



2015 – 2016 FALL SEMESTER COURSE DESCRIPTIONS

St. Paul Preparatory School

Study in a challenging yet nurturing academic environment

Please Note: All courses are two semesters, except where noted. The academic needs and abilities of each student will be evaluated on an individual basis. Courses for which no grade level is listed are open to students in more than one grade. Course offerings are subject to change. Classes may be added if necessary or cancelled if they do not meet minimum enrollment requirements.

Not all courses will be offered during the 2015-16 school year.

Language Arts

Advanced English Composition

This course prepares students for college level writing and critical thinking. Students write four major essays and practice timed essays. They will also further develop and refine expression of ideas through revision and gain an awareness of language while working to eliminate grammar and spelling errors through careful proofreading. Research methods and MLA documentation are also studied. Reading and discussion is an integral part of this course to allow students to examine their own writing as well as that of others.

English Composition

This course emphasizes the planning, developing and revising of the five paragraph essay which is essential to academic writing. Students practice the writing process while exploring correct forms for topic sentences, transitions and thesis. Students are encouraged to write essays involving more complex thought processes. Revising rough drafts of essays is practiced throughout the course.

Speech (one semester)

Speech class introduces students to the basic concepts of speech communication, as well as giving instruction in public speaking. Students gain confidence and expertise as they practice delivering short speeches and longer presentations. Students interact with various elements of the English language, including vocabulary, diction, vocal intonation, and pronunciation. Intercultural communication and small group communication are also explored. Students gain helpful experience through classroom exercises such as interviewing for college entrance, applying for job opportunities, and participating in panel discussions.

AP English Literature and Composition

Advanced Placement (AP) English Literature & Composition is a college-level English course with a focus on pushing deeper and more critical analyses of texts (novels, short stories, poetry, drama, non-fiction essays, etc.). Course texts, which are of recognized literary merit and complexity, represent a variety of genres, time periods, themes, and styles. Analyzing texts for how their rhetorical devices create meaning – accomplished through deliberate, close reading – is an essential skill that will developed throughout the year. In addition to developing sophisticated reading skills, students will expand upon and hone their analytical writing skills, with special attention given to composing literary analyses. Literary analyses will require students to argue for a specific interpretation texts through theses that are well-supported by specific text evidence and are logically organized. In order to be successful in a college-level course, students will need advanced English skills, learners' dispositions, positive attitudes, and willingness to commit considerable time and effort. Students may earn college credit by passing CollegeBoard's AP English Literature & Composition exam in May 2015.

Creative Writing

In this course, students develop their creative and expressive writing skills. Exercises and assignments in each of the main literary genres—creative non-fiction, poetry, fiction, and drama—will help students discover their voice and tone while expanding vocabulary, building awareness of audience, and refining flow, context, meaning, and sentence variation. Creative writing will promote critical thinking and help students refine communication skills which will aid students in writing more interesting essays, enhance their success in other classes, set them apart in college applications as they continue on in the world of academia.

World Literature

In this course, students will study literature from around the world. Students examine short stories, novels, plays, poetry, and nonfiction within a historical and cultural context. Students take part in group discussions, class seminars, write essays, and deliver speeches to demonstrate their growing understanding of the relationship between local concerns and universal questions, of the manner in which geography and culture can influence form, and world views of literature itself. Class discussions also encourage students to express opinions and support individual ideas from their readings.

American Literature

Students read selected short stories, novels, plays, and poetry from the United States (together with samples from the Americas) from the early beginnings of the country through contemporary literature. Historical forces impacting the literature as well as the regional influences are examined. The development of critical thinking and vocabulary building along with writing skills are emphasized.

Intro to Literature (Elective)

Students are introduced to a variety of literary texts with particular emphasis on developing reading comprehension strategies: short stories, nonfiction, novels, poetry, and drama. Language study includes a focus on building and using academic vocabulary to read, write, and speak English at a more advanced level while working to improve grammar and mechanics through frequent and varied writing assignments.

Speaking and Listening I and II (Elective 9th, 10th)

(ENTRANCE SCORE CRITERIA: W-APT SCORE OF 1 OR 2 IN SPEAKING) In this course, students will practice speaking and listening skills both in academic and non-academic contexts. Students will work on core elements of the spoken language such as sound distinctions that convey information about grammar as well as rhythm, stress and intonation in order to increase their intelligibility. Students will listen to spoken passages and conversations in order to infer main ideas through context, and summarize what they hear in their own words. Students will practice conversations and role-plays on familiar topics while increasing their vocabulary.

Speaking and Listening III (Elective 9th, 10th)

(ENTRANCE SCORE CRITERIA: W-APT SCORE OF 3) This course is a continued development of skills started in Speaking and Listening I and II. Students will apply these skills in both academic and non-academic contexts. Some of these concepts include: listening for main idea and detail, engaging in discussion appropriately, using a range of words and using phrases accurately. At the end of each unit, students will demonstrate their learning through an authentic project.

Professional Communication (Elective 11th or 12th grade)

According to a recent *Forbes* article, the most important skill to have in the workplace is communication. Whether you would like to manage your own business, analyze a company's finances, or conduct research in a science lab, communication will be vital to your success. In this course, students will learn about the concepts and techniques of communication in the professional setting, from writing a formal business letter to creating a resume to giving an informative presentation. The course will require students to engage in authentic, real-world situations that require appropriate and effective communication.

