



Course Catalog 2018-2019

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Graduation Requirements

To receive a diploma from SJBHS, a student must have:

1. A history of good character and citizenship
2. Participation in a grade level retreat during each year of attendance at SJBHS
3. Successful completion of required Community Service Hours (20 hours/school year).
4. Successful completion of Senior Exit Interview
5. Satisfaction of all subject matter unit requirements:

Subject Matter Graduation Requirements

40 Units Religion
40 Units English
30 Units Mathematics
30 Units Science
30 Units Social Science
20 Units World Languages
10 Units Visual and Performing Arts
15 Units Physical Education
5 Units Health
40 Units Electives
Total: 260

NOTE: Grades lower than C must be remediated in the following summer in order for a student to matriculate in their subject matter graduation requirement sequence.

Sample Four Year Plan

	Freshman	Sophomore	Junior	Senior
Religious Studies	The Revelation of Jesus Christ in Scripture/Who is Jesus Christ? [Christology 1]	Christology 2/Ecclesiology, Sacraments, and Liturgy	Life in Jesus Christ [Christian Morality and Ethics]/World Religions	Social Justice/Christian Vocations
English	Composition/World Literature 1	Composition/World Literature 2	Composition/American Literature	Composition/British Literature
Social Studies		Modern World History	U.S. History	Civics/Economics
Mathematics	Algebra	Geometry	Algebra 2	Elective
Science	Biology	Chemistry	Physics	Elective
World Languages	Spanish 1	Spanish 2	Spanish 3	Elective
VAPA	VAPA Elective			
Pathway/Electives	PE/Health, Pathway, or Elective	PE/Health, Pathway, or Elective	PE/Health, Pathway, or Elective	PE/Health, Pathway, or Elective

2018-2019 Course Prerequisites

***Students who do not fulfill a course prerequisites may request to enroll in a course by application/petition.**

English Department	
Course	Prerequisite
Honors Composition and World Literature 1	Minimum score of 7 on Stanine of High School Placement Test
Honors Composition and World Literature 2	A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors.
AP English Language and Composition	A in Composition and World Literature 2 or a minimum grade of B in Composition and World 2 Honors
AP English Literature and Composition	A in Composition and American Literature or a minimum grade of B in AP English Language and Composition
Journalism	Composition and World Literature 2 or Composition and World Literature 2 Honors
Mathematics Department	
Geometry	1) Algebra 1 or (2) HSPT Score between 6 and 8 and a Geometry Readiness Score of 70% or better
Geometry Honors	(1) A in Algebra 1 or (2) Stanine score of 7-9 on the Placement Test and MDTP Geometry Readiness score of 90% or better
Algebra 2	(1) Geometry or Honors Geometry or (2) HSPT Score between 4 and 9 and a Second Year Algebra Readiness Score of 70% or better.
Algebra 2 Honors with Trigonometry	A in Geometry or a minimum grade of B in Geometry Honors
Elementary Statistics	Algebra 2
Pre-Calculus	Algebra 2 with Trigonometry Honors or a minimum grade of B in Algebra 2
Pre-Calculus Honors	A in Algebra 2 or a minimum grade of B in Algebra 2 with Trigonometry Honors
AP Statistics	A in Algebra 2 or a minimum grade of B in Algebra 2 with Trigonometry Honors
AP Calculus AB	A in Pre-Calculus and a minimum grade of B in Pre-Calculus Honors
AP Calculus BC	A minimum grade of B in AP Calculus AB
Science Department	
Biology Honors	Minimum Stanine score of 7 and concurrent enrollment in Geometry
Environmental Science	Biology
Chemistry and Lab	Biology

Chemistry Honors	A in Biology or a minimum grade of B in Biology Honors
Physics and Lab	Chemistry
AP Environmental Science	(1) Minimum grade of B in Biology AND a minimum grade of B in Chemistry OR (2) Biology Honors and Chemistry Honors
AP Biology	A minimum grade of B in Biology AND a minimum grade of B in Chemistry
AP Chemistry	A in Chemistry or a minimum grade of B in Chemistry Honors
AP Physics 1	Algebra 2 AND a minimum grade of B in Chemistry
AP Physics 2	AP Physics 1
Anatomy and Physiology	Biology AND Chemistry and Lab
Non-Departmental	
Internship	Limited spaces. Open to senior students with multiple Honors/AP classes or with special circumstances. Requires the approval of the Director of Counseling.
Social Science Department	
AP World History	A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors
AP Human Geography/AP Psychology	Minimum grade of A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors
AP European History	Minimum grade of A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors
AP United States History	A in Modern World History or minimum grade of B in AP World History or AP European History
AP Government and Politics	A in US History or minimum grade of B in AP US History
AP Comparative Government and Politics	A in US History or minimum grade of B in AP US History
Visual & Performing Arts Department	
Advanced Drawing and Painting	Minimum grade of B in Drawing and Painting
Animation 2	Animation 1
Ceramics	Exploring Art
Drawing & Painting	Exploring Art
Intermediate Band	Completion of Concert Band OR by teacher recommendation
Photography/Yearbook	Teacher recommendation

World Languages Department	
Spanish 1 for Heritage Speakers	Demonstrated Spanish competency on the Heritage speaker placement assessment
Spanish 2 for Heritage Speakers	Spanish 1 for Heritage Speakers
Spanish 3	Spanish 2 or Spanish 2 for Heritage Speakers
Spanish 3 Honors	A in Spanish 2 or minimum grade of B in Spanish 2 for Heritage Speakers
AP Spanish Language and Culture	A in Spanish 3 OR minimum grade of B in Spanish 2 for Heritage Speakers OR minimum grade of B in Spanish 3 Honors
AP Spanish Literature and Culture	Minimum grade of B in AP Spanish Language and Culture
French 2	French 1
French 3	French 2
AP French Language and Culture	Minimum grade of B in French 3
Latin 2	Latin 1
Latin 3 Honors	Minimum grade of B in Latin 2
Mandarin 2	Mandarin 1
Mandarin 3	Mandarin 2
AP Chinese Language and Culture	Minimum grade of B in Mandarin 3
Kinesiology	
Advanced Strength & Conditioning	Teacher Recommendation
Pathways	
Engineering	Introduction to Engineering--->Principles of Engineering--->Applied Engineering--->Engineering Capstone
Biomedical Science	Intro to Health Sci/Medical Ethics--->Cell & Molecular Biology--->Anatomy & Physiology BIO MED--->Capstone & Molecular Genetics/Cell Bio
Social Entrepreneurship	Entrepreneur in the Classroom--->Social Entrepreneurship --->Organizational Leadership --->Financial Literacy
Sports Medicine	Intro to Kinesiology/Sports Nutrition & Performance--->Intro to Sports Medicine/Sports Anatomy--->Lower & Upper Body Injury Eval & Rehab--->Advanced Field Work

New Courses for the 2018-2019 School Year

Course	Summary
Academic Decathlon	0-period class for students who love learning and want to participate on a team to compete against other schools.
AP Human Geography/ AP Psychology	AP Psychology will now be offered alongside AP Human Geography; students will learn the systematic and scientific study of the behavior and mental processes of human beings and other animals.
AP Statistics	Students interested in a college-level math and pursuing a career in social sciences and sciences would benefit from taking AP Statistics. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data
Color Guard	This course provides students with the opportunity to create and perform movement pieces, develop show designs and works, learn and practice teaching techniques, interpret and evaluate dance and color guard, and enhance competency leading to successful career opportunities.
Computer Science	Students in this courses will learn the fundamentals and principles of programming for app/software development.
Drumline / Percussion Band	This course teaches the basics of music reading and performance in the area of orchestral percussion. Percussion instruments to be covered include snare drum, bass drum, xylophone, vibraphone, marimba, timpani and auxiliary percussion instruments such as tambourine and triangle.
Jazz Band	The purpose of this course is for the students to continue to improve and develop their skills, knowledge, and appreciation of jazz music through active listening and performance of varied jazz idioms and to be able to effectively communicate this understanding through the use of jazz idioms and improvisation.
Marching Band/Wind Ensemble	This course will expose and develop the student's knowledge and understanding of basic theory, instrument practice, and technique, both in an ensemble setting and in an individual practice setting. In addition, students will learn both the physical and mental types of marching routines in relation to the style of music.
Physical Education	As an alternate to Strength and Conditioning, Physical Education allows students to engage in physical activities and sports to maintain a healthy lifestyle.
Robotics	Students will work in engineering teams to design, build and test increasingly complex robots.

