, amusement park rides, collisions, sound, optics, light and electrical circuits. Students will perform experiments on each topic, collecting and organizing data in order to analyze information. This course is not an AP course. However, students will be able to take the AP exam at the end of the course. A score of 3, 4, or 5 on the exam will provide the student with possible college credits for this class.

SCI09 ENGINEERING AND DESIGN

GRADE 12 ½ CR SEM
PREREQUISITE: MTH01, SCI05 or equivalent

This Engineering and Design course serves to introduce students to the fields of mechanical, electrical, and computer engineering as well as the design process and professional communication and collaboration methods. Students will develop skills in research and analysis, teamwork, engineering graphics and problem solving through activity, project and problem-based learning. Topics to be explored

throughout the course include: design process, sketching, construction, modeling, reverse engineering, and engineering ethics.

SCI10 ANIMAL BEHAVIOR

GRADE 11-12 ½ CR SEM
PREREQUISITE: SCI05 or equivalent

This course relates evolution to the adaptation of animals to the environment. It shows how the characteristics of organisms and environmental factors influence animal behaviors such as sexual selection, bird migration, honeybee dancing, dolphin communication sounds, bat echolocation, and predator/prey relationships. Lab work includes field observational projects about chosen topics in animal behavior along with training of rats using operant conditioning through the use of positive reinforcement. Students will be required to train with the rats on a day to day basis, this means that students will need to come in during lunch to train on the day the class does not meet.

SCI11 FORENSIC SCIENCE

GRADE 11-12 ½ CR SEM
PREREQUISITE: SCI05 or equivalent

This half-year elective course provides an introduction to the topics of criminology within the field of forensic science. Study includes the applications of concepts from the areas of biology, chemistry, physics and geology to analyze and investigate evidence that may be discovered in a criminal investigation. Classroom activities include experiments, blood spatter analysis, case studies and the incorporation of technology.

SCI12 ASTRONOMY

GRADE 11-12

½ CR SEM

PREREQUISITE: SCI05 or equivalent

This course will provide the student with an introduction to the concepts of modern astronomy and a fundamental study of the universe. The course will focus on the three main fields of stellar, planetary, and interstellar astronomy. Topics to be studied within these

fields include the Earth, Moon and Sun system, stars, planets, moons, the Milky Way and other galaxies, and deep space phenomena such as black holes, quasars, and supernovae. Although largely descriptive, the course will occasionally require the use of sophomore level mathematics.

SOCIAL STUDIES DEPARTMENT

The St. Pius X High School Social Sciences Department in alignment with the National Council of Social Studies Content Standards would expect students to "help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world."

Social Studies Courses	Course Length	Freshman	Sophomore	Junior	Senior
Research Methods	Sem 1	X			
Research Methods:Hon	Sem 1	X			
World History 450-1500	Sem 2	X			
World History 450-1500:Hon	Sem 2	X			
World History 1500-1914	Sem 1		X		
World History 1914-Present	Sem 2		X		
World History 1500-1914:Hon	Sem 1		X		
World History 1914-Present:Hon	Sem 2		X		
American History to 1865	Sem 1			X	
American History 1865-Present	Sem 2			X	
US History to 1865:Hon/CC	Sem 1			X	
US History 1865-Present:Hon/CC	Sem 2			X	
American Politics:Hon/CC	Sem 1				X
American Foreign Policy:Hon/CC	Sem 2				X
Current Issues	Sem 1			X	X
Psychology	Either Sem			X	X
Civics	Either Sem				X

SST01 RESEARCH METHODS

GRADE 09 required ½ CR SEM
 PREREQUISITE: none

This course provides an introduction for first semester freshmen to the skills necessary for success in the humanities throughout high school and beyond. Students will learn the basics of information synthesis, differentiating between reliable and questionable sources, and the MLA style of information citation. In addition, students will become skilled in gathering information from primary and secondary sources, reading those sources for content and

vocabulary, and integrating those sources into the research process. These lessons will culminate in a final research project,

utilizing Google Docs and Google Slides to write a 2-3 page research paper in proper MLA format.

SST02 RESEARCH METHODS:HON

GRADE 09 required ½ CR SEM
 PREREQUISITE: minimum 85th percentile in Reading on standardized tests

This course provides an introduction for first semester freshmen to the skills necessary for

success in the humanities throughout high school and beyond. Students will learn the basics of information synthesis, differentiating between reliable and questionable sources, and the MLA style of information citation. In addition, students will become skilled in gathering information from primary and secondary sources, reading those sources for content and vocabulary, and integrating those sources into the research process. These lessons will culminate in a final research project, utilizing Google Docs and Google Keep to write a research paper in proper MLA format. Honors students will also interpret primary sources for intent of the author, submit writing samples often, and analyze primary sources for context and audience. Honors students will complete a longer (3-4 page) research project at the end of the semester.