Intro to Writing (Elective 9th grade)

(ENTRANCE SCORE CRITERIA: W-APT SCORE OF 1-3 IN WRITING) Students acquire and develop writing skills needed for academic study at the high school level. In this course, students develop punctuation, capitalization and grammar skills in order to construct complete sentences of varying length and complexity. Students begin revising and editing their own writing and identifying errors in that of others in order to achieve greater accuracy and fluency. By the end of the course, students will be able to write paragraphs around a clear main idea for a variety of purposes and produce a three paragraph essay. Students will also use basic annotation to examine short readings and write reading responses.

Film Analysis: American Film as Readable Text (Elective 11th, 12th)

Much like authors use rhetorical devices like metaphor and symbolism to create meaning, filmmakers use cinematic devices like light, sound, and angle to create meaning. As such, film – rather than being a form of media that is simply passively consumed – is in fact a readable “text.” We will study film techniques and devices through four genre-based units: comedy, drama, horror, and the musical. Within each genre, we will focus on one mentor film and supplement with short clips that demonstrate representative techniques and sub-genres. These four genres will provide the foundation for learning, discussing, and writing about the language of film, i.e. the techniques that filmmakers use to create meaning.

Mathematics

ALL MATH COURSES AT THE LEVEL OF ALGEBRA 2 AND ABOVE REQUIRE THE USE OF A GRAPHING CALCULATOR. THE SCHOOL PROVIDES INSTRUCTION ON CASIO GRAPHING CALCULATORS. THE SCHOOL RECOMMENDS THE CASIO 9860GII, 9860G SLIM OR THE 9750 WILL MEET MINIMAL REQUIREMENTS. AT PRESENT, THE CASIO CLASSPAD 330 IS BANNED FROM USE ON ALL STANDARDIZED TESTS (SAT, ACT, AP TESTS). APPROPRIATE CALCULATORS CAN BE RENTED BY THE STUDENTS FOR A SMALL FEE.

Accounting (one semester)

This one semester course is designed to introduce students to the standards and rules of Financial Accounting, including the accounting equation, credits and debits, T accounts, posting to a general ledger, and the effects of transactions on liabilities, assets, and owner's equity. Emphasis will be placed on recording and reconciling business transactions according to generally accepted accounting principles (GAAP), as well as preparing income statements, cash flows statements, and balance sheets. Initial focus will be on service businesses, with discussion of merchandising businesses as time and student interest allow.

Algebra I (per skill level)

This course includes the study of rational numbers, equations and inequalities, relations and functions, linear functions and their graphs, systems of equations and inequalities, polynomials and factoring, quadratic and exponential functions and data analysis and probability. Problem solving and applications will be emphasized throughout. Technology is used where appropriate.

Geometry (per skill level)

NOTE: ALGEBRA I USUALLY PRECEDES THIS COURSE.

This course includes an analytical approach to geometry, inductive and deductive reasoning, methods of proof, lines, angles, triangles, polygons, circles, area, volume, similarity, trigonometry, transformations and probability. Problem solving and applications will be emphasized throughout. Technology is used where appropriate.

Algebra II (per skill level)

NOTE: ALGEBRA I AND GEOMETRY USUALLY PRECEDE THIS COURSE.

This course expands on the topics introduced in Algebra I. Functions, inverses, composite functions, and transformations are introduced. Introduces the concepts of higher degree polynomials, and logarithmic and exponential functions. Probabilistic and statistical concepts are introduced and explored in addition to trigonometric functions. Problem solving activities, connections between algebra, trigonometry and other areas of mathematics as well as real world applications will be explored. The class will introduce students to the use of a graphing calculator – see the note above. Students will be instructed in the use of the calculator and are expected to use it in completing portions of the homework, class work, tests and quizzes. Technology is integrated throughout.

Business Math (one semester)

Business Mathematics is a one semester course in which students learn to use mathematics effectively as a tool in their personal and business lives. It is required as part of the International Business Program. After students have completed this course, they will be able to apply mathematical concepts in various personal and business situations. The course includes a review of basic business math skills with particular emphasis on percentages, interest, discounts, arithmetic of payroll, taxes, bank statements, reconciliation, trade and cash discounts, establishing retail prices, consumer credit, simple interest, compound interest, annuities, and business and consumer loans.

Pre-Calculus (per skill level)

This course is designed to prepare students for a course in Calculus and is recommended for students who are above average in mathematics. THE CLASS IS STRONGLY DEPENDENT ON CALCULATOR USE – see the note above. Students will be instructed in the use of the calculator and are expected to use it in completing homework, class work, tests and quizzes. Topics covered include equations and inequalities, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometry, trigonometric identities, analytic geometry, 3-dimensional functions, matrices, statistics and probability, and (if time permits) an introduction to limits. Technology is fully integrated throughout.

AP Statistics (per skill level and permission of instructor)

NOTE: YOU MUST HAVE SUCCESSFULLY COMPLETED ALGEBRA 2 OR HIGHER MATH CLASS

This course is designed to cover the four main topics on the AP Statistics exam: exploratory data analysis, planning and conducting a study, probability, and statistical inference. Topics will include: categorical and quantitative data, proportions, one sample means, matched pairs means, regression analysis, z-test, t-test, chi square test, z-intervals and paired t-tests, amongst others. This course requires the use of a graphing calculator. This class is not as calculation rich as our other math offerings since the calculator or computer does most of the tedious calculations. Your job will be to understand which statistical procedure to apply and how to interpret the results. NOTE: STUDENTS TAKING THIS COURSE MUST TAKE THE AP CALCULUS EXAM IN MAY.

