Section 2 – Curriculum Choices Course Catalog

Edmentum offers a broad range of rigorous and engaging courses through Plato Courseware. Explore your options below.

Math

ADVANCED CALCULUS A/B

This course grounds the study of calculus in real-world scenarios and integrates it with the four STEM disciplines. The first semester covers functions, limits, derivatives and the application of derivatives. The course goes on to cover differentiation and anti-differentiation, applications of integration, inverse functions, and techniques of integration.

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.

CONSUMER MATHEMATICS

This course explains how four basic mathematical operations – addition, subtraction, multiplication, and division – can be used to solve real-life problems. It addresses practical applications for math, such as wages, taxes, money management, and interest and credit. Projects for the Real World activities are included that promote cross-curricular learning and higher-order thinking and problem-solving skills.

DEVELOPMENTAL MATH - INTERMEDIATE ALGEBRA

As with other Plato courses, each unit in Developmental Math 3 includes a pretest that allows learners to be exempted from material they already know, and lets them focus solely on the skills and concepts they have yet to master. This creates a more effective learning experience by creating a more personalized learning experience. The five units in this course include: essentials of algebra; rational exponents and radicals; quadratic equations; functions; and exponential and logarithmic functions. Unit post-tests inform teachers of the concept mastery achieved by each.

DEVELOPMENTAL MATH - ADVANCED ALGEBRA

This course prepares learners for trigonometry and for whatever their next steps are in mathematics. It provides a more in-depth study of nonlinear equations, inequalities, and functions, while also covering induction, sequences, and counting. Other units include functions and conic sections. The units are intentionally sequential and use a spiraling curriculum approach to ensure that each unit builds on the previous units. The course is engaging, rigorous, and highly interactive, and was developed using proven pedagogical methodologies.

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.

PRECALCULUS A/B

Precalculus builds on algebraic concepts to prepare students for calculus. The course begins with a review of basic algebraic concepts and moves into operations with functions, where students manipulate functions and their graphs. Precalculus also provides a detailed look at trigonometric functions, their graphs, the trigonometric identities, and the unit circle. Finally, students are introduced to polar coordinates, parametric equations, and limits.

PROBABILITY & STATISTICS

This course is designed for students in grades 11 and 12 who may not have attained a deep and integrated understanding of the topics in earlier grades. Students acquire a comprehensive understanding of how to represent and interpret data; how to relate data sets; independent and conditional probability; applying probability; making relevant inferences and conclusions; and how to use probability to make decisions.

Language Arts

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.

Social Studies

ECONOMICS

This courses 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.

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.

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.

World History A/B

World History A and B provide a robust and comprehensive overview for your students. Beginning with early civilizations in the Middle East, India, and China, the combined eight units conclude with a survey of the world since 1945. Other topics include a review of the Byzantine Empire, the resurgence of Europe, and the impacts of nationalism and democracy. The courses are flexible, offering optional topics, an array of learning resources, and a variety of engaging activities. Each course takes approximately 90 class periods, or 18 weeks, to complete.

Science

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.

Earth & Space Science A/B

This course surveys basic physical sciences such as geology, biology, meteorology, oceanography, astronomy, botany, and physics and their impact on the earth. Students are guided to a better understanding of how the earth and the universe are structured.

Life Science A/B

Each unit in Life Science uses a central theme to teach Life Science concept, thus providing learners with a cohesive and connected learning experience. The course begins with an overview

of scientific inquiry, and subsequent units explore the cellular and chemical bases of life, classification and diversity of life, and genetics.

PHYSICAL SCIENCE A/B

Beginning with the first unit, Properties and Structures of Matter, Physical Science is a comprehensive exploration of the physical world of the course studies inanimate matter as well as topics in astronomy and geology, and broadens the student's understanding of the states of matter by applying them to weather and atmosphere. Other units include; Forces and Motion; Energy and its Application; and Chemistry Fundamentals.

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.

Career Technical Education

CAREER EXPLORATIONS

The 21 lessons and additional activities in this one-semester course are fundamental to ensuring career readiness on the part of your students. Covering such essentials as developing and practicing a strong work ethic, time management, communication, teamwork, and the fundamentals of workplace organizations, Career Explorations develops not just essential skills, but the confidence in themselves and their abilities to present themselves that your students need as they prepare to embark on their chosen careers.

CHILD DEVELOPMENT AND PARENTING A/B

As adulthood and its accompanying responsibilities become closer for many of your students, this one-semester course with 12 lessons introduces them to the basics of parenting. Students will learn the nuances of parenting including learning about prenatal and postnatal care and gain insights on the nurture of children. Students will also learn about the importance of positive parenting skills, parent-child communication, and ways to use community resources for effective parenting. Activities will help your students connect leading research to real-life experience.

COMPUTER APPLICATIONS & TECHNOLOGY

Throughout this course students are presented with a variety of computer applications and technology concepts and demonstrate their understanding of those concepts through practical problem-solving exercises. A course project includes activities related to the course objectives and can be assigned for work throughout the course.