SST03 WORLD HISTORY 450-1500

GRADE 09 required ½ CR SEM
PREREQUISITE: none

This course is the chronological first of three World History courses and begins with the fall of the Roman Empire and culminates with the age of Columbus, when, for the first time, people in the Western and Eastern Hemispheres came into contact with one another in a pronounced and continuous manner. Students will discover special people, events and inventions that have helped to shape and change their world. Students will be able to participate in role-playing activities throughout the semester to bring history to life and make it more relevant to our lives.

SST04 WORLD HISTORY 450-1500:HON

GRADE 09 required ½ CR SEM
PREREQUISITE: minimum 85th percentile in Reading on standardized tests

This course is the chronological first of three World History courses and begins with the fall of the Roman Empire and culminates with the age of Columbus, when, for the first time, people in the Western and Eastern Hemispheres came into contact with one another in a pronounced and continuous manner. Students will discover special people, events and inventions that have helped to shape and change their world. Students will be able to participate in role-playing activities throughout the semester to bring history to life and make it more relevant to their lives. Honors students will take a more in-depth approach to the topics covered with Socratic seminars and additional papers and projects required. In addition, students will engage in historical source readings, analysis and discussion.

SST05 WORLD HISTORY 1500-1914

GRADE 10 required ½ CR SEM
PREREQUISITE: SST03 or equivalent

This course is a continuation of World History starting at 1500 A.D. and progressing to 1914, with special emphasis on the emergence of modern nations, the Enlightenment, Scientific, Commercial, and French Revolutions, the Congress of Vienna, and the Industrial Revolution. Students will also understand the political and social paradigm defined as “modernism” and its contribution to the development of the conditions which led to the First World War.

SST06 WORLD HISTORY 1914-PRESENT

GRADE 10 required ½ CR SEM
PREREQUISITE: SST05 or equivalent

This course is a continuation of World History starting at 1914 and progressing to the end of

the Cold War with special emphasis on World War I, the Interwar Years, World War II, and the Cold War. Students will analyze the causes and effects and evaluate the role major players had in these global events. Students will be able to participate in role-playing activities throughout the semester to bring history to life and make it more relevant to our lives.

SST07 WORLD HISTORY 1500-1914:HON

GRADE 10 required ½ CR SEM
PREREQUISITE: SST04 or equivalent and teacher recommendation

This course is a continuation of World History starting at 1500 A.D. and progressing to the 1800s with special emphasis on the emergence of modern nations, the Enlightenment, Scientific, Commercial, and French Revolutions, the Congress of Vienna, and the Industrial Revolution. Students will also understand the political and social paradigm defined as “modernism” and its contribution to the development of the conditions which led to the First World War. Honors students will take a more in-depth approach to the topics covered with Socratic seminars and additional papers and projects required. In addition, students will engage in historical source readings, analysis and discussion.

SST08 WORLD HISTORY 1914-PRESENT:HON

GRADE 10 required ½ CR SEM
PREREQUISITE: SST06 and teacher recommendation

This course is a continuation of World History starting at 1914 and progressing to the end of the Cold War with special emphasis on World War I, the Interwar Years, World War II, and the Cold War. Students will analyze the causes and effects and evaluate the role major players had in

these global events. Students will be able to participate in role-playing activities throughout the semester to bring history to life and make it more relevant to our lives. Honors students will take a more in-depth approach to the topics covered with Socratic seminars and additional papers and projects required. In addition, students will engage in historical source readings, analysis and discussion.

SST09 AMERICAN HISTORY TO 1865

GRADE 11 required ½ CR SEM
PREREQUISITE: SST07 or equivalent

This course will survey American History from the Colonial Period to the Civil War. The emphasis will be on studying basic topics in American History such as the Colonial Era, the War for Independence, launching a New Nation through an Era of Growth and Disunion leading to the Civil War. Special emphasis will be to learn about history by thinking like an historian.

SST10 AMERICAN HISTORY SINCE 1865

GRADE 11 required ½ CR SEM
PREREQUISITE: SST09 or equivalent

This course will survey American History from Reconstruction to the emergence of Modern America. The emphasis will be on studying basic topics in American History such as Reconstruction, World War I, the 1920s, the Great Depression, World War II and its aftermath and the Cold War. Special emphasis will be to learn about history by thinking like an historian.