AP Calculus AB (per skill level and permission of instructor)

Students intending to take the AP Calculus AB course should have completed courses in which they have studied algebra, geometry, trigonometry, analytic geometry and elementary functions. These functions include those that are linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise defined. Students need to be familiar with the properties of functions, the algebra of functions, and the graphs of functions. Students should also have some understanding of the language of functions – domain, range, periodic, symmetric, zeroes, intercepts, etc., - and know the values of the trig functions for $0, \frac{\pi}{6}, \frac{\pi}{4}, \frac{\pi}{3}, \frac{\pi}{2}$, and their multiples. This course requires the use of a graphing calculator. Students will be instructed in the use of the calculator and are expected to use it in completing homework, class work, and on the AP test. The course covers topics that will be tested on the AP Calculus AB exam – functions, graphs and limits, continuity, derivatives at a point and as a function, related rates of change, properties of integrals, Fundamental Theorem of Calculus, techniques of anti-differentiation, numerical approximations to definite integrals including trapezoidal and Simpson's rule, and the application of integration and differentiation to real world problems. Further topics may include L'Hopital's rule, Taylor and Maclaurin series, polar integration. NOTE: STUDENTS TAKING THIS COURSE MUST TAKE THE AP CALCULUS EXAM IN MAY.

AP Calculus BC (spring semester only - permission of instructor)

This is a one semester course that is intended to be taught to students who have successfully completed (or are currently taking) AP Calculus AB. The student should have a familiarity with differentiation and the fundamental theorem of calculus, as well as the basics of integration, and the topics mentioned in the AP Calculus AB course description. Topics covered in BC Calculus include polar functions with their derivatives and integrals, Taylor and Maclaurin series, LaGrange error bounds, Newton's approximation, L'Hopital's rule, convergence and divergence of series, and lengths of curves in Cartesian and Polar coordinate systems. NOTE: STUDENTS TAKING THIS COURSE MUST TAKE THE AP CALCULUS BC EXAM IN MAY.

Academic Math Support

This class is designed for students who need additional support outside their regular math class in order to succeed. It is not an additional math class, but will be individualized for each student to be successful in their current math class. The teacher will work closely with the primary math teacher to ensure homework assignments are completed and understood in addition to helping students to prepare for upcoming tests.

Science

Physical Science

Physical science is the study matter and energy. This year-long course serves as an introduction to chemistry and physics. It is divided into 12 units: Scientific Skills; Matter; Atoms and the Periodic Table; Compounds and Molecules; Chemical Reactions;

Solutions; Nuclear Changes; Motion; Forces, Work, and Energy; Heat and Temperature; Waves, Sound, and Light; and Electricity and Magnetism.

- Relate the properties of an element to the structure of its atoms, including radioactive isotopes by creating atom models.
- Describe key experiments in the historical development of the atomic model by writing and illustrating a flip-book.
- Calculate current, voltage, and resistance, and describe energy transfers, in simple electric circuits by performing data analysis on experimental results.
- Describe a chemical reaction using words, equations, and pictures.
- Predict an object's motion based on its mass and the forces acting upon it by drawing vector diagrams.
- Compare and contrast fission and fusion in terms of reactants, products, and the conversion of matter into energy by creating a Venn-diagram.
- Evaluate the advantages and disadvantages of generating electricity using various sources of energy by presenting the benefits and shortfalls of each type.
- Apply the law of conservation of mass by justifying experimental results and balancing chemical equations.
- Compare and contrast technologies in terms of energy efficiency and natural resource use by analyzing electronic packaging data.
- Generate unique examples illustrating Newton's three laws of motion by creating student videos.

Aerospace Engineering (one semester)

Aerospace Engineering is a one semester course that ignites students' learning in the fundamentals of atmospheric and space flight. Aerospace Engineering is a specialization course in the Project Lead the Way (PLTW) Engineering program. The course deepens the skills and knowledge of students within the context of atmospheric and space flight. Students explore the fundamentals of flight in air and space as they bring the concepts to life by designing and testing components related to flight such as an airfoil, a propulsion system, and a rocket. They learn orbital mechanics concepts and apply these by creating models using industry-standard software. They also apply aerospace concepts to alternative applications such as a wind turbine and a parachute. Students simulate a progression of operations to explore a planet, including creating a map of the terrain with a model satellite and using the map to execute a mission using an autonomous robot.

Biology

In this two semester course, students will learn the study of life in the context of past, present and future. A primary emphasis will be placed on the scientific method, research techniques and presentation of scientific material.

- Identify biological questions and problems that can be answered through scientific investigations.
- Design and conduct scientific investigations to answer biological questions.
- Investigate and describe the structure and function of cells.
- Investigate and analyze the bioenergetics' reactions.
- Analyze the molecular basis of heredity.
- Interpret and predict the patterns of inheritance.
- Assess the impact of advances in genomics on individuals and society.
- Examine the development of the theory of evolution by natural selection.
- Develop an understanding of the unity and diversity of life.
- Understand the hereditary and evolution of humans
- Explore the human anatomy and the purposes of major organ systems.