	The course will illustrate the importance of integrating sensors, complex machine control, and briefly discuss robot learning and multi-robot systems.
Theater Arts 2	Students who have completed Theater Arts 1 and/or have participated in theater productions are welcome to take a second year course in Theater Arts. Students engage in the study of various genres of theater literature, further development of the craft of acting, and in-class performance projects including directing and design as well as further development of the technical aspects of theater production and production assistance.

List of Elective Courses

All courses are full-year courses unless listed otherwise.

Number	Title	Notes
BS150	Biomedical Science 1: Introduction to Health and Science Technology/Medical Ethics	Fulfills UC "g" Elective requirement
BS250	Biomedical Science 2: Cell and Molecular Biology	Fulfills UC "g" Elective requirement
BS350	Biomedical Science 3: Anatomy and Physiology	Fulfills UC "d" Lab Science requirement
BS450	Biomedical Science 4: Medical Genetics/Biomedical Scholar Intern	Pending UC approval
SE150	Entrepreneurship 1: Entrepreneur in the Classroom	Fulfills UC "g" Elective requirement
SE250	Entrepreneurship 2: Social Entrepreneurship	Fulfills UC "g" Elective requirement
SE350	Entrepreneurship 3: Organizational Leadership	Pending UC approval
SE450	Entrepreneurship 4: Financial Literacy	Pending UC approval
SM150	Sports Medicine 1: Intro to Kinesiology	Fulfills UC "g" Elective requirement
SM250	Sports Medicine 2: Introduction to Sports Medicine	Fulfills UC "g" Elective requirement
SM350	Sports Medicine 3: Lower/Upper Body Injury Evaluation and Rehab	Pending UC approval
SM450	Sports Medicine 4: Advanced Sports Medicine (Field Work)	Pending UC approval
EG150	Engineering 1: Introduction to Engineering Design	Fulfills UC "g" Elective requirement

EG250	Engineering 2: Principles of Engineering	Fulfills UC "g" Elective requirement
EG350	Engineering 3: Applied Engineering	Fulfills UC "g" Elective requirement
EG450	Engineering 4: Engineering Capstone	Pending UC approval
EN360	Journalism	Fulfills UC "g" Elective requirement
KN100	Health (5-unit class)	Fulfills SJB graduation requirement
KN110	Strength & Conditioning (5-unit class)	Fulfills SJB PE graduation requirement (15 units required)
KN120	PE (5-unit class)	Fulfills SJB PE graduation requirement (15 units required)
KN205	Advanced Strength & Conditioning for Seniors (5-unit class)	Fulfills SJB PE graduation requirement (15 units required)
ND350	Internship	Pass/Fail class
SC200	Environmental Science	Fulfills UC "d" Lab Science requirement
SC350	Anatomy & Physiology	Fulfills UC "d" Lab Science requirement
SS2000	AP World History	Fulfills UC "a" History requirement
SS2500	AP Human Geography/AP Psychology	Fulfills UC "a" History and "g" Elective requirements
SS2600	AP European History	Fulfills UC "a" requirement
VP100	Exploring Art	Fulfills UC "f" VAPA requirement
VP110	Theatre Arts 1	Fulfills UC "f" VAPA requirement
VP120	Beginning Band	Fulfills UC "f" VAPA requirement
VP130	Animation 1	Fulfills UC "f" VAPA requirement
VP210	Theatre Arts 2	Pending UC approval
VP230	Animation 2	Pending UC approval
VP250	Drawing and Painting	Fulfills UC "f" VAPA requirement

VP270	Intermediate Band	Fulfills UC "f" VAPA requirement
VP350	Advanced Drawing	Fulfills UC "f" VAPA requirement
VP360	Media Production	Fulfills UC "f" VAPA requirement
VP370	Photography/Yearbook	Fulfills UC "f" VAPA requirement
VP380	Ceramics	Fulfills UC "f" VAPA requirement
WL150	College Prep Language & Culture 1	For Cambridge students only
WL250	College Prep Language & Culture 2	For Cambridge students only
WL350	College Prep Language & Culture 3	For Cambridge students only

Period 0 and 8 Elective Courses

Number	Title	Notes
ND400	Academic Decathlon	Period 0 class; fulfills UC "g" Elective requirement
EG100	Robotics	Period 8 class; pending UC approval
VP140	Drumline	Period 8 class; pending UC approval
VP150	Jazz Band	Period 8 class; pending UC approval
VP160	Marching Band	Period 8 class; pending UC approval
VP170	Percussion Band	Period 8 class; pending UC approval

English

40-unit graduation requirement

All courses are UC-approved and satisfy UC and Cal State application requirements unless otherwise indicated.

EN100 Composition and World Literature 1

This course is designed to introduce students to literature from various cultures, and to enhance and improve their writing abilities through various types of written assignments. Through these written assignments, projects, and various activities, students also develop research, listening, and speaking skills. The literature portion of the course reviews primary elements of literature and poetry, and examines the function of these elements within various literary works, while also incorporating relevant art, music, and philosophical ideas. In terms of writing, students will improve and develop their skills in writing narratives, multi-draft compositions, expository compositions, journals, and autobiographical compositions. This course provides a foundation for the English curriculum that students will encounter in their remaining years at St. John Bosco High School.

EN105 Composition and World Literature 1 Honors

Prerequisite: Strong performance on the High School Placement Test (HSPT). This course is designed to introduce students to literature from various cultures, and to enhance and improve their writing abilities through various types of written assignments. Through these written assignments, projects, and various activities, students also develop research, listening, and speaking skills. The literature portion of the course reviews primary elements of literature and poetry, and examines the function of these elements within various literary works, while also incorporating relevant art, music, and philosophical ideas. In terms of writing, students will improve and develop their skills in writing narratives, multi-draft compositions, expository compositions, journals, letters, and autobiographical compositions. This course provides a foundation for the English curriculum that students will encounter in their remaining years at SJBHS.

EN150 University Prep

University Prep is an elective course that offers ninth graders some important keys to high school success. This course will offer students instruction in organizational strategies, goal setting and time management techniques. It will introduce freshmen to the high school experience focusing traditions, activities, and services available. Students will work on high school planning, and explore post-secondary career options. Students will have one-on-one conference time with the teacher throughout the semester and opportunities to engage in scholarship.

EN200 Composition and World Literature 2

Prerequisite: Composition and World Literature 1. This course continues to focus on multiculturalism as begun in the freshman year as well as on the multiplicity of social and historical issues addressed in the literature. Encompassed within the teaching of the various core novels, plays, short stories, and poetry is a concentration on writing and the writing process. Within the teaching of the writing process is the development of vocabulary including literary terms, grammar usage, and words from the literature itself. Also present is a continued focus on the development of speaking and listening skills with an emphasis on the use of visual aids and technological tools.

EN205 Composition and World Literature 2 Honors

Prerequisite: A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors. Composition and World Literature 2 Honors continues to focus on multiculturalism through World Literature begun in the World Literature and Composition 1, freshmen year. The course also seeks to address the multiplicity of social issues addressed in literature. Encompassed within the teaching of the various core novels, short stories, and poetry is a

concentration on intensive writing and the writing process. Within the teaching of the writing process is the intense development of vocabulary including literary terms, grammar usage, and words from the literature itself. A quality, contemporary and educational vocabulary is established. In this course, language skills are reinforced in terms of grammar, mechanics, and syntax. The course continues to focus on the development of oral communication with an emphasis on the use of visual aids and electronic media. Self-assessment continues to be an important focus of the course.

EN300 Composition and American Literature

Prerequisite: Composition and World Literature 2. Refines and continues building on the basic skills presented in the ninth and tenth grades. Its primary focus is a thematic survey of American literature. Through a variety of assessments, the student analyzes and synthesizes the evolution of the American character and the American Dream. Student communication skills are further enhanced through the development of personal, analytical and creative writing.

