

# PSAE COURSE CATALOG

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## MATHEMATICS

### **Math 7 A/B**

Math 7 builds on material learned in earlier grades, including fractions, decimals, and percentages and introduces students to concepts they will continue to use throughout their study of mathematics. Among these are surface area, volume, and probability. Real-world applications facilitate understanding, and students are provided multiple opportunities to master these skills through practice problems within lessons, homework drills, and graded assignments.

### **Math 8 A/B**

This course is designed to enable all students at the middle school level to develop a deep understanding of math objectives and leaves students ready for algebra. The first semester covers objectives in transformations, linear equations, systems of equations, and functions. The second semester focuses on scientific notation, roots, the Pythagorean Theorem and volume, and statistics and probability. The course is based on the Common Core State Standards Initiative and on a modern understanding of student learning in mathematics.

### **Algebra 1 A/B**

A comprehensive study of all of the concepts of Algebra I required to meet state and Common Core standards. With multiple opportunities for practice and review, students easily master skills including variables, linear equations, quadratic equations, function notation, and exponential functions.

### **Algebra 2 A/B**

Algebra 2 expands on the algebraic functions learned in Algebra I by bringing in concepts of linear, quadratic, and simultaneous equations; laws of exponents; progression; binomial theorems; and logarithms. The course units are competency-based. Learners experience new situations which they practice in a real-world environment and match to previous learning.

### **Geometry A/B**

A comprehensive examination of geometric concepts, each lesson provides thorough explanations and builds on prior lessons. Step-by-step instruction and multiple opportunities for self-check practice develop skills and confidence in students as they progress through the course. The course features animations, which allow students to manipulate angles or create shapes, such as triangles, engage students in learning and enhance mastery. Labs extend comprehension by giving students hand-on experiences.

### **Accelerated Math**

Helps teachers personalize dynamic math practice based on state standards for college and career readiness by grouping students according to STAR Math interim assessment data. Teachers can easily provide tailored math practice while monitoring progress toward success on summative exams at a glance using the teacher dashboard.

Math proficiency is critical for students' college and career readiness. Accelerated Math helps ensure that proficiency for every student using unique methods that have been proven effective in more K12 classrooms than any other math program.

## ENGLISH LANGUAGE ARTS (ELA)

### **English 07 A/B**

Integrates the study of writing and literature through the examination of a variety of genres. Students identify the elements of composition in the reading selections to understand their function and effect on the reader. Practice is provided in narrative and expository writing. Topics include comparison and contrast, persuasion, and cause and effect essays, as well as descriptive and figurative language. Lessons are supplemented with vocabulary development, grammar, and syntax exercises, along with an introduction to verbal phrases and research tools.

### **English 08 A/B**

English is the study of the creation and analysis of literature written in the English language. In English 8A, you will explore the features of different forms of literary writing such as diaries, memoirs, informative essays, and fictional narratives. You will also improve your writing by learning about persuasive writing techniques. You will compare and contrast a literary piece across different mediums, including drama. You will engage in a dramatic reading of poetry and learn how to give multimedia presentations. In the latter part of the course, you will analyze informational texts to understand the history of the Civil War. You will also analyze various types of literary works to better understand literary elements such as point of view, conflict, theme, structure, and setting.

### **English 09 A/B**

English 9 introduces the elements of writing poems, short stories, plays, and essays. Grammar skills are enhanced by the study of sentence structure and style and by student composition of paragraphs and short essays. Topics include narration, exposition, description, argumentation, punctuation, usage, spelling, and sentence and paragraph structure.

### **English 10 A/B**

This course focuses on using personal experiences, opinions, and interests as a foundation for developing effective writing skills. Skills acquired in English I are reinforced and refined. Literary models demonstrate paragraph unity and more sophisticated word choice. A research paper is required for completion of course. Topics include grammar, sentence and paragraph structure, organizing compositions, and the research paper.