Chemistry

Chemistry is the study of the principles of matter and the changes that matter undergoes. In the fall semester, students will develop scientific skills as they explore atomic structure, the periodic table, chemical bonding, chemical formulas and compounds, and chemical reactions. In the second semester, students will study stoichiometry, gases and phase changes, solutions, kinetics and equilibrium, acids and bases, and organic chemistry.

Physics

Physics is the study of the relationships between matter and energy. In the fall semester, students will develop scientific skills as they study kinematics, forces, the laws of motion, work, energy, momentum, collisions, rotational motion, and gravity. In the second semester, students will investigate temperature, heat, waves, sound, light, electricity, circuits, and magnetism.

AP Chemistry

Students enrolling in AP Chemistry must have completed the equivalent of a full academic year of both General Chemistry (including some exposure to the chemistry laboratory) and Algebra II. The AP Chemistry course is equivalent to a first-year college chemistry course intended to prepare the students for the AP chemistry exam in May. Students must keep a laboratory notebook and portfolio of lab reports in order to track lab techniques and skills. The course will emphasize inquiry based and quantitative problem solving, hands-on laboratory experiences, and written laboratory reports. Students should have demonstrated proficiency in Algebra II, as well as introductory chemistry classes in order to enroll in AP chemistry. Topics include, but are not limited to thermochemistry, equilibrium and gas laws. *This course is offered on a rotating basis.*

AP Biology

Students enrolling in the Advanced Placement course in Biology should already have a firm command of basics such as osmosis, photosynthesis, oxidative metabolic pathways, structure-function relationships, ecology, and particularly, genetics. Twelve laboratory exercises emphasize those areas of life science deemed most important by the writers of the AP examination, and students must complete all twelve laboratories, without exception.. Success on the AP exam depends on developing a style of expression (both in writing and graphing) which conforms to the expectations of AP readers.

AP Environmental Science

AP Environmental Science (APES) is intended to meet the requirements of the College Board and prepare students for the APES exam in May. The course mirrors a first year, college-level Environmental Science class. Students will be involved in field science projects where they collect data to analyze water quality of the Mississippi River, as well as survey the energy efficiency of their homes. Congruently, students will learn different data collection and analysis techniques and principles of Environmental Science. The course will provide students with understanding of the interrelationships of the natural world, drawing upon various scientific disciplines such as water chemistry, ecology of various ecosystems, and land management. *This course is offered on a rotating basis.*

Robotics

This class is designed for motivated students who desire to advance their scientific knowledge, and apply it to real life situations. Robotics is a full year class that works toward participation in the FIRST Robotics Competition. FIRST is a great way for students to enhance their science education and participants are recognized as superior students in college applications. Robotics requires extensive, out of class work. We will discuss as a team, the outside of school meetings closer to the competition. Students will be assessed using daily participation, journaling, and presentations. Students in robotics will learn real life skills to help expand their knowledge in future technological communities.

Project Lead The Way: Principles of Engineering

Through problems that engage and challenge, students explore a broad range of engineering topic, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. The course covers topics in fluid dynamics, statics, electrical circuits, control systems, and includes a basic introduction to computer programming through RobotC platform. Many of these topics are explored through project based learning, with students completing open ended projects and constructions to demonstrate their knowledge and understanding. Students are also expected to write a paper exploring a particular career interest within engineering.

Social Studies

American Government (one semester)

This course is designed to introduce students to the basic structure of the US government and how each student can participate in government, whether here in the US or abroad. The course will cover the Constitutional underpinnings of the origins of US government; the political beliefs and values that support American government; our civil rights and civil liberties; and the role that political parties, interest groups, political institutions, and the media play in forming political decisions. We will furthermore discuss core American values of equality, liberty, and self-government through a variety of projects that will give students a first-hand look at how change is made through established political systems. The course will culminate in a final project wherein students will create a plan of action on an issue important to them.

AP Government & Politics (one semester)

This course, designed to follow the AP curriculum and to explicitly prepare students to take the AP exam, will introduce students to the political values and beliefs of the American system and establish how different individuals, groups, and institutions work in tandem to operate the US government. Because this is an advanced placement course and, therefore, a college-level course, students will be required to complete a substantial amount of reading and preparation for every class. The course will cover the Constitutional underpinnings of the origins of US government; the political beliefs and values that support American government; our civil rights and civil liberties; and the role that political parties, interest groups, political institutions, and the media play in forming political decisions.

Comparative Government (one semester)

Comparative Government is a class designed to give a student the skills and knowledge to understand governmental systems around the world and how they interact. The goal of the class is for the student to develop the skills necessary to become a responsible participant in the global community. The course will focus on: comparative politics, political institutions around the world, how countries exercise 'power,' sovereignty, and socioeconomic change. The student will focus on both international and national public policy. Assessment, for the class, will include: tests, essay tests, quizzes, projects, mock trials and international summits, and a Ted Talk style presentation. Overall, this class is designed for the empowerment of students; their speaking, listening, and deliberation skills will be the focus for the individual growth of each student.

Human Geography (one semester)

This one semester class will introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alterations of the Earth's surface. By looking at the relationships between cultural groups and their physical geography it is possible to find relationships that allow geographers to understand better how humans are shaped by their physical world, and change it in turn. We will be looking at different cultural phenomenon such as language, religion, government, and economic systems in order to make connections between different cultural set and how they interact with one another. This course is designed to increase the students' understanding of the world and develop their critical thinking skills.