EN3000 AP English Language and Composition

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Composition and World Literature 2 or a minimum grade of B in Composition and World 2 Honors. An alternative for the 11th grade student, it trains the student to be a skilled reader of prose and poetry written during various historical and literary epochs—though its primary focus is the American character and the American Dream. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

EN400 British Literature and Composition

Prerequisite: Composition and American Literature or AP English Language and Composition. This course continues to refine and develop those skills reintroduced and emphasized during the previous years. It surveys a core of British literature to serve as a summation and emphasis of all literary concepts from the ninth, tenth, and eleventh grades. The various activities develop students' research and writing skills, as well as their listening and speaking skills. The literature portion of the class introduces the students to canonical and contemporary British literature, incorporating relevant art, music, and philosophical ideas. This course does give a sense of finality to the scope and sequence of the English curriculum, yet it also fosters a life-long love of literature and learning.

EN4000 AP English Literature and Composition

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Composition and American Literature or a minimum grade of B in AP English Language and Composition. An alternative for those seniors who meet the minimum requirements set by the department and who wish to challenge themselves with the taking of the AP exam in May of the senior year. The course emphasizes all aspects of the English language. All literature serves as a source as the students read through the genre of the literary world. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

EN360 Journalism

Prerequisite: Composition and World Literature 2 or Composition and World Literature 2 Honors. This year-long course presents the fundamentals of journalism and journalistic writing. It introduces the differing styles of communication that characterize the newspaper: writing, style, and publication. This course also serves to write and publish the school's newspaper, The Brave.

Kinesiology

5-unit Health and 15-unit PE requirements for graduation

All courses are UC-approved and satisfy UC and Cal State application requirements unless otherwise indicated.

KN100 Health

This is a semester-long course designed to bring comprehensive health awareness to the student. The course will cover seven major content areas of health education. Students will work individually and cooperatively to explore, analyze, and solve health related problems and issues. Positive lifelong health habits will be encouraged by development of conceptual knowledge and practical skills.

KN110 Strength and Conditioning

This course provides a framework of knowledge in athletic conditioning. It demonstrates an examination of exercise technique, program design, periodization, and the development of bio-motor abilities. Instruction methods for speed, agility, flexibility, plyometrics, and Olympic lifting are also included.

KN120 Physical Education

This course is designed to give students the opportunity to learn through a comprehensive sequentially planned Kinesiology and Physical Education program in accordance with the California Model Content Standards for Physical Education. Students will be empowered to make choices, meet challenges and develop positive behaviors in fitness, wellness and movement activity for a lifetime. Emphasis is placed on students analyzing skills for effective movement.

KN200 Advanced Strength and Conditioning

This course builds upon the framework of knowledge in athletic conditioning from the Strength and Conditioning course. Students demonstrate an advanced methodology of exercise technique, program design, periodization, and the development of bio-motor abilities. Students must be members of the Varsity Football team to enroll in this class. Second-semester seniors cannot take this course.

SPORTS MEDICINE PATHWAY COURSEWORK

SM150 Sports Medicine 1: Introduction to Kinesiology/Sports Nutrition and Performance

Kinesiology is the study of human movement and the associated responses and adaptations. In this context, a kinesiologist must understand the scientific basis underlying exercise-induced biomechanical and physiological responses. Although kinesiology professionals often work in sports medicine facilities, the field of kinesiology is quite broad. Depending upon one's area of interest, a kinesiology major might study: (1) how to develop and lead exercise programs for diverse populations; (2) how organ systems work at the cellular level; or (3) how to improve biomechanical efficiency in tasks of everyday living.

The basic principles of human nutrition are investigated, emphasizing the nutrients, food sources, and their utilization in the body for growth and health throughout life. This course also assesses contemporary nutrition issues. Students will also study functions, digestion/absorption, interrelationships, cellular metabolism of the macronutrients; determination of nutrient requirements, assessment of nutritional status, fluid balance and acid base balance during health exercise.

SM250 Sports Medicine 2: Introduction to Sports Medicine/Sports Anatomy and Movement

Prerequisite: Sports Medicine 1. Sports Medicine is a program designed for students interested in fields such as athletic training, physical therapy, medicine, fitness, physiology of exercise, kinesiology, nutrition, and other sports medicine related fields. The program includes class work and practical hands-on application. This class will introduce basic skills to include: anatomy, physiology, kinesiology, hygiene, nutrition, taping, bracing, emergency procedure, conditioning, injury prevention, injury evaluation, rehabilitative procedures and incorporate practice and game observations.

This course is designed to understand the movement in the muscular and skeletal systems. Information involving the structure and function of the human body is discussed in lecture and the laboratory. Anatomy and Physiology is designed to help meet the needs of students preparing for their field work practicum. This course builds upon the previous Sports Medicine coursework and outlines the major muscular and skeletal functions used in the fourteen sport offerings in the school as well as the major injuries associated.

SM350 Sports Medicine 3: Lower/Upper Body Injury Evaluation and Rehabilitation

Prerequisite: Sports Medicine 2. This course allows the student to expand upon the knowledge of the mechanism, assessment, and reconditioning of athletic lower and upper body injuries. Emphasis is placed upon injury mechanism and assessment, the phases of healing, modalities used in the healing process, and the application of exercise and the exercise equipment used in the reconditioning of athletic injuries.

SM450 Sports Medicine 4: Advanced Sports Medicine (Field Work)

Prerequisite: Sports Medicine 3. Advanced Sports Medicine is designed for students to assist in the fields of Athletic Training, Physical Therapy, Occupational Therapy, Sports Performance Clinic, Chiropractors, and Rehabilitation on and off campus under the supervision of a professional. Must have approval from department chair and principal before taking course.

Mathematics

30-unit graduation requirement

All courses are UC-approved and satisfy UC and Cal State application requirements.

MA100 Algebra 1

This is a course in elementary algebra for the average and above average student. The subject covers an in depth study of the topics of number, linear equations and inequalities of one and two variables, polynomials and polynomial equations, and problem solving.

MA200 Geometry

Prerequisite: (1) Algebra 1 or (2) HSPT Score between 6 and 8 and a Geometry Readiness Score of 70% or better. A course in Euclidean Geometry for the average to above average student. It provides a careful in depth study of the principles of geometry covering the topics of: parallel lines, congruency, similarity, polygons, circles, constructions, area, volume, and coordinate geometry.

MA205 Geometry Honors

Prerequisite: (1) A in Algebra 1 or (2) Stanine score of 7-9 on the Placement Test and MDTP Geometry Readiness score of 90% or better. The Honors Geometry course is a comprehensive look at the study of geometric concepts including the basic elements of geometry, proofs, parallel and perpendicular lines, the coordinate plane, triangles, quadrilaterals, polygons, circles, trigonometry, congruence and similarity, surface area, volume and transformations. This class will also include a look into some Algebra concepts as well as a study of conics.

MA300 Algebra 2

Prerequisite: (1) Geometry or Honors Geometry or (2) HSPT Score between 4 and 9 and a Second Year Algebra Readiness Score of 70% or better. A continuation of the study of algebra for the average and above average student with a detailed focus on its structure. The topics covered will include: number, linear systems, polynomial equations, relations, functions conic sections, exponential and logarithmic functions, sequences, series and the counting principle.

MA305 Algebra 2 with Trigonometry Honors

Prerequisite: A in Geometry or a minimum grade of B in Geometry Honors. This course is designed for the above average student in mathematics. It is a preparation for the study of Precalculus Honors. It covers all of the major topics of Algebra 2 along with a full course of Trigonometry.

MA450 Elementary Statistics

Prerequisite: Algebra 2. An overview of the science of statistical estimation with a focus on a basic understanding of fundamental statistical measures, methods of quantifying and classifying data, current applications, and interpretation of the validity of statistical inference.

MA460 Pre-Calculus

Prerequisite: Algebra 2 with Trigonometry Honors or a minimum grade of B in Algebra 2. This is a course for the above average student in mathematics. The course provides a study of advanced algebra, trigonometry and an introduction to differential and integral calculus. It is a preparation for a comprehensive study of calculus.

