

# IvyTech Charter School

## Summer 2021 Courses

### English

**English 9 (s1, s2)\*+** - This freshman-year English course invites students to explore diverse texts organized into thematic units. Students engage in literary analysis and inferential evaluation of great texts, both classic and contemporary. While critically reading fiction, poetry, drama, and literary nonfiction, students master comprehension and literary-analysis strategies.

**English 10 (s1, s2)\*+** - This sophomore English course reinforces literary analysis and 21st-century skills with superb pieces of literature and literary nonfiction, application e-resources, and educational interactives. Each thematic unit focuses on specific literary analysis skills and allows students to apply them to a range of genres and text structures.

**English 11 (s1, s2)\*+** - Students engage in literary analysis and inferential evaluation of great texts as the centerpieces of this course. While critically reading fiction, poetry, drama, and expository nonfiction, students master comprehension and literary analysis strategies. Tasks will encourage students to strengthen their oral language skills and produce creative, coherent writing.

**English 12 (s1, s2)\*** - This senior-level English course offers fascinating insight into British literary traditions spanning from Anglo-Saxon writing to the Modern Period. With interactive introductions and historical contexts, this course connects philosophical, political, religious, ethical, and social influences of each time period to the works of many notable authors.

### Math

**Algebra I (s1, s2)\*+** - Designed for students without any algebraic background, the course covers the essential topics needed to be successful in Intermediate Algebra/Algebra II. Topics include real numbers and algebraic expressions, linear equations, inequalities, exponents, order of operation, polynomial expressions, factoring, quadratic equations, graphing linear equations, radical expressions and equations, linear systems and mathematical modeling.

**Algebra II (s1, s2)\*+** - Building upon the lessons learned in Pre-Algebra and Algebra 1, Algebra 2 broadens its scope to include the essential topics needed to be successful in College Algebra, Pre-Calculus, or Trigonometry. Algebra 2 is supported by the informative, user-friendly Omega Math website. Topics include: functions, logarithmic functions, exponential functions, complex numbers and more.

**Geometry (s1, s2)\*+** - This course is designed to prepare students in the understanding of properties and applications in Euclidean geometry. Extensive use of definitions, postulates, and theorems are used to write proofs using deductive reasoning. Critical thinking skills are used in solving real world applications. Topics include parallel and perpendicular lines, congruence, similar and other properties of triangles, introduction to trigonometry, transformations, three dimensional concepts, conics, angles, polygons, circles, area, perimeter, surface area and volume.

**Math I (s1, s2)\*** - The course begins with a review of relationships between quantities, building from unit conversion to a study of expressions, equations, and inequalities. Students contrast linear and exponential relationships, including a study of sequences, as well as applications such as growth and decay. Multi-step equations, formally reasoning about each step using properties of equality are reviewed. Students extend this reasoning to systems of linear equations. Descriptive statistics are used to analyze data before turning their attention to transformations and congruence theorems.

**Math II (s1, s2)\*** - The course continues with quadratic expressions, equations, and functions. As quadratic equations become more multifaceted, real and complex numbers are introduced to extend the set of rational numbers which can be used to solve quadratic equations. Links between probability and data through conditional probability, two-way tables, and counting methods are explored. This course challenges students to make connections between algebra and geometry.

**Math III (s1, s2)\*** - Students relate visual displays and summary statistics to various types of data and to probability distributions with a focus on drawing conclusions from the data. Students embark on an in-depth study of polynomial, rational, and radical functions, drawing on concepts of integers and number properties to understand polynomial operations and the combination of functions through operations.

**Money Math (Consumer Math) (1 sem)** - Fundamental principles of money and money management are introduced, beginning with the concept of the time value of money. The course addresses different types of interest and provides a wealth of information on banks, including how to effectively manage a bank account. Credit and debit cards are compared, highlighting the benefits and pitfalls of each. Loans, financing large purchases, savings, investments, and cybersecurity are addressed.

## Science

**Health (1 sem)** - Encouraging students to make responsible, respectful, informed, and capable decisions about topics that affect the well being of themselves and others, this course provides students with the comprehensive information they can use to develop healthy attitudes and behavior patterns. Designed for high school students, this informative course encourages students to recognize that they have the power to choose healthy behaviors to reduce risks.

### **Oceanography (Life Science) (s1, s2) -**

Students study the ecology and diversity of the world's oceans, with particular attention paid to the complex interactions among all marine life. Topics include: life in the sea, deep sea exploration, marine mammals, coastal ecosystems, and the sea floor. Students also learn to use graphs, tables, maps, data and the Internet to enrich their study of this challenging and exciting course.

### **Earth Science (Physical Science) (s1, s2) -**

Students learn the critical importance of scientific developments in today's world through gaining basic knowledge of earth science. Topics include early Earth, geological history, fossils, minerals and rocks, plate tectonics, earthquakes, volcanoes, the Carbon and Nitrogen cycles, the atmosphere, the ozone layer, the greenhouse effect, weather, climate, air and ocean circulation patterns, the solar system, our galaxy, and beyond.

**Biology (s1, s2)\*+** - This course engages students in the study of life and living organisms and examines biology and biochemistry in the real world. It encompasses traditional concepts in biology and encourages the exploration of new discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology.