### **English 11 A/B**

English 11A explores the relation between American history and literature from the colonial period through the realism and naturalism eras. English 11B explores the relation between American history and literature from the modernist period through the contemporary era, and presents learners with relevant cultural and political history. Readings are scaffolded with pre-reading information, interactions, and activities to actively engage learners in the content. The lessons in both semesters focus on developing grammar, vocabulary, speech, and writing skills.

### **English 12 A/B**

In keeping with the model established in English 11, these courses emphasize the study of literature in the context of specific historical periods, beginning with the Anglo-Saxon and medieval periods in Britain. Each lesson includes tutorials and embedded lesson activities that provide for a more engaging and effective learning experience. Semester B covers the romantic, Victorian, and modern eras. End of unit tests ensure mastery of the concepts taught in each unit, and exemptive pretests allow students to focus on content that they have yet to master.

### **Accelerated Reader 360**

Supports independent reading practice and the three key instructional shifts being emphasized in the Common Core: more nonfiction reading, more reading of complex texts, and the ability to cite text evidence.

# SOCIAL STUDIES

## **Middle School U.S. History A/B**

Covers the people who lived in the Americas before European settlers arrived, how the United States was founded, and how it grew and changed over time. The students may be familiar with some of the topics that appear in these lessons, but others will be new. Students should read all the content and think about it carefully as they work through the course.

## **Middle School World History**

This is an engaging, course offering students an in-depth but easily understood view of the human experience, from the earliest civilizations through the Age of Enlightenment. Interactive features allow students to apply their mastery of lessons through such activities as customizing maps and designing feudal villages. An audio pronunciation guide assists students' ability to say and remember the names of people and places. Frequent self-check practice questions and homework assignments prepare students for the accompanying assignments.

## **World Geography A/B**

In an increasingly interconnected world, equipping students to develop a better understanding of our global neighbors is critical to ensuring that they are college and career ready. These semester-long courses empower students to increase their knowledge of the world in which they live and how its diverse geographies shape the international community. Semester A units begin with an overview of the physical world and the tools necessary to exploring it effectively. Subsequent units survey each continent and its physical characteristics and engage students and encourage them to develop a global perspective.

## **Civics A/B**

Interactive, problem-centered, and inquiry-based, each unit in Civics emphasizes the acquisition, mastery, and processing of information. Every unit features both factual and conceptual study questions. Instructional strategies include Socratic instruction, student-centered learning, and experiential learning. Topics covered range from Basic Concepts of Power and Authority and National Institutions of Government to analyses of society and citizenship.

## **U.S. History A/B**

This course not only introduces students to early U.S. History, but it also provides them with an essential understanding of how to read, understand, and interpret history. For example, the first unit, The Historical Process, teaches reading and writing about history; gathering and interpreting historical sources; and analyzing historical information. While covering historical events from the founding events and principles of the United States through contemporary events, the course also promotes a cross-disciplinary understanding that promotes a holistic perspective of U.S. History

## **U.S. Government**

The interactive, problem-centered, and inquiry-based units in U.S. Government emphasize the acquisition, mastery, and processing of information. Semester A units include study of the foundations of American government and the American political culture, with units 2 and 3 covering the U.S. constitution, including its roots in Greek and English law, and the various institutions that impact American politics.

## **Economics**

This course leverages diverse resources from the National Council on Economic Education in partnership with the National Association of Economic Educators, and the Foundation for Teaching Economics. It begins with providing a basic understanding of the U.S. economy and its relationship to the world economy. It then covers macro issues such as government and the economy and micro issues such as entrepreneurship and consumer issues.

# SCIENCE

## **Life Science**

Life Science is a branch of natural science that deals with the structure and behavior of living organisms. You will learn about the diversity of life on Earth and how to make sense of the systems and events in nature. In Life Science A, you will begin by studying the most basic unit of life, the cell, and work your way towards more complex organisms that include plants and animals. Throughout the course, you will use the scientific method. This is a procedure that will help you set up credible experiments to test predictions. The method features research, data gathering, observation, and communication

## **Physical Science**

Physical science is part physics and part chemistry. It's a branch of science that deals with matter, energy, forces, and motion. In this course, you will identify and describe the chemical composition and properties of substances. Additionally, you will study the interactions between matter and energy in physical contexts. Throughout the course, you will apply your reasoning skills through investigation and the principles of the scientific method. As you might expect, measurement and data collection play an important role.