MA465 Pre-Calculus Honors

Prerequisite: A in Algebra 2 or a minimum grade of B in Algebra 2 with Trigonometry Honors. A course designed for the superior student in mathematics. It is a preparation for the study of AP Calculus (BC). The course will review and enhance the study of: elementary functions, graphing, modeling, exponential and logarithmic functions and trigonometry, limits, continuity and will then cover the major concepts and applications of differential calculus and an introduction to integral calculus.

MA4500 AP Calculus AB

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Pre-Calculus and a minimum grade of B in Pre-Calculus Honors. This is a course for the superior mathematics student. It is a full-year college course in the theory, application and problem solving of the differential and integral calculus restricted to one variable. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

MA4700 AP Statistics

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Algebra 2 or a minimum grade of B in Algebra 2 with Trigonometry Honors. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: (1) Exploring Data: Describing patterns and departures from patterns; (2) Sampling and Experimentation: Planning and conducting a study; (3) Anticipating Patterns: Exploring random phenomena using probability and simulation; and (4) Statistical Inference: Estimating population parameters and testing hypotheses. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

MA4600 AP Calculus BC

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A minimum grade of B in AP Calculus AB. This course is a continuation of the Calculus series. It is a very rigorous course with differential and integral calculus extended to vectors, parametric equations, sequence, series and differential equations. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

Religious Studies

40-unit graduation requirement

RS100 The Revelation of Jesus Christ in Scripture (S-1) /Who is Jesus Christ? [Christology I] (S-2)

The purpose of these courses is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible they will come to encounter the living Word of God, Jesus Christ. In the course they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. If they have not been taught this earlier, they will learn how to read the Bible, and will become familiar with the major sections of the Bible and the books included in each section. In the first semester course, students will pay particular attention to the types and prophecies of Jesus in the Hebrew Scriptures

The second semester course introduces students to the Mystery of Jesus Christ, the Living Word of God, and the second Person of the Blessed Trinity. In this course students will understand that Jesus Christ is the ultimate revelation to us from God. In learning about who he is, the students will also learn who he calls them to be. In this second semester course, students will focus on the Gospels and the other sections of the New Testament.

RS200 The Mission of Jesus Christ - The Paschal Mystery [Christology II] (S-1) /Ecclesiology, Sacraments, and Liturgy (S-2)

Prerequisite: The Revelation of Jesus Christ in Scripture/Who is Jesus Christ? [Christology I]. The purpose of this course is to help students understand all the God has done for us through his Son, Jesus Christ. Through this course of study, 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. Students will learn that they share in this Redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails.

The second semester helps students understand that in and through the Church they encounter the Living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both Divine and human elements. In this course, students will learn not so much about events in the life of the Church, but about the sacred nature of the Church. Students will also 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.

RS300 Life in Jesus Christ [Christian Morality and Ethics] (S-1) /World Religions (S-2)

Prerequisite: The Mission of Jesus Christ (The Paschal Mystery) (Christology II)/Ecclesiology, Sacraments, and Liturgy. The purpose of this course is to help students understand the Catholic believe that it is through Christ that they can fully live out God's plans for their lives. Students are to learn the moral concepts and precepts that govern the lives of Christ's disciples.

The second semester course World Religions (a University of California approved course) helps students to understand the manner in which the Catholic Church relates to non-Catholic Christians and to other religions of the world. Building on the foundational truth that Jesus Christ established the Catholic Church and entrusted to her the fullness of God's Revelation, the course is intended to help students to recognize the ways in which important spiritual truths can also be found in non-Catholic Christian churches and ecclesial communities as well as in non-Christian religions in the spirit of the seminal Vatican II document, *Nostra Aetate*. It is also intended to help them to recognize the ways in which other systems of belief and practice

differ from the Catholic faith. Students will examine a primal religious tradition of their own choosing. The initial quarter of the course will examine the major eastern religions: Hinduism, Buddhism and Zen, Confucianism and Taoism. The last quarter will treat the western-monotheistic (Abrahamic) religions of Judaism, Christianity and Islam.

RS400 Social Justice/Christian Vocations

Prerequisite: Life in Jesus Christ (Morality and Ethics)/World Religions. This course offers students opportunities to begin to apply what they have come to believe as their vocation as a Christian. The course is designed to be a “practical discipleship” for young men living in the United States in the 21st century. Through the reflection on real life choices, students are able to begin to prayerfully reflect on their personal gifts and unique call by God. Special attention will be given to surveying the various life vocations within the Church: single life, married life, religious life and priestly life. The goal of the course is to help students understand and have some methods of coping with the opportunities, challenges, and developmental tasks facing young adults today.

Science

30-unit graduation requirement

All courses are UC-approved and satisfy UC and Cal State application requirements.

SC100 Biology

This college preparatory course utilizes lecture, film, laboratory activity, field excursions, and individualized study. It is an in depth analysis of cellular structure and function, human anatomy, plant physiology and anatomy, ecological interactions, evolution, and the multiple kingdoms. Students will be challenged to engage in critical thinking, collaboration, and analysis to develop solutions and results to problems.

SC105 Biology Honors

Prerequisite: Strong performance on the HSPT. This course presents an in-depth, detailed, fast-paced and comprehensive sequence of the fundamental concepts in Biology including (but not limited to): molecular and cellular biology; genetics; evolution; animal and plant diversity; animal and plant anatomy/physiology; and behavioral biology. Additionally, the lab component of this course introduces proper techniques and procedures in conjunction with various labs such as: dissections, microscopes, fieldwork, and real-world applications of biology. Both the lecture and lab components emphasize critical thinking, and self-motivated, independent research and learning.

SC110 Robotics

Pending UC approval. This is an 8th-period course.

Students will work in engineering teams to design, build and test increasingly complex robots. The course will illustrate the importance of integrating sensors, complex machine control, and briefly discuss robot learning and multi-robot systems. Students will be expected to solve challenges using physical robots and computer simulations. Students will work in teams to complete a larger design problem and participate in local and regional competitions. Special attention will be paid to the design process and its communication through both presentation and documentation. Students will explore additional hardware and software solutions to robotics problems. Students will learn advanced hardware and software techniques, as well as the mathematics and physics to understand them.

SC200 Environmental Science

Prerequisite: Biology. Environmental Science introduces students to the biological and physical systems of Earth. The course is a lab-based class designed to inquire and investigate the workings of Earth's many natural systems as well as how these systems are impacted and affected by human activity. Environmental Science is an unusual academic discipline in that it requires scientific knowledge about the natural world, as well as an understanding about ways in which humans interact with the natural world. We examine effects of human actions on the environment, and the means by which policies, regulations, and decisions influence human actions. We also examine human behavioral, cultural, and sociological interactions that affect the environment. Students will explore and design solutions to develop sustainable systems of Earth's many resources. An emphasis will be placed on making informed and ethical decisions concerning environmental issues in today's world.

SC210 Chemistry and Lab

Prerequisite: Biology. This college preparatory course covers eleven major conceptual sections. These include: classification and properties of matter, atomic theory, structure, and electron arrangements, quantitative composition of compounds, types of chemical reactions and stoichiometric analysis, types of chemical bonds and molecular shapes, the Kinetic Molecular Theory of Gases, solution concentrations and pH, acids and bases, oxidation and reduction, and an introduction to organic chemistry.

SC215 Chemistry and Lab Honors

Prerequisite: A in Biology or a minimum grade of B in Biology Honors. Chemistry Honors is a year-long college preparatory course designed for the motivated student. The major conceptual sections covered in this course are: classification and properties of matter, atomic theory, structure, and electron arrangements, qualitative composition of compounds, types of chemical reactions and stoichiometric analysis, types of chemical bonds and molecular shapes, the Kinetic Molecular Theory of Gases, solution concentrations and pH, acids and bases, oxidation and reduction, and an introduction to both organic chemistry and biochemistry. Students will gain knowledge that will be supplemented with hands-on labs and completion of lab reports. The laboratory component comprises approximately 20% of this course.

SC350 Anatomy and Physiology

Prerequisite: Biology AND Chemistry and Lab. This course provides students with the fundamental concepts of Anatomy and Physiology. The structures and functions of the human body are explored thoroughly in the laboratory and through interactive discussions. Students use critical thinking to solve clinical problems based on health issues of the human body. Anatomy and Physiology is designed to help meet the needs of students preparing for higher education and provide a more in-depth personal understanding of health and fitness. Students make connections between the skeletal, muscular, nervous, digestive, respiratory, circulatory, excretory, and reproductive systems.

