

CHESS Christian School Course Descriptions 2024-2025

HIGH SCHOOL CORE

9th-12th Grades

The high school experience at CHESS is one of vibrant community and engagement, independent learning, and preparation for approaching college and career choices. Students will be equipped to defend their faith and to handle information wisely as they develop in knowledge and wisdom during these years. While students will demonstrate a high degree of independence, parents should still expect to hold students accountable and should be prepared to provide organizational and academic support as needed.

Worldview

High school Worldview will encourage students to dig deeper into biblical investigation and understanding, while connecting biblical truth to real-world applications. Topics of worldview and truth in relation to current events and social issues will be featured in discussion and assignments. Curriculum: Summit Ministries, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week)

English

English 9

In this foundational course, students will read, analyze, and discuss novel selections, short stories, and poetry with a