World History

This course is a survey of world events from the early beginnings of civilization over 3 million years ago through those of the modern world. Themes addressed in every unit include those aligned with geography, economics, government, citizenship, culture, science, and technology. In addition, such important concepts as the development of constitutionalism and global relations are examined. A variety of methods will be used to measure student learning, such as quizzes and tests, analysis of primary source documents, research projects and group activities.

U.S. History

The intended outcome of this year-long course is to provide students with a basic understanding of the political, economic, and social history of the United States. Key U.S. periods of history will be covered in-depth. During the first semester, the major emphasis will be on the early exploration and colonization of North America, the Revolutionary War, Nation-building, and the Civil War and Reconstruction. The emphasis during the second semester will be on America's evolving political and social history at the turn of the century, through the Roaring Twenties, the Great Depression, World Wars I and II, the Cold War era, and post-war modern America. Students will use primary source documents such as speeches and personal narratives to help explain history in a more personal and honest manner. Students will investigate history through a variety of methods, including lecture and discussions, textbook and supplemental readings, map activities, research projects, and essay writing. Students will be encouraged to participate in class discussions, while working to improve their speaking, reading, writing, and critical thinking skills.

AP U.S. History (per skill level)

This course, designed to follow the Advanced Placement curriculum and to explicitly prepare students to take the AP exam, will introduce students to the political, economic, military, and social history of the United States of America beginning with prehistoric North America and continuing to present day. During the course of study, students will examine important themes of U.S. History, diverse cultures within the U.S., as well as key and critical events and periods of U.S. history. Each unit will be comprised of a variety of historical investigations wherein students will engage in answering a historical question through the investigation of historical evidence. Students will be expected to maintain a rigorous learning schedule, which will include reading a minimum of 50 pages a week, completing a terms list, and completing a quiz for each chapter of reading assigned.

AP World History (per skill level, alternating years)

Advanced Placement World History is a year-long course that will offer students a rigorous and challenging study of world history. The course will take a thematic approach to history but will bring attention to political, economic, cultural, and social patterns that emerge from civilizations over time. Students will be challenged in their learning by reading, analyzing, and discussing primary source documents, as well as conducting research. Emphasis is placed on developing critical thinking skills. A variety of assessments will be used, but the focus will be on historical and comparative writing. *This course is offered on a rotating basis.*

AP Human Geography

This year long class will introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alterations of the Earth's surface. By looking at the relationships between cultural groups and their physical geography it is possible to find relationships that allow geographers to understand better how humans are shaped by their physical world, and change it in turn. We will be looking at different cultural phenomenon such as language, religion, government, and economic systems in order to make connections between different cultural set and how they interact with one another. By examining maps and other geographical tools students will examine correlations between the physical and human world and the interactions that have shaped our planet and human life. This course is designed to increase the students' understanding of the world and develop their critical thinking skills. Upon completion of this course students will be given the opportunity to take the Advanced Placement test for the possibility of college credit.

AP European History Class

PRE REQS: WORLD HISTORY (OR TAKEN ALONG WITH WORLD HISTORY) AP European History is an in-depth survey of Europe History from the High Renaissance (about 1050) up until the present era. Advanced Placement classes are the equivalent of a freshmen or sophomore level university class, and are designed to challenge the students with complex concepts and strenuous workloads. The course will examine the Social, Political, Intellectual, Economic, and Cultural developments of Europe over the course of the modern era. Special emphasis will be placed on the formation of states and the gradual unification of territories to form the countries and organizations (like the European Union) that we see today. *This course is offered on a rotating basis.*

Economics (one semester)

The goal this one semester Economics course is for the student to demonstrate an understanding of basic economic concepts. Students become familiar with the economic systems of the world, with a focus on the economic system of the United States, and how they operate. By examining different economic systems students will be finding out how different economic systems operate and what impact they have on the people. Students will examine their roles as consumer, worker, investor and voting citizen. Topics of discussion include the Stock Market, comparative economic systems, and the impact of political and social decisions on the economy.

AP Macroeconomics

AP Macroeconomics is a year-long, introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

AP Microeconomics

In this year-long, college-level course, students will gain a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Students taking this class will have the opportunity to participate in the AP Exam during the month of May; if a student gains a score of 3 out of 5 or higher many universities and colleges will allow the student to skip that course during their post-secondary studies. Additional study sessions outside of school will be offered as the test approaches in order to assist students in their preparation.

Sociology (one semester)

Sociology is essentially the study of Human behavior and Social Structures. In this one semester class we will examine social phenomenon from an academic perspective looking for patterns of social interaction and how those interactions influence human

behavior. Through a variety of methods students will explore different sociological ideas from an educative perspective in order to develop their own social perspectives and critical thinking skills.

Applied Psychology (one semester)

Applied Psychology is a survey of psychological concepts and theories that students can directly apply to their everyday lives. Our focus will revolve primarily around personal adjustment and cover topics such as effects of stress, memory formation, interpersonal relationships, and strategies for changing behavior.

Introduction to Business (one semester)

This course is designed to familiarize students with the activities generally associated with a business. Students will gather a basic understanding of general business, economics, entrepreneurship, business communications, business ethics, the government's role in business, marketing, and business finance. Overall, the course gives students a broad exposure to business operations and a solid background for additional business courses that are a part of the International Business Certificate at St. Paul Prep. Guest speakers from the business community will provide students with real-world examples and application of the concepts learned in this class. Internship opportunities may be available during Spring Semester for interested students who complete this class.