SC360 Physics and Lab

Prerequisite: Chemistry. This college preparatory course utilizes lecture, laboratory and project activities to provide a conceptual and mathematical approach to understanding Physics. Major topics include motion, forces, vectors; static equilibrium; work, energy and momentum; kinetic theory, astrophysics, heat, thermodynamics; vibrations, simple harmonic motion, waves, sound; electricity and magnetism; and light and optics. Problem solving / critical thinking skills are fundamental to the course.

SC3500 AP Biology

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A minimum grade of B in Biology AND a minimum grade of B in Chemistry. This college level course utilizes lecture and laboratory activity to prepare the student for the Advanced Placement Examination following the College Board design. Students will utilize logical reasoning, critical thinking, written and oral communication, and mathematical applications when problem solving. Through the development of these problem-solving strategies, students will become better prepared for careers in medical, engineering, and other areas of natural science. Students will gain a greater, and much more in depth perspective and understanding in concepts covered in general Biology including: cellular structure and function, cell reproduction, DNA structure and function, ecological interactions, evolution, and genetics. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

SC3600 AP Chemistry

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Chemistry or a minimum grade of B in Chemistry Honors. This year-long Advanced Placement course is an extensive, in-depth analysis of the following areas of Chemistry; fundamental particles or matter, the mole concept and its relationships in chemical reactions, gases, thermochemistry, atomic structure, basic and advanced concepts in chemical bonding, chemical forces and states of matter, and chemical kinetics and equilibrium. All concepts are introduced and

reinforced through lectures as well as laboratory experimentation. The emphasis throughout the year is to prepare the student for the rigors of college chemistry through expanding their mastery of chemistry principles, to enhance their laboratory experimentation skills and data analysis, and to facilitate their success on the advanced placement examination following the College Board design. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

SC36000 AP Environmental Science

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: (1) Minimum grade of B in Biology AND a minimum grade of B in Chemistry OR (2) Biology Honors and Chemistry Honors.

The AP Environmental Science course is the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of 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. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

SC4500 AP Physics 1

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: Algebra 2 AND a minimum grade of B in Chemistry. AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore these topics: kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion; torque and rotational motion; electric charge and electric force; DC circuits; and mechanical waves and sound. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

SC4600 AP Physics 2

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: AP Physics 1. AP Physics 2 is an algebra-based introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore these topics: fluids; thermodynamics; electric force, field and potential; electric circuits; magnetism and electromagnetic induction; geometric and physical optics; and quantum, atomic, and nuclear physics. Students in this course will be prepared to take the AP Exam in May with the possibility of receiving college credit and/or placement.

BIOMEDICAL SCIENCE COURSEWORK

BS150 Biomedical Science 1: Introduction to Health and Science Technology/Medical Ethics

In the fall semester, this course covers the therapeutic, diagnostic, environmental, and information systems of the healthcare industry. The course focuses on health careers, exploration, leadership development, ethical and legal responsibilities, the history of health care, and the economics of health care. IHST integrates anatomy and physiology, body systems and their respective diseases and disorders, care and treatment modalities, and medical terminology. Clinical and patient care skills

are acquired, and the development of professionalism serves as a guiding principle to prepare students for work in the clinical setting.

The second semester examines ethics as practiced in the health care setting. ***The case studies and course curriculum are based on Catholic doctrine.*** This course develops philosophical knowledge centered on ethical awareness, ethical knowledge, and skills. Students will be introduced to several traditional moral theories, and will explore ethical cases within the health-care setting. This course will progress through a variety of ethical challenges that health professionals face throughout their careers. Topics may include: euthanasia, modern fertility interventions, treatment of impaired newborns, mental illness, use of animals in research, professional ethical codes, scarce resources, genetic engineering, inter-cultural issues, economics (ability to pay) and many other dilemmas that occur when practicing in health care.

BS250 Biomedical Science 2: Cell and Molecular Biology

Prerequisite: Biomedical Science 1 AND a minimum grade of B in Biology Honors. The course is an interdisciplinary course that bridges the fields of Chemistry, Biochemistry, Biology, Genetics, and Bio-Physics. It is a survey of the cell, as the fundamental structural and functional unit of life. The mechanisms of differentiation and coordinated activities, which form the molecular basis of cellular processes and interrelationships in eukaryotic systems, shall be analyzed. Molecular Pathology, the study of molecules in a disease state, shall be emphasized throughout the course as a means to diagnose, prevent, and treat disease.

BS350 Biomedical Science 3: Anatomy and Physiology

Prerequisite: Biomedical Science 2. This course studies the interrelationship of structure and function within and between human organ systems in terms of structure and function along with systemic relationships focusing on the issues, integumentary, skeletal, muscular, nervous and endocrine systems. Case studies will be a supplementary key to integrating knowledge through application. Laboratory work will be required, including anatomy dissection of rat, cat, cow eye, sheep brain, pig heart and kidney.

BS450 Biomedical Science 4: Medical Genetics/Biomedical Scholar Intern

Pending UC approval.

Prerequisite: Biomedical Science 3 AND a minimum grade of B in both semesters of Biomedical Science 2. In the fall semester, students survey the relationship between molecular biology, developmental biology, genetics, genomics, and clinical medicine. Explicit connections will be made between basic research, medical understanding, and the perspective of patients. Principles of human genetics are reviewed. Clinical understanding will emerge from analysis at the gene, chromosomal, and molecular level. Concepts and techniques both at the molecular and genomics level will be examined, as well strategies and methods of genetic analysis. Material in the course extends beyond basic principles in genetics, to overview current research activity in human genetics with an emphasis in clinical medicine.

This fourth-year course/capstone of the Biomedical Pathway will also engage students in administrative and clinical rotations, in a variety of areas at the program site. As a member of the COPE Health Scholar Program, the completion of 164 hours of clinical work performed at St Mary Medical Center are required. Hours are to be completed July 1st of the year prior to their Senior year, through the end of the fall semester of that same year. Successful completion of the program culminates with the awarding of a certificate from UCLA's School of Public Health in Patient Experience and Pre-Licensed Clinical Care. A student may elect to complete his hours at alternate biomedical sites, where he will intern in veterinary medicine, cellular and molecular research, or in other pre-approved areas of biomedical science.

ENGINEERING PATHWAY COURSEWORK

EG150 Engineering 1: Introduction to Engineering Design

Prerequisite: Algebra 1. The major focus of IED is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

EG250 Engineering 2: Principles of Engineering

Prerequisite: Engineering 1 AND Geometry. This survey course exposes students to major concepts they'll encounter in a post-secondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.

EG350 Engineering 3: Applied Engineering

Prerequisite: Engineering 2, Algebra 2 AND concurrent enrollment in Physics and Lab or higher. This course builds on the major concepts and skills learned in Introduction to Engineering Design and Principles of Engineering. Through the use of design problems students, working in teams, will be challenged to a deeper level of understanding and application of engineering topics in the areas of energy and power, control systems, and structures and materials. In addition, students will continue using 3D modeling, programming language, and data collection software to assist them in developing a design solution.

EG450 Engineering 4: Engineering Capstone

Prerequisite: Engineering 3, Pre-Calculus, Physics and Lab AND concurrent enrollment in a fourth-year mathematics class. In this capstone course, students work in teams to design and develop an original solution to a valid open-ended technical problem by applying the engineering design process. Students perform research to choose, validate, and justify a technical problem. After carefully defining the problem, teams design, build, and test their solutions. Finally, student teams present and defend their original solution to an outside panel.

Social Science

30-unit graduation requirement

All courses are UC-approved and satisfy UC and Cal State application requirements, unless otherwise noted.

SS200 Modern World History

Prerequisite: Composition and World Literature 1 or Composition and World Literature 1 Honors. This is a study of the major ideas, events and turning points in the shaping of the modern world. Modern World History focuses on world developments since the late 18th century. Among the periods covered are the Enlightenment, Industrial Revolution, Political Revolutions, Imperialism, World Wars I and II, the Cold War, and Contemporary Events. Critical thinking skills will be developed through analysis of events, cause and effect relationships, and prediction of consequences. Specific learning tools incorporate writing methods, public speaking, use of technology and literature.