## **Earth & Space Science**

Science is the study of the natural world. It relies on experimentation and physical evidence to describe the natural events that occur around us. Earth and Space Science A begins with space. You will observe the phases of the Moon and use scientific evidence to understand how Earth, the Sun, and the Moon interact. You'll also examine other celestial objects in our solar system. This course describes the history of Earth through the study of energy flow, weathering and erosion, the rock cycle, and tectonic plate movements. You will apply an understanding of the three states of matter to explain the water cycle and other systems on Earth. The course ends with a discussion of Earth's natural resources

## **Biology A/B**

Students develop a clear understanding of the sometimes complex concepts at the root of life science. Course units cover genetics and evolution, cell structure, multiple units on the diversity of life and on plant structure and function. For example, the unit on cell structure and specialization drills down into mitosis, meiosis, and cancer and carcinogens.

## **Chemistry A/B**

The course surveys chemical theory, descriptive chemistry, and changes in matter and its properties. Students learn how to classify different states of matter as well as how atoms and compounds are structured. Additional areas of discussion include chemical energetics, measurements, bonding, stoichiometry, ionization, hydrocarbons, oxidation and reduction. A variety of simple lab experiments are included.

## **Physics A/B**

Physics introduces students to the physics of motion, properties of matter, force, heat, vector, light, and sound. Students learn the history of physics from the discoveries of Galileo and Newton to those of contemporary physicists. The course focuses more on explanation than calculation and prepares students for introductory quantitative physics at the college level. Additional areas of discussion include gases and liquids, atoms, electricity, magnetism, and nuclear physics.

# ELECTIVES

## **Academic Success**

This elective course is intended as a practical, hands-on guide to help you improve your study habits and enhance your prospects for academic success, now and in the future. It is designed to help you improve your study skills regardless of your skill level at the time that you take the course.

Because this course is designed to help you improve your academic effectiveness, you are encouraged to use it in direct conjunction with other classes you are taking. For that reason, if you would benefit from a different way of sequencing the content to better support your academic needs than the order in which it is presented here, you are encouraged to work with your teacher or other administrative personnel to adapt the course content as needed. For example, if you are writing a research paper early in the semester, you might want to take the last three lessons earlier in the term.

## **Career Explorations**

This one-semester course is intended as a practical, hands-on guide to career exploration and planning. This course covers all of the career clusters in the National Career Clusters Framework. You'll explore the career pathways within each cluster, determine the academic and skill requirements for different career pathways, and learn about the jobs available in each pathway and the work these professionals do. This course will also guide you through the process of creating an academic and career plan based on your interests, abilities, and life goals.

## **Computing for College and Careers**

This course is intended as a practical, hands-on guide to help you understand the basic computer skills required during your college education and when pursuing a career. This course will cover basic computer hardware and software and productivity applications such as word processing software, spreadsheet software, and presentation software. This course also covers the Internet and emerging technologies.

## **Consumer Mathematics**

Consumer Mathematics is designed to teach you about real-life financial situations that require everyday math skills. As a consumer, you will be earning, spending, and saving money. This course will help you make educated and responsible decisions regarding your finances. In this course, you will learn practical applications of math. You will learn how to plan a budget, manage bank accounts, and figure the cost of a good or service. You will also learn about taxes, payroll deductions, and how to invest and borrow money. This course will help you make informed decisions about buying or renting a home or car and teach you how to protect your purchases and investments with insurance. Finally, you will study economics, or the science of the creation, distribution, and consumption of goods and services. You'll see how economics affects you as an individual and how it affects the country as a whole.

## **Development and Parenting**

This course is intended to help you familiarize yourself with various aspects of child development and parenting.

This course covers fundamental concepts of parenting and child rearing. It also covers essential communication skills related to parent-child interaction. In addition, the course covers workplace skills, such as positive work ethics, integrity, and resource management. It also covers some recent trends in parenting.