Foreign Languages

Chinese I

This course begins the study of Chinese language and culture. Students learn about 250 characters in the areas of: introducing oneself and then communicating about one's family, countries, continents, languages, the world of work, transportation, and telling time. Students comprehend, speak, read and write (in Chinese characters). The curriculum is Chinese Made Easy (5 levels) and is aligned with the Chinese language AP exam, SAT II exam, and the IB exam. This course is designed for students who would like to learn Chinese.

Chinese II

This course continues the study of Chinese language and culture. Students learn about 500 more characters in the areas of: clothes and colors, climate and weather and vacations, hobbies and interests, school courses and schedules, the school facility, and talking on the phone in Chinese. Students comprehend, speak, read and write (in Chinese characters). The curriculum is Chinese Made Easy (5 levels) and is aligned with the Chinese language AP exam, SAT II exam, and the IB exam. This course is designed for students who have succeeded in Chinese 1 and would like to continue to learn Chinese.

Chinese III

This course continues the study of Chinese language and culture. Students learn about 700 more characters in the areas of: how we look and feel, health and physique, money and finances, diet and health, shopping and gifts, directions and maps, the household and possessions. The curriculum is Chinese Made Easy (5 levels) and is aligned with the Chinese language AP exam, SAT II exam, and the IB exam. This course is designed for students who have succeeded in Chinese 2 and would like to continue to learn Chinese.

French I

This course is intended for students with little or no knowledge of French. Through oral and written practice, students will learn to read, write, pronounce and comprehend basic French while also exploring certain aspects of French everyday life. French grammar and syntax will be looked at extensively. Special emphasis is put on communication, encouraging students to speak French with the teacher and their classmates, using English as little as possible. Students will learn everyday phrases and work toward accuracy in pronunciation. Cultural emphasis will be placed on learning about the products and customs of France. Students will be expected to create a PowerPoint presentation on a region of France at the end of the year. Students will also be exposed to basic knowledge of the francophone world and different cultural perspectives through discussion and various internet activities.

French II

Through a continued study of the French language, students will continue to improve and enhance their oral and written French. Basic concepts studied in level 1 will be reviewed and looked at in depth. French vocabulary and grammar will be expanded and students will have the opportunity to improve their French through various speaking activities and writings. While French I places an emphasis on communication this course will place emphasis on both communication and more advanced writing skills. Students will

continue to learn about various aspects of French culture and francophone countries. This course is intended for students who have had one year of French. *This course will only be offered if it is needed.*

Spanish I

This course will expose students to the Spanish language and to cultural aspects of Spanish-speaking nations through interactive, hands-on activities. Students will focus on mastering basic communication skills (reading, listening, writing, and speaking) and grammatical concepts that are the necessary building blocks of the language. Learn to introduce yourself, express your opinion, talk about your home, give and take directions, describe feelings, and much more, all in Spanish. The course will present a survey of art, literature, religions, traditional meals, dance, and music, all through the language itself, allowing students to form connections between cultures and enrich their own worldview.

Spanish II

This course will build on material mastered in Spanish I, adding more complex verb forms and building vocabulary. This course will include investigations into the lives of several significant artists, writers, and political figures from Latin America and Spain. Students will choose a topic interesting to them from those discussed in class and will conduct research for a final presentation. Students will engage in debate and discussion of contemporary issues in Spanish.

Spanish III

This course will build on material from Spanish II, adding more complex structures and building vocabulary for communicating in a variety of cultural contexts and situations. Students will continue to explore the various geographic regions in which Spanish is used, and will conduct research into the lives of several significant artists, writers and political figures from Latin America and Spain. Students will work on the four skill areas (Listening, Reading, Writing and Speaking) with a special emphasis on the productive skills (Speaking and Writing). Students will write weekly journal entries and complete several projects which could include writing and illustrating a children's book, creating and filming a commercial or scene from a telenovela or presenting research on a topic of interest. Students will engage in debate and discussion of contemporary issues in Spanish, in weekly conversation classes facilitated by students. This class gives students the opportunity to continue to explore different cultural perspectives and to make connections between cultures. This course is intended for students who have had two years of Spanish.

Visual and Performing Arts

American Popular Music (one semester)

Why is hip-hop music so popular today? Why do my parents listen to "strange" music and do not understand my music? All these questions and more will be answered as this course explores the history of 20th century American music. Students will learn the fundamentals of music, vocabulary to critically discuss music, and learn about numerous musical genres, including jazz, blues, musical theater, folk, rock and roll, soul, and hip-hop. The class will also listen to numerous American music recordings, interpret taped musical theater performances and music videos, and have the opportunity to attend a live music event.

AP Studio Art

SPP's AP Studio Art Class offers three studio art courses and portfolios all in one class: Two-Dimensional Design, Three- Dimensional Design, and Drawing. This class is for students who are seriously interested in the practical experience of art and are willing to spend a lot of out of class time creating art at the college level. There will be on average two hours of homework after each class. At the end of the school year student will submit portfolios for evaluation to nationals. The three types of portfolios consist of 2-D Design, 3-D Design, and Drawing- corresponding to the most common college foundation courses. Students need to submit a total of 24 pieces of art for their portfolio. The portfolios will be graded at the college level and scores will be sent out in June.