SS2000 AP World History

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors. The purpose of the Advanced Placement World History course is to use relevant factual knowledge taken from primary and secondary sources with high-order thinking skills to acquire a greater understanding of the development of global processes, from ancient times to the present day. The course emphasizes the character of change and continuity in world structures and their impacts. Furthermore, this study will evaluate the interchange of major societies in the global community and the results of that interplay. Throughout the duration of this course, the instruction lends itself to chronological periodization as well as thematic perspective. Students in this course take the AP Exam in May with the possibility of receiving college credit or placement.

SS2500 AP Human Geography/AP Psychology

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors. May be taken as an elective course taken concurrently with Modern World History/AP World History/AP European History OR US History/AP US History. The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. Students will develop skills that enable them to use and think about maps and spatial data, understand and interpret the implications of associations among phenomena in places, and recognize and interpret at different scales the relationships among patterns and processes. The following topics will be covered in the course: Geography's nature and perspectives, population, cultural patterns and processes, political organization of space, agricultural and rural land use, industrialization and economic development, and cities and urban land use.

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. Students in this course take the AP Exam in May with the possibility of receiving college credit or placement.

SS2700 AP European History

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Composition and World Literature 1 or a minimum grade of B in Composition and World Literature 1 Honors. This course explores European history since 1450 by introducing students to the cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of AP European History are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing.

SS300 United States History

Prerequisite: Modern World History or AP World History or AP European History. This survey course consists primarily of readings in and lectures on the history of the United States. Course will trace the development of the United States from 1492 to the present day, using the traditional political-military approach as well as a social-cultural perspective.

Particular emphasis will be on events of the twentieth century, although Exploration and Colonization, Nationalism and Sectionalism, and Industrialization and Expansion will be reviewed appropriately. Students will develop practical familiarity with the geography of the nation, vocabulary appropriate to the study of American history, and understanding of the major historical periods, individuals, movements, and ideas that have contributed to the creation of the American society. Note taking, essay writing, and critical synthesis will be emphasized.

SS3000 AP United States History

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Modern World History or minimum grade of B in AP World History or AP European History. An accelerated lecture course intended to introduce students to college-level work and expectations. Familiarizes students with the significant events and issues of American history and develops the process of critical analysis necessary to interpret these facts. The course covers the major historical periods in United States history from 1492 to the present, and students will be expected to grasp basic factual knowledge and related themes. In addition, students will be exposed to historical debate on selected issues, focusing on areas of disagreement among historians. Critical thinking and essay writing skills will be strengthened throughout this challenging course. Participants may take the Advanced Placement Exam in May for college credit.

SS400 Civics/Economics

Prerequisite: US History or AP US History. Civics establishes the connection between the basic concepts of American constitutional government and the practical and philosophical applications of democratic participatory citizenship. Students are expected to master various theories of government, the foundations of the United States Constitution, the three-branch system of government, and citizen responsibilities. Both historical and current issues and controversies play a major role in the course and are integrated into the subject matter. Participation and critical thinking are emphasized. Students are encouraged to become informed citizens and to take an active role in the political process.

Economics is an introduction to the study of economics and economic systems prevalent in our world today. Special focus is on the economy of the United States - its structure, problems, and prospects. Course will cover economic foundations, alternative systems, microeconomics and macroeconomics, and aspects of the international economy. Students are expected to assimilate basic economic concepts, and to apply them in realistic situations. Various hands-on experiences may be provided to facilitate student understanding and participation, including the reading of case studies, playing the Stock Market, creating a budget, guest speakers, and current events applicable to the subject matter. Students must utilize mature thinking and writing processes in this course.

SS4000 AP U.S. Government and Politics

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in US History or minimum grade of B in AP US History. The overall goal of this college-level course is to develop an understanding of the American political system through an exploration of its philosophy, traditions, values, and Constitutional framework. Students will examine the organization, powers, and processes of the Congress, the Presidency, and Judiciary as they function in the political system. The problems of bureaucracy, faction, interest-group politics, and minority rights will also be explored. Students will write frequently and critically on a variety of topics related to the course and will have the opportunity to take the nationally administered Advanced Placement Exam in American Government for college placement or credit in May.

SS4500 AP Comparative Politics and Government

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in US History or minimum grade of B in AP US History. Advanced Placement Comparative Government is the study of governmental systems throughout the world with specific emphasis on classification and identification of similar trends in different political systems. The course is an overview of the field of comparative government combined with six different government specific case studies: United Kingdom, Russia, China, Mexico, Iran, and Nigeria. The material is designed and organized with ultimate goal of success of Advanced Placement examination in May. Reading assignments and required projects are listed in the syllabus. In addition to the reading assignments, students will be required to respond in class to free response type questions similar in format to those on the AP Exam. Students will have five unit tests that will be multiple choice and essay format.

SOCIAL ENTREPRENEURSHIP COURSEWORK

SE150 Social Entrepreneurship 1: Entrepreneurship in the Classroom

Designed and implemented by the Wharton School at the University of Pennsylvania faculty, with guidance from a set of the University of Pennsylvania Graduate School of Education advisors, the curriculum provides students with hands-on, inquiry-based methods to critically analyze core business concepts. The entrepreneurship curriculum utilizes mathematics to teach students learn to think critically as owners, developers, and entrepreneurs, by learning how to plan and make long-term business decisions. The curriculum includes developing business ideas, learning the competitive environment, sales and marketing, pricing strategies, operations and human resource management, cost analysis, budgeting and accounting, and presentation skills. The course emphasizes project-based learning and culminates in a formal business pitch that students make to school faculty, their peers, and other professional and business leaders.

SE250 Social Entrepreneurship 2: Social Entrepreneurship

Prerequisite: Social Entrepreneurship 1. Social entrepreneurship is recognized as encompassing a wide range of activities: enterprising individuals devoted to making a difference; social purpose business ventures dedicated to adding for-profit motivations to the nonprofit sector; new types of philanthropists supporting venture capital-like 'investment' portfolios; and nonprofit organizations that are reinventing themselves by drawing on lessons learned from the business world. This course explores entrepreneurship as a mechanism for social change, economic development, and community wealth creation. Specifically, we examine the concepts and practice of social entrepreneurship, through reading and project assignments, class discussions, cases, and guest speakers.

SE350 Social Entrepreneurship 3: Organizational Leadership & Management

This course is pending UC approval.

Prerequisite: Social Entrepreneurship 2. This introduction course will examine the theory and practice of leadership and decision-making in the nonprofit sector. Students will be exposed to core classic and contemporary theories on leadership, management, governance and organizational effectiveness of nonprofit organizations. This course will also focus on the effective management of human resources during the process of change. It emphasizes change management as a tool for survival, growth, increased productivity and conflict management in the complex and volatile business environment of today and the future. Change in an international environment also is discussed.

SE450 Social Entrepreneurship 4: Financial Literacy

Prerequisite: Social Entrepreneurship 3. Designed and implemented by the University of Pennsylvania Wharton School of Business faculty, with guidance from a set of UPenn Graduate School of Education advisors, the curriculum is designed to provide students with access to greater future wealth. Financial Literacy is a college preparatory, applied mathematics course integrated with key math content standards. The innovative finance curriculum utilizes mathematics to teach key life skills; students learn to think critically and plan for the long-term. The use of graphic analysis demonstrates to students the compounding effect of investing over forty years. The curriculum covers the importance of saving, strategies for generating and protecting greater wealth, as well as fundamental career skills including negotiations and professionalism. The course effectively fuses experiential and project based learning with core mathematics content and instruction.

Visual and Performing Arts

10-unit graduation requirement

All courses are UC-approved and satisfy UC and Cal State application requirements, unless otherwise indicated.

VP100 Exploring Art

This year-long course is intended to be an introduction to communication by drawing, working with black, white, and color using the Elements and Principles of Design. Searching and planning for ideas, styles, different drawing media (oil pastels, pastels, charcoal, graphite pencil, chalk and paints) and different techniques. The students will explore the options of composition, the light and shadows, and analyzing and critiquing completed work. A paper is required on artist styles.