## **Early Childhood Education**

Want to have an impact on the most important years of human development? Students will learn how to create fun and educational environments for children, how to keep the environment safe for children, and how to encourage the health and well-being of infants, toddlers, and school-aged children.

## **Essential Career Skills**

This course is intended as a practical, hands-on guide to help you understand the skills required to achieve success in modern-day careers. This course will cover essential career skills such as positive work ethics, teamwork, conflict resolution, effective speaking and listening, health and safety, and information technology.

## **Graphic Design and Illustration**

This course is intended as a practical, hands-on guide to help you understand graphic design concepts, graphic image creation, and image manipulation. This course covers careers you can pursue in graphic design. It also covers training and skills required for a graphic designer. In addition, this course describes how to create images using color and typography and how to manipulate images. It also guides you how to create images using design elements and principles. Finally, this course covers copyright laws and ethics related to the use of graphic design.

## **Health**

Everyone needs to take care of their body, but we aren't necessarily born with the knowledge of how to go about it. It's important to invest time and energy into understanding what it means to be healthy. There are many activities you can engage in which are dangerous for your long-term health, so you need to know how to identify and avoid these activities. It's also important to identify lifestyles which will lead to a longer, more enjoyable life. This course will guide you through lifestyle choices you will make which will ultimately impact your life in meaningful ways.

## **Introduction to Culinary Arts**

Food is fundamental to life. Not only does it feed our bodies, but it's often the centerpiece for family gatherings and social functions with friends. In this course, you will learn all about food including food culture, food history, food safety, and current food trends. You'll also learn about the food service industry and try your hand at preparing some culinary delights. Through hands-on activities and in-depth study of the culinary arts field, this course will help you hone your cooking skills and give you the opportunity to explore careers in this exciting industry.

## **Journalism**

Who? What? When? Where? Journalism provides us with the answers to these questions for the events that affect our lives. In this course, students will learn how to gather information, organize ideas, format stories for different forms of news media, and edit their stories for publication. The course will also examine the historical development of journalism and the role of journalism in society.

## **Music Appreciation**

This one-semester elective course is intended as a practical, hands-on guide to help you understand, discuss, and appreciate music more knowledgeably. You will explore the history and evolution of music. You will also learn about the concepts and techniques in music and music listening. You will also learn about musical instruments, famous composers and artists, and key musical genres.

## **Peer Counseling**

Helping people achieve their goals is one of the most rewarding of human experiences. Peer counselors help individuals reach their goals by offering them support, encouragement, and resource information. This course explains the role of a peer counselor, teaches the observation, listening, and emphatic communication skills that counselors need, and provides basic training in conflict resolution, and group leadership. Not only will this course prepare you for working as a peer counselor, but the skills taught will enhance your ability to communicate effectively in your personal and work relationships.

## **Personal & Family Finance**

How do our personal financial habits affect our financial future? How can we make smart decisions with our money in the areas of saving, spending, and investing? This course introduces students to basic financial habits such as setting financial goals, budgeting, and creating financial plans. Students will learn more about topics such as taxation, financial institutions, credit, and money management. The course also addresses how occupations and educational choices can influence personal financial planning, and how individuals can protect themselves from identity theft.

## **Real World Parenting**

The process of parenting is more than just having a child and making sure they eat, sleep and get to school on time. Learn what to prepare for, what to expect, and what vital steps a parent can take to create the best environment and life for their child. Parenting roles and responsibilities; nurturing and protective environments for children; positive parenting strategies and effective communication in parent/child relationships are some of the topics covered in this course.

## **Structure of Writing**

Structure of Writing is the study of principles of grammar and effective writing, and application of these principles to writing. In Structure of Writing, you will learn about the types of sentences, punctuation marks and grammar rules such as subject verb agreement and tenses; you will also learn about different parts of speech and their correct usage; examine the concept of parallel structure in sentences as well as identify and correct run-on sentences. Finally, you will learn about developing paragraphs and essays.