COMPUTER PROGRAMMING A/B

Part of the Plato Courseware Career Technical Education (CTE) Library, Computer Programming combines engaging online and offline activities in a rigorous one semester course for your high school students who may be aspiring to technical careers. Building on lessons covering the software development lifecycle and software development methodologies, the course uses online discussions, activities, and lessons to lead your students through additional key topics such as quality control, system implementation and maintenance and the increasingly important issue of system security.

GAME DEVELOPMENT

Are any of your students gamers? That's what we thought. In this course, they'll learn the ins and outs of game development to prepare them for a career in the field. Whether it is the history of

video games, character development, mobile game design, user interface design, social gaming, or the principles of development design and methodologies, this 20-lesson course covers it all. As you might guess, games are included in the course to enhance the learning experience and help assess student progress. While fun and highly engaging, the course focuses on laying a strong foundation for a career in game development.

Music Appreciation

In a time of an increasing emphasis on STEM courses and skills, it remains essential to provide your students with opportunities to explore the arts from both an informational and career-oriented perspective. In Music Appreciation, students will explore the history and evolution of music, learn the elements of music and musical notations, and the contributions of popular music artists and composers. A variety of lessons, activities, and discussions will help to develop an awareness and appreciation of music that will develop not only critical thinking skills, but life enriching skills as well.

Personal & Family Finance

How do personal financial habits affect students' financial futures? How can they make smart decisions with 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 learn 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.

Electives

Art History & Appreciation

This course explores the main concepts of art, expression, and creativity as it helps students answer questions such as what is art; what is creativity; and how and why people respond to art. It covers essential design principles such as emphasis, balance, and unity. Units include: Art, History, and Culture; Western and World Art Appreciation; and Art and the Modern World.

Forensic Science 1: Secrets of the Dead

In this course, students are introduced to forensic science. We discuss what forensic science consists of and how the field developed through history. Topics covered include some of the responsibilities of forensic scientists and about some of the specialty areas that forensic scientists may work in. Objective and critical thinking questions are combined with lab activities to introduce students to analyzing the crime scene, a wide variety of physical evidence such as firearm and explosion evidence, and DNA evidence.

Forensic Science 2: More Secrets of the Dead

Although the crime scene is the first step in solving crimes through forensic science, the crime laboratory plays a critical role in the analysis of evidence. This course focuses on the analysis of evidence and testing that takes place within the lab. It examines some of the basic scientific principles and knowledge that guide forensic laboratory processes, such as those testing DNA, toxicology, and material analysis. Techniques such as microscopy, chromatography, odontology, mineralogy, and spectroscopy will be examined.

Psychology

This flexible, customizable course gives your students an overview of the history of psychology while also giving them the resources to explore career opportunities in the field. Students will learn how psychologists develop and validate theories and will examine how hereditary, social, and cultural factors help form an individual's behavior and attitudes. Students will also evaluate

the effectiveness of different types of psychological counseling and therapy. Highly interactive content includes online discussions that help develop critical thinking skills.

World Languages

FRENCH 1 A/B

These courses are based on a researched scope and sequence that covers the essential concepts of French. Class discussions provide an opportunity for discourse on specific topics in French. A key support tool is the Audio Recording Tool that enables students to learn a critical skill for French: listening and speaking. Beginning with learning personal greetings and continuing through practical communications exchanges, French 1B introduces students to the skills necessary to make the most of traveling to French-speaking countries.

FRENCH 2 A/B

Each of these semesters is designed to build on the principles mastered in French 1 and use a combination of online curriculum, electronic learning activities, and supporting interactive activities to fully engage learners. Unit pretests, post-tests, and end-of-semester tests identify strengths and weaknesses, helping to create a more personalized and effective learning experience. As with French 1, these 90-day courses emphasize practical communication skills while also building intercultural awareness and sensitivity.

SPANISH 1 A/B

Spanish is the most spoken non-English language in U.S. homes, even among non-Hispanics, according to the Pew Research Center. There are overwhelming cultural, economic, and demographic reasons for students to achieve mastery of Spanish. Spanish 1A and B engage students and use a variety of activities to ensure student engagement and to promote personalized learning. These courses can be delivered completely online, or implemented as blended courses, according to the unique needs of the teacher and the students.

SPANISH 2 A/B

Spanish 2A and B utilize three assessment tools that are designed specifically to address communication using the target language: Lesson Activities, Unit Activities, and Discussions. These tools help ensure language and concept mastery as students grow in their understanding and use of Spanish. Learning games specifically designed for language learning are used and can be accessed on a wide variety of devices.

SPANISH 3 A/B

Spanish 3A and B take a unique approach by setting the lessons in each unit in a specific Spanish-speaking locale, immersing students in the language and in a variety of Hispanic cultures and issues. For example, Unit 5 in Semester B includes a discussion of the environmental issues in Argentina. Concluding the three-year cycle of Spanish courses, Spanish 3A and B effectively combine group and individual learning and offer activities and assessments to keep students engaged an on track.