**SST11 UNITED STATES HISTORY TO 1865:
HON/CC**

GRADE 11 required ½ CR SEM
PREREQUISITE: SST08, teacher
recommendation, and a minimum GPA of 3.0 on
a 4.0 scale, and minimum Lexile (SRI score) of
1200

This course will cover major topics in United States history from the Colonial Period through the Civil War. Topics include the growth of the American colonies, the American Revolution, the development of Nationalism and Sectionalism, and how these contributed to the Civil War. Three college credit hours per semester are available through St. Louis University.

**SST12 UNITED STATES HISTORY SINCE 1865:
HON/CC**

GRADE 11 required ½ CR SEM
PREREQUISITE: SST10, teacher
recommendation, and minimum GPA of 3.0 on a
4.0 scale

This course will cover major topics in United States history from the post Civil War era to the present. Topics include Reconstruction, the two World Wars, and Modern America from 1945-Present. Three college credit hours per semester are available through St. Louis University.

SST13 AMERICAN POLITICS:HON/CC

GRADE 12 Elective ½ CR SEM
PREREQUISITE: SST12, teacher
recommendation, and a minimum GPA of 3.0 on
a 4.0 scale

This course provides an introduction to United States politics. Topics include an introduction to

America's constitutional foundations, elements of mass public politics (public opinion and participation), the role of organizations (interest groups, media, parties), and the function of institutions (Congress, Presidency, Courts), as well as Civil Rights and Liberties.. We will address "big questions" in American politics and discuss different arguments based on the evidence brought to bear on these questions. Three college credit hours are available for this course through UMSL. This course includes the concepts taught in Civics.

**SST14 AMERICAN FOREIGN POLICY 1945 -
PRESENT:HON/CC**

GRADE 12 ½ CR SEM
PREREQUISITE: SST13, teacher
recommendation, and a minimum GPA of 3.0 on
a 4.0 scale

This course will study the role of the United States as a major world power, factors that influence the formation and the execution of United States foreign policy, and its relations with foreign countries after WWII. Students will analyze a range of primary and secondary sources and engage in thoughtful discussions and deliberations about history and decision making on contested foreign policy issues. Three college credit hours are available for this course through UMSL.

SST15 CURRENT ISSUES

GRADE 11-12 ½ CR SEM
PREREQUISITE: none

This course explores the important issues facing our nation and the world today in one semester. Students will use a variety of news sources to investigate and discuss topics being debated by U.S. citizens and lawmakers about some of today's important concerns on a national and

international level. This course will help students make informed decisions in an election, learn what it means to be a liberal vs. a conservative, and state an opinion or take a stand on an issue so that they will be able to do so from an informed perspective. Possible topics include constitutional rights, crime and drugs, health care, sports, social media, gun control, and other issues relevant to our lives and society. Topics change from semester to semester. Students can only take this course one time.

SST16 PSYCHOLOGY

GRADE 11-12 ½ CR SEM
PREREQUISITE: none

This course provides an introduction to key basic concepts in the field of psychology. Topics include the founders of psychology, comparing different approaches to understanding human behavior, conducting and analyzing psychological research, research ethics, developmental psychology, consciousness, and psychological disorders. Students supplement these topics with research presentations chosen by the student and instructor, which explore

topics such as personality, motivation, emotion, group interaction, and memory. This course aims to help students understand human behavior and introduce concepts which students will encounter in introductory psychology courses at the undergraduate level.

SST17 CIVICS

GRADE 12 required ½ CR SEM
PREREQUISITE: none

This course is required for any student not enrolled American Politics:CC. This course provides an in-depth study of our government and democracy in action with an emphasis on how the actions of the federal, state, and local government as well as actions by citizens affect our daily lives. In order to examine the role of government in our lives, we will study the U.S. Constitution, Bill of Rights, and Missouri Constitution and integrate current events and issues as they relate to our government and democracy in action. At the end of this semester, students will be informed on how our government works and be empowered to be a part of our democracy.

THE02 JESUS CHRIST

GRADE 9 required ½ CR SEM
PREREQUISITE: none

The students will continue their study using the Bible on the mystery of Jesus Christ, the Living Word of God, Second Person of the Blessed Trinity. In this course students will understand that Jesus Christ is the ultimate Revelation through the New Testament as well as Church Documents. In learning about who He is, the students will also learn who He calls them to be.

Throughout the semester we will begin an introduction to the Theology of the Body which focuses on the dignity of the human person and human sexuality. This will be reinforced in all future courses.