VP110 Theater Arts 1

A year-long course designed to train students in the fundamental skills of acting and theatrical production. Students will study and learn the tools of an actor (mind, body and voice) and apply these tools to a range of in-class performances. In addition, students will gain an understanding of how writers, performers, and designers collaborate to produce a theatrical production. Theater history, how the human experience has been represented on stage throughout the centuries, will also be explored.

VP120 Beginning Band

Students will discover the world of music through hands-on work with concert band instruments. Musical terminology, rhythmic figures and reading skills will be learned to further enhance this experience. Concert Band is considered a performance group. Instruments being offered are Flute, Clarinet, Saxophone, Trumpet, Horn, Trombone, Baritone, Tuba, Electric Bass, Mallet Percussion and combined percussion.

VP130 Animation 1

This course will cover the history, theories, and creation process of 2D animation. All phases of production will be covered and will explore the art of storytelling and communicating artistic ideas through the use of traditional and computer animation techniques.

VP140 Color Guard

Pending UC approval. This is an 8th-period course.

This course provides students with the opportunity to create and perform movement pieces, develop show designs and works, learn and practice teaching techniques, interpret and evaluate dance and color guard, and enhance competency leading to successful career opportunities. Students will be expected to show knowledge of and demonstrate intermediate and advanced level dance movement in the styles of modern, ballet, jazz, contemporary, and other cultural dances. Students will also learn partner choreography and techniques, as well as safe techniques for partner sharing and weight sharing.

VP150 Drumline/Percussion Band

Pending UC approval. This is an 8th-period course.

This course teaches the basics of music reading and performance in the area of orchestral percussion. Percussion instruments to be covered include snare drum, bass drum, xylophone, vibraphone, marimba, timpani and auxiliary percussion instruments such as tambourine and triangle. Students will perform intermediate level percussion ensemble literature in a range of performance situations. Some performances will be on weekends, which may require traveling. Students will also prepare literature for concert band performances. Students will study and analyze music from historical periods and various cultures to gain a broad understanding of how music has been influenced by culture and period history. Students will study and analyze music theory at an intermediate level and create musical compositions at an intermediate level.

VP160 Jazz Band

Pending UC approval. This is an 8th-period course.

The purpose of this course is for the students to continue to improve and develop their skills, knowledge, and appreciation of jazz music through active listening and performance of varied jazz idioms and to be able to effectively communicate this understanding through the use of jazz idioms and improvisation. Students will achieve an advanced level of proficiency on an instrument while developing creative and artistic expression.

VP170 Marching Band/Wind Ensemble

Pending UC approval. This is an 8th-period course.

This course is designed to introduce the student to a variety of styles used in marching band. This course will expose and develop the student's knowledge and understanding of basic theory, instrument practice, and technique, both in an ensemble setting and in an individual practice setting. In addition, students will learn both the physical and mental types of marching routines in relation to the style of music.

VP210 Theater Arts 2

Pending UC approval.

Prerequisite: Theater Arts 1. This course is designed for students who are interested in further study in Theater Arts. Instruction is designed to include the study of various genres of theater literature, further development of the craft of acting, and in-class performance projects including directing and design as well as further development of the technical aspects of theater production and production assistance.

VP220 Intermediate Band

Prerequisite: A minimum grade of B in Beginning Band. Intermediate Band is year-long course open to students with previous instrumental music experience and who already know how to read music. Students will participate in pep band, marching band and concert band performances. Students are required to attend private or semi-private sectionals/lessons on a regular basis. In addition, students will have individual opportunities to participate in optional events like Solo and Ensemble Contest, IMEA and the Conference Music Festival. Attending all full band performances is a course requirement. Members will also practice marching techniques and music to be used in performances at football games and parades. Members will be expected to attend rehearsals outside of regular class time.

VP230 Animation 2

Prerequisite: Animation 1. In this course students will build upon already learned techniques in Adobe Animate CC, as well as be able to use and navigate Adobe After Effects CC, Adobe Photoshop CC, and Adobe Premiere to finalize and export their animations. Students will learn (1) further proficiency in a variety of Adobe programs, mainly Adobe Animate, and Adobe After Effects; (2) storytelling, storyboarding, and character design in Pre-Production; (3) animation using a combination of keyframes, tweens, and background layouts to tell a story in Production; (4) editing and adding sound and special effects to their story in Post-Production and (5) how to critique and offer constructive advice when viewing final animations.

VP250 Drawing & Painting

Prerequisite: Exploring Art. The intent of this course is to adhere to the National Core Arts Standards: Artistic Processes and Anchor Standards. Students will be creating artistic ideas and works, performing, presenting and producing their artistic ideas, responding through critical analysis, and connecting their artistic ideas to external contexts - societal, cultural and

historical. Students develop not only their ability to draw and paint assigned subject matter, but more importantly, their powers of observation and interpretation. They develop their skills in creative problem-solving, learning to turn "mistakes" into important opportunities for self-discovery and produce fine art that expresses their own unique visions.

VP350 Advanced Drawing and Painting

Prerequisite: Minimum grade of B in Drawing and Painting. This course offers opportunities for the student-artist to further investigate observation and representation of form in space, figure drawing, and technical interpretation. This course further explores the medium of drawing and challenges the student to expand his creativity in form, idea, concept, materials and techniques. Mediums to be used: charcoal, pastel, colored pencils, and conte crayon. [One Semester] (Prerequisite: Minimum "B" in Drawing)

VP360 Media Production

Media Production is designed for students interested in the digital arts. Students will focus on the three components of filmmaking (pre- production, production, post-production). Students will be introduced to the creative elements and technical skills necessary to produce high quality media (script writing, storyboards, camera work, lighting, sound, editing, etc.) that enables students to convey their own unique point of view. Students will alternate between roles as director, producer, editor and other various roles which will enhance the student's understanding of how to create high quality media.

VP370 Photography/Yearbook

Prerequisite: Teacher Recommendation. Students in Photography/Yearbook will develop and expand their knowledge and skills in producing both artistic and commercial photographs using digital DSLR cameras and equipment. Students will learn how to set the camera controls to create specific effects with the cameras, for example lighting control and emphasis. Students will learn digital imaging using Photoshop Elements to enable them to edit and manipulate digital images. Students will create page layouts, and write copy, captions and stories which will be combined with their photographs for special assignments and publishing materials including the high school yearbook.

VP380 Ceramics

Prerequisite: Exploring Art. Ceramics provides all students with an opportunity for creative expression and cognitive development in a nonverbal way. Students will learn about the history of ceramics and will create sculptural and functional pieces. Students will critique their work and plan out elaborate projects. Students will fully participate in every class and do their part in keeping a clean learning environment. Assessment is based on effort and improvement regardless of entry-level skills or personal aptitude.

World Languages

20-unit graduation requirement

All courses are UC-approved and satisfy UC and Cal State application requirements.

WL100 Spanish 1

Provides practice in listening for comprehension and speaking. The student learns vocabulary related to home, school and community. The student will practice pronunciation, intonation and use of basic language structures in both oral and written exercises. The course develops appreciation for the customs and traditions of Spanish-speaking people both within the United States and abroad.

WL110 Spanish 1 for Heritage Speakers

Prerequisite: Passing grade on the Heritage speaker placement assessment. A year-long course designed to fulfill the needs of home speakers of Spanish. The course builds upon the knowledge; skills and experiences students bring to the Spanish classroom. Attention is given to the skills of reading, writing, grammar, listening and speaking. Students are given ample opportunities to express themselves in speech and writing.

WL200 Spanish 2

Prerequisite: Spanish 1. Reviews the subject matter presented in Spanish 1 and provides further practice in comprehension, speaking, oral reading and writing. Language structures appropriate to this level are covered and correct pronunciation and intonation are further developed. The course further develops appreciation of the culture, customs, geography, history and traditions of Spanish speaking people throughout the world.

WL210 Spanish 2 for Heritage Speakers

Prerequisite: Spanish 1 for Heritage Speakers. This course provides further practice in listening, speaking, reading and writing for the speakers of Spanish. The meaningful and personalized activities motivate students to improve the quality of language they produce. The course focuses on reading development, formal grammar, general facility in composition and conversation.