Art History (one semester)

This one semester covers the developments of artistic expressions from its first uses to contemporary artistic expression. Student will examine art's transition from being a form of communication, to methods of personal, religious, political, and social expression. By examining different artistic movements and trends, across space and time, students will gain an understanding of the different changes in the form and function that art has undergone. Throughout the course of the semester we will be examining Architecture, and visual (paintings and photographs) pieces from Africa, the Americas, Asia, Australia, and Europe. This one credit class fulfills the Art credit and is required for the Arts Certificate.

Book Arts (one semester)

This course will introduce students to the art of bookmaking as they create a variety of book structures. Techniques will be taught to familiarize the students with the basics of book construction; Coptic binding, pamphlet stitch, accordion fold, flag book and book alterations. Book layouts, pacing and narrative will also be discussed along with revising of written language and enhancing English writing skills. Book Arts integrates a variety of mediums such as printmaking, photography, paper marbling, drawing and painting to enhance creativity. Group and individual critiques will take place throughout the semester.

If possible a field trip will be organized to visit Open Book in Minneapolis, an art gallery dedicated to reading, writing and book arts.

Ceramics (one semester)

Clay is the medium in this semester long course. The expressive qualities of clay, skills and technical information unique to ceramics, and thinking visually in three dimensions will be the focus of student exploration. Students will work on hand building forms as well as on the potter's wheel. Students will work towards communicating ideas visually and demonstrating an understanding of the elements and principles of art through the pieces they make. Students work on a series of assignments that allow for personal expression as well as expanding the student's understanding of art history, the multi-cultural nature of clay, and aesthetics. Artistic criticism is delivered through an ongoing dialogue with students, guiding them towards a deeper understanding of analysis and decision making.

Drawing I (one semester)

Drawing students will develop their observation and accuracy skills as they progress through a variety of classroom assignments such as still life drawings, perspective drawings, portraiture, figure drawing, and landscapes. A wide range of drawing media will be used: such as graphite, charcoal, India ink, pastel, oil pastel and color pencils. Students will continue to develop compositional understanding by applying the elements and principles of design to their sketches/drawings. A variety of artists will be studied as students discover how they are relevant in art history and to the individual student's work.

Drawing II (one semester)

Advanced Drawing is for students who have previously taken Drawing 1 receiving a grade of B or higher, or for students who can show a drawing portfolio of previous artwork. Mediums used will vary from pencil to pen and ink, charcoal, pastels and chalk. Advanced Drawing further explores technique, observational skills and personal style development. Individual style and creative problem solving skills will be developed. Historical and contemporary artists will be explored to further enhance the student artist's knowledge and approach to creating works of art. Assignments will have themes and/ or guidelines but students will work more independently, naturally developing personal interests and style. Students will be challenged to create large-scale works and are expected to complete at least one piece of work every three weeks. This is a course that relies on your own determination and direction.

Painting I (one semester)

Students will have the opportunity to explore different techniques, styles and media in painting. They will have the chance to create with watercolor, tempera and acrylics as well as a variety of tools, brushes and painting surfaces. They will be introduced to the basic principles of color theory and learn how to make revisions in their artwork. Students will also learn about the history and various styles of painting and the place of painting in the art world. Students will also create their own sketchbooks/ painting books. Each week students will be assigned a painting for their sketchbooks. They will be turned in every Thursday during class.

Painting II (one semester)

Advanced Painting is for students who have previously taken Painting 1 receiving a grade of B or higher, or for students who can show a painting portfolio of previous artwork. Mediums used will vary from watercolors to acrylics to pen and ink. Advanced Painting further explores technique, observational skills and personal style development. Individual style and creative problem solving skills will be developed. Historical and contemporary artists will be explored to further enhance the student artist's knowledge and approach to creating works of art. Assignments will have themes and/ or guidelines but students will work more independently, naturally developing personal interests and style. Students will be challenged to create large-scale works and are expected to complete at least one piece of work every three weeks. This is a course that relies on your own determination and direction.

World Music (one semester)

Have you ever wondered what teens in other parts of the world like to listen to? In the World Music courses, students will have the opportunity to experience fascinating world cultures first hand through the study of their unique musical traditions. Students will explore the effects of major historical events on the development of musical styles, and learn to make connections between current events and the music of today. The courses will examine ancient and native traditions, as well as the current popular music trends. Students will experience musical styles and traditions through recordings, film, popular music videos, live performance, and instrument making. No previous musical experience is required, just the willingness to listen with an open mind.

Beginning Guitar (one semester)

Guitar classes offer instruction in music through playing the guitar. Beginning Guitar is the first level of guitar instruction for students with no previous experience playing guitar. Students who have very little previous guitar playing experience should speak with the teacher to see whether this course or the next level is best for their skills. Students must own or have access to an acoustic guitar for use during this class or a supply fee will be assessed to supply the student with a guitar. (Electric guitars are not acceptable.)

Intermediate Guitar (one semester)

Picking up where Beginning Guitar ended, Intermediate Guitar allows both review and an opportunity to expand upon your solo and ensemble guitar playing skills. If you have successfully completed Beginning Guitar, you are ready to take this course. If you have guitar experience other than SPP's Beginning Guitar class, please talk to the teacher to see if this class is right for you.