**Astronomy (1 sem)** - This course will introduce students to the study of astronomy, including its history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods used by astronomers to learn more about the universe. Additional topics

include the solar system and planets, the Milky Way and other galaxies, and the sun and stars. Using online tools, students will examine the life cycle of stars, the properties of planets, and the exploration of space.

## History

**Ethnic Studies (1 sem)\*** - This history and sociology course examines the multicultural fabric of the United States. The class emphasizes the perspectives of minority groups while allowing students from all backgrounds to better understand and appreciate how race, culture and ethnicity, and identity contribute to their experiences. Major topics include identity, immigration, assimilation and distinctiveness, power and oppression, struggles for rights, regionalism, culture and the media, and the formation of new cultures.

**World Geography & Cultures [formerly Intro to Social Studies] (1 sem)+** - Countries and cultures from all continents are covered, focusing on the role of geography in cultural advancement, development, and historical events. The course addresses distinctive cultural attributes within political borders, the conditions of indigenous people around the world, and regional ecological issues. Students study important people within various cultures, architectural features, music, art, foods, clothing, and behavioral norms.

**World History 10 (s1,s2)\*+** - This course follows California state social science standards for the study of world history and focuses on developing students' knowledge of the key political, economic, and social events that have shaped our world since the early modern period. This social science class seeks to develop students' critical thinking skills and college-level writing abilities.

**U.S. History 11 (s1, s2)\*+** - This course visits aspects of American history and provides a well-rounded, comprehensive depiction of events from the American Revolution to modern times. Students review many photographs, maps and speeches from different time periods, as well as cultural descriptions. American History is a

substantial, exciting course with many engaging websites to explore.

**Government (1 sem)\* +** - This course provides students with a basic understanding of American government. Topics include: the roots of democracy, the three branches of government, political participation and parties, landmark and current Supreme Court cases, civil rights, and individual liberties, as well as an examination of state and local governments. Diverse online resources make this course informative and engaging.

**Economics (1 sem)\*+** - In addition to studying the primary types of economic systems, laws of supply and demand and other key economic concepts, students learn about the effect that jobs, earnings, and career decisions have on their buying power and quality of life. Students also explore the role that an increasingly global market plays in their daily lives. In this course, economic concepts are explained in a simple, understandable way. Lessons involve problem-solving activities for real-life questions and scenarios.

## Electives/Other

**Physical Education (1 sem)** - Students will assess their fitness level, learning how to find their heart rate and proper performance of various exercises. Students will engage in 5 hours of physical activity per week, while maintaining a workout log. There are many types of physical activities and workout techniques that can be done at home. Students will reassess their fitness level and note the improvements they have made.

**Lifetime Fitness (1 sem)** - Exploring fitness topics such as safe exercise and injury prevention, nutrition and weight management, consumer product evaluation, and stress management, this course equips students with the skills they need to achieve lifetime fitness. Personal fitness assessments encourage students to design a fitness program to meet their individual fitness goals.

**IS Fine Arts (1 sem)** - In this course, students will learn the elements of art through the exploration and creation of their own projects with a variety of traditional mediums as well as non-traditional

mediums. Students will conceptualize artistic ideas by relating knowledge and personal experience. Students will also sharpen their observational skills by drawing from real life objects. This is a five week, self-guided course with no mandatory in-class meetings.

**Visual Arts (s1, s2)\*** - Covering art appreciation and the beginning of art history, this course encourages students to gain an understanding and appreciation of art in their everyday lives. Presented in an engaging format, Visuals Arts provides an overview of many introductory themes: the definition of art, the cultural purpose of art, visual elements of art, terminology and principles of design, and two- and three-dimensional media and techniques. Tracing the history of art, high school students enrolled in the course also explore the following time periods and places: prehistoric art, art in ancient civilizations, and world art before 1400.

**College & Career Readiness (1 sem)** - This course prepares students to make informed decisions about their future academic and occupational goals. Through direct instruction, interactive skill demonstrations, and practice assignments, students learn how to assess their own skills and interests, explore industry clusters and pathways, and develop plans for career and academic development.

**Google Apps for Education [formerly Intro to Computers] (1 sem)** - This course prepares students to use the Google Workspace for Education suite of easy-to-use tools that provide a flexible and secure foundation for learning, collaborating, and communicating. Students will learn about and complete projects for various Google Workspace apps, including Docs, Slides, Sheets, Forms, and Drawing.

## Foreign Language

**Spanish 1 (s1, s2)\*+** - Students begin their introduction to Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure

story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations.

**Spanish 2 (s1, s2)\*+** - Students continue their introduction to Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations.

**Spanish 3 (s1, s2)\*+** - High school students deepen their focus on four key skills in foreign language acquisition: listening comprehension, speaking, reading, and writing. In addition, students read significant works of literature in Spanish and respond orally or in writing to these works. Continuing the pattern and building on the first two years, each unit consists of a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations.

### **\*\*\*IMPORTANT DATES\*\*\***

- **July 1= Summer session starts; login access begins**
- **July 8 = Last day to drop a class(es)-- NO EXCEPTIONS**
- **August 5 = Summer session ends; login access ends**
- **After August 10 = Report Cards mailed to students and transcripts forwarded to schools**