THE03 PASCHAL MYSTERY

GRADE 10 required ½ CR SEM
PREREQUISITE: none

This course will help students understand all that God has done for us through His Son, Jesus Christ. Students will learn that for all eternity, God has planned for us to share eternal happiness with Him, which is accomplished through the redemption Christ won for us in the events of the Passion, Crucifixion, Resurrection and Ascension. Students will continue to develop their role as a disciple of Christ through prayer and the Paschal Mystery in the life of the Church.

THE04 CHURCH

GRADE 10 required ½ CR SEM
PREREQUISITE: none

This course will help the students understand ecclesiology: learning an understanding of the role of the Church in our lives as well as the

nature and structure of the Church, including the divine and human elements therein. Founding the Church, passing it down through the Apostles and sustaining His living Body through the Holy Spirit until today, we encounter the living Jesus Christ now and forever.

THE05 SACRAMENTS

GRADE 11 required ½ CR SEM
PREREQUISITE: none

“The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the sacraments, and especially through the Eucharist. Students will examine each of the sacraments in detail so as to learn how they may encounter Christ throughout life” (USCCB).

THE06 MORALITY

GRADE 11 required ½ CR SEM
PREREQUISITE: none

“The purpose of this course is to help students understand that it is only through Christ that they can fully live out God’s plan for their lives” (USCCB). This course leads the students toward a deeper understanding of God’s Law revealed to us through reason and Revelation. “Students are to learn the moral concepts and precepts that govern the lives of Christ’s disciples” (USCCB). Christian morality is about response to God’s love by living in full communion with God and others. Theology of the Body is also taught in light of the sixth and ninth Commandments.

THE07 CATHOLIC SOCIAL TEACHING

GRADE 12 required ½ CR SEM
PREREQUISITE: none

This course is an overview of Catholic Social Teaching. This includes an explanation of the Church's Social teachings and how we, as Catholics, respond to the different moral challenges in our society. The Catechism of the Catholic Church, the Compendium of Social Doctrine, Papal Encyclicals, documents from the USCCB, and Sacred Scripture will be the basis of study for these topics. The Themes of Social Justice: The Dignity of the Human Person, The Call to Family, Community and Participation, Rights & Responsibilities, Preferential Option for the Poor and Vulnerable, The Dignity of Work

and Workers, Solidarity and Care for the Earth will be studied.

THE08 VOCATIONS

GRADE 12 required ½ CR SEM
PREREQUISITE: none

The course is centered on important questions and concepts about the meaning of vocation and spiritual discernment. The course explores foundational concepts integral to an understanding of vocation as God's call and our response within Holy Orders, the lay life, married life as well as a consecrated life.

WORLD LANGUAGES DEPARTMENT

The St. Pius X High World Languages Department in alignment with the American Council on the Teaching of Foreign Languages would like the St. Pius graduates to have the opportunities and resources to become “linguistically and culturally equipped to communicate successfully in a pluralistic American society and abroad.”

Wellness Courses	Course Length	Freshman	Sophomore	Junior	Senior
Spanish I	Year	X	X	X	
Spanish I:H	Year	X			
Spanish II	Year		X	X	X
Spanish II:H	Year		X		
Spanish III:H/CC	Year			X	
Spanish IV:H/CC	Year				X

FLN01 SPANISH I

GRADE 9-11 required 1 CR YR
 PREREQUISITE: scores on standardized tests in reading and English

Spanish I is an introduction to the Spanish language and Hispanic cultures. Targeted skills include listening comprehension, reading comprehension, writing, speaking, pronunciation, grammar knowledge and use, vocabulary knowledge and use, geography of the Spanish-speaking world, and cultural awareness. A basic working knowledge of the Spanish language should be achieved by the end of this course.

FLN02 SPANISH I:HON

GRADE 9 required 1 CR YR
 PREREQUISITE: minimum 85th percentile on standardized test in reading and English

Spanish I is an introduction to the Spanish language and Hispanic cultures. Targeted skills include listening comprehension, reading

comprehension, writing, speaking, pronunciation, grammar knowledge and use, vocabulary knowledge and use, geography of the Spanish-speaking world, and cultural awareness. By the end of this course, students should achieve a beginner’s knowledge of the Spanish language. The content and assessments of this course are more rigorous.

FLN03 SPANISH II

GRADE 10-12 required 1 CR YR
 PREREQUISITE: FLN01 or equivalent

Spanish II is a continuation of Spanish I. Targeted skills include listening comprehension, reading comprehension, writing, speaking, pronunciation, grammar knowledge and use, vocabulary knowledge and use, geography of the Spanish-speaking world, and cultural awareness. By the end of this course, students should achieve a beginner’s intermediate knowledge of the Spanish language.