Physical Education

Competitive Team Sports (one semester)

Geared for students looking for a more sports-based curriculum, this class is structured around team sports for each unit. Within each unit, students receive skill instruction through drills, practice sport-specific training through strength and cardio workouts appropriate to that unit, and engage in competitive gameplay for the majority of time spent in class.

Fitness for Life (one semester)

In this course, we will cover the basic principles of training, how the body responds to different forms of exercise, and how to have fun doing it! We will apply these concepts daily in a variety of workout routines, set personal fitness goals, and design our own workout plans that will guide us to achieving those goals.

Health (one semester)

This is a one semester course designed to meet Minnesota state guidelines on health topics relevant to citizens of all ages. The course is divided into five broad topic areas:

- Life Skills (goal setting, communication, refusal skills)
- Nutrition (nutrients, food labels, metabolism, food journals, eating disorders)
- Weight Management-(physical fitness, target heart rate zones, muscle metabolism, BMI)
- Tobacco (types of tobacco, negative effects & consequences, advertising, PSA's)
- Alcohol (refusal skills, drinking & driving, consequences, addiction, binge drinking, alcoholism)
- Drugs (overview of main illicit drugs, gateway drugs, drugs presentation)
- Sexual Education (abstinence, relationships, protection, unwanted pregnancy, STI's, HIV)
- First Aid & CPR (theory and practical application on mannequins)

Lifetime Activities (one semester)

Geared for students who want to be active in a non-competitive atmosphere, this course is focused on individual sports, games, activities, and other forms of exercise that can be enjoyed into adulthood. It is largely fitness-based and incorporates individual goal-setting.

Strength and Conditioning (one semester)

Students will build upon what they have learned in “Fitness for Life” adding in more advanced and activity-specific training concepts. This course will be customized as much as possible toward the interests of students enrolled, but will engage participants in more advanced and intense types of exercise training. Come ready to sweat and give it your all! You won’t be the same when you finish this course!

Prerequisite: “Fitness for Life” or upon approval of the instructor

Information Technology

AP Computer Science (per skill level)

PREREQUISITES: SUCCESSFUL COMPLETION OF AN ALGEBRA CLASS AND COMPETENT WRITING SKILLS.

This course is a college-level introductory course in computer science. The course follows the topics outlined in the College Board AP curriculum. It is much more than a course in programming; the emphasis in the course is on procedural and data abstraction, object-oriented programming and design methodology, the study of algorithms, and data structures. However, much of the course is concerned with using these tools to develop computer programs to correctly solve given problems. The Java programming language is used in the hands-on programming portion of the course. NOTE: YOU DO NOT NEED TO HAVE ANY PREVIOUS EXPERIENCE WITH PROGRAMMING OR COMPUTERS TO TAKE THIS COURSE. STUDENTS TAKING THIS COURSE MUST TAKE THE AP COMPUTER SCIENCE EXAM IN MAY.

Introduction to Computer Programming (fall semester only)

This course teaches computer programming as a tool for problem solving, game creation, and mobile application development. Students will work primarily with MIT's SCRATCH and Android App Inventor to create web games and applications for mobile devices. Students will be prepared for future courses in computer science through work with concepts such as algorithmic problem solving, searching/sorting methods, conditionals, loops, and input/output. Other languages explored may include Python and Java, as per student interest and former programming experience.

Yearbook

This course provides students with journalism skills and the ability to apply those skills to the production of the yearbook. Units of study include content, coverage, concept, reporting, writing, headlines, captions, editing, photography, typography, design, graphics, finances, advertising, and distribution. The end result is a yearbook in which the school community can enjoy. Note: A digital camera and flash drive are needed for this class. There is also a technology fee for this class due to the various activities, materials/equipment, and software used.

Intro to Aviation (one semester)

Since the beginning of time, man has looked to the sky with the dream of flying. This course aims to answer that dream by introducing students to the world of aviation. Topics covered include the history of flight, aerodynamics of flight, aircraft systems, instruments and powerplants, weather and aviation meteorology, aircraft navigation and communication, careers in aerospace, and the impact of the aerospace age. Students will gain an understanding of not only the physics of flight, but also delve into the basic operation of small aircraft and how the development of aerospace technology has been instrumental in extending mankind’s boundaries during the previous century. Students should have good computational math skills and an interest in science.

College Preparation

SAT Preparation (one semester)

This course is designed to familiarize students with the SAT: a standardized exam required for admission to most universities in the United States. Students will learn the basics – e.g. the three sections, time requirements, how to register – as well as learn and practice various question types and test-taking strategies. Special attention will be given to the English portions: critical reading (passage-based reading, sentence completion) and writing (identifying sentence errors, improving sentences, improving paragraphs, essay writing).

TOEFL Preparation (one semester)

This course prepares students for success in taking the TOEFL exam. In class we use real TOEFL questions to practice speaking, listening, reading, and writing for the actual exam. Throughout the year, students are registering for and taking the exam on the weekends. After taking the exam, as they return to class they share their strengths and weaknesses. We address these in class. As we practice, we use strategies that increase success in the test. Critical thinking, arguing a position, and detailing a position are all important skills that are new to many international students, but are required for the TOEFL test. We work on these and many other pertinent skills. This course is designed for students who are taking the TOEFL test and would like to work on increasing their scores. It is a year-long course but can be taken for one semester as a standalone.