WL350 Spanish 3

Prerequisite: Spanish 2 or Spanish 2 for Heritage Speakers. Further develops aural-oral facility through more varied listening and speaking activities. Grammatical concepts are reviewed and analyzed, while vocabulary development and proficiency skills are fostered in conversational settings. In addition, there is appreciation of Hispanic culture.

WL355 Spanish 3 Honors

Prerequisite: A in Spanish 2 or minimum grade of B in Spanish 2 for Heritage Speakers. This course is designed to prepare students for the AP Spanish Language and Culture class. The course includes expansion upon previously learned grammar as well as new advanced concepts, vocabulary study, and extensive use of all modalities in interpretive, interpersonal and presentational contexts. The continued study of culture from Spanish-speaking regions will occur through the use of literature and other authentic sources (music, audio sources, video, articles, etc). The class will be taught almost exclusively in the target language and students will be expected to use the target language as well.

WL4500 AP Spanish Language and Culture

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Spanish 3 OR minimum grade of B in Spanish 2 for Heritage Speakers OR minimum grade of B in Spanish 3 Honors. A college level course in advanced Spanish composition and conversation. It emphasizes aural/oral skills, reading comprehension, grammar and composition. Students in this course take the AP Exam in May with the possibility of receiving college credit and/or placement.

WL4600 AP Spanish Literature and Culture

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: Minimum grade of B in AP Spanish Language and Culture. A college level course that covers selected authors from the literature of Spain and Spanish America and centers on the understanding and analysis of literary texts. The class enhances students' proficiency while developing their ability to analyze texts and communicate ideas through discussion and writing. Students in this course take the AP Exam in May with the possibility of receiving college credit and/or placement.

WL140 French 1

Provides practice in listening for comprehension and speaking. The student learns vocabulary related to home, school and community. The student will practice pronunciation, intonation and use of basic language structures in both oral and written exercises. The course develops appreciation for the customs and traditions of French-speaking people both within the United States and abroad.

WL240 French 2

Prerequisite: French 1. Reviews subject matter introduced in French 1, and provides further practice in comprehension, speaking, oral reading and writing. More advanced language structures are practiced and correct pronunciation and intonation are further developed. The course introduces reading for direct comprehension without translation, writing adapted dialogues, narratives and dictation. The course continues to develop appreciation for the French culture and customs.

WL380 French 3

Prerequisite: Minimum grade of B in French 2. Further develops aural-oral facility through more varied listening and speaking activities. Grammatical concepts are reviewed and analyzed, while vocabulary development and proficiency skills are fostered in conversational settings. In addition, appreciation of French culture continues to be fostered.

WL130 Latin 1

This course is an introduction to Latin, in this course students will read, write, listen and speak Latin. The focus of this course is reading comprehension and the aim of the first two years of Latin is to prepare students to read authentic Latin literature, both prose and poetry. Using the Cambridge Latin Course and other dynamic stories, students will recognize syntax in a natural way, as opposed to the grammar/translation method that is so often used in a Latin class. Students will also compose Latin plays, and computer generated slideshows, and recite Latin through dramatic reading. In short, students will read, write and summarize written Latin at a basic level.

WL230 Latin 2

Prerequisite: Latin 1. The stories in this course will begin in Roman Britain with the Salvius family, but eventually, the characters will end up in Alexandria, Egypt. This will give scholars exposure to Roman imperialism and allow them to experience life in the Roman Empire outside of the city of Rome. At the end of the year, the scholars will follow Julius Caesar to Gaul (the area now known as France) as he attempts to conquer and colonize that region. Leading up to their experience reading Caesar in his original Latin, scholars will learn all the grammar necessary to do so, including the Subjunctive Mood,

Participle Phrases, Indirect Speech, and the many uses of the Ablative Case.

WL230 Latin 3 Honors

Prerequisite: Minimum grade of B in Latin 2. This course will teach students how to interact with Latin in a critical manner. Scholars will focus primarily on prose from Latin of the Classical Age, but will be exposed to a wider variety of texts extending to Medieval Latin and poetry. As they read, scholars will increase their vocabulary through the readings and the use of biweekly vocabulary checks. Scholars will focus their readings on how the text focuses on the needs of the audience and articulate the differences between the manner in which the language is presented. To aid their own analysis, scholars will be given opportunities to learn the philological language of academia, learn the historical context, and practice writing and speaking Latin of different genres. This course will focus on interacting between the scholars among themselves, the text, and a larger, historical worldview. They will additionally complete a combination of a final exam based on the readings of the entire year and a final project. The final project will require a comparison of two of the texts from different eras or genres and an explanation of how they accomplish their goals differently. Students will demonstrate an understanding of why the language is different in each and how it is relevant to the text's audience.

WL120 Mandarin Chinese 1

This course provides a well-balanced foundation to the Chinese language, with practice in listening for comprehension and in speaking. The course will cover introductory grammatical structures and the appropriate vocabulary for conversing at home, school and in society. The student will learn to write in Chinese characters. Oral and written exercises will assist in the acquisition of basic language structures. Furthermore, this course will introduce Chinese culture and society, giving emphasis to its role in Asia and in relation to the United States.

WL220 Mandarin Chinese 2

Prerequisite: Mandarin Chinese 1. Reviews subject matter introduced in Mandarin Chinese 1, and provides further practice in comprehension, speaking, oral reading and writing. More advanced language structures are practiced and correct pronunciation and intonation are further developed. The course introduces reading for direct comprehension without translation, writing adapted dialogues, narratives and dictation. The course continues to develop appreciation for the Chinese culture and customs.

WL360 Mandarin Chinese 3

Prerequisite: Mandarin Chinese 2. Mandarin 3 takes students to a higher level of aptitude in the target language. Building on skills obtained in the previous two years, students continue to expand on their ability to conduct a variety of real-life conversations using more authentic vocabulary and oral expression. They also focus on becoming more fluent and improving their pronunciation and tones. Through more advanced writing and speaking assignments, students learn and practice more complex syntax and grammar structures and express thoughts in an authentic and polite manner. Students hone their ability to speak spontaneously, summarize readings, and express their opinions by conducting more advanced discussions on topics such as Chinese cuisine, tipping, living environments, shopping, travel, course choice, education, and job searches.

WL4700 AP Chinese Language and Culture

Note: All students enrolled in AP classes are required to take the AP exam given in May. Exams require a nonrefundable fee during the early part of the second semester.

Prerequisite: A in Mandarin Chinese 3. The main course objective for AP Chinese Language and Culture is to refine and further develop students' abilities with spoken and written communication in Chinese. We use the textbook *Beyond the Basics*, articles from Chinese newspapers, and multimedia resources such as CDs, DVDs, online materials, etc. The AP Chinese

course also expands what students know about Chinese culture and provides them with an introduction to ancient Chinese literature. Texts include Gateway to the Chinese Classics and Chinese Breakthrough: Learning Chinese Through TV and Newspapers, as well as articles from Chinese newspapers and teacher handouts. Students in this course take the AP Exam in May with the possibility of receiving college credit and/or placement.

Non-Departmental

All courses are UC-approved and satisfy UC and Cal State application requirements unless otherwise indicated.

ND350 Internship

This course does not meet UC, CSU, or NCAA requirements.

Prerequisite: Limited spaces. Open to senior students with multiple Honors/AP classes or with special circumstances. Requires the approval of the Director of Counseling. This course provides practical on-the-job experiential training in basic office procedures, etiquette, manners and practices. Proper business office attitudes are stressed. Limited spots are available. Grading is Pass/Fail.

ND400 Academic Decathlon

The Academic Decathlon course will provide students with a rigorous and diverse learning experience that spans many academic disciplines. Students will be asked to deeply research and study topics in at seven academic areas: language, music, art, economics, science, social studies and math. They will also study and participate in performance activities of speech, essay writing and interviewing. Students will develop research skills, critical thinking skills and inference abilities and, as a team. Students should expect to spend after-school hours and weekends for preparation. The class will compete in the Southern California Private Schools Academic Decathlon and World Scholar's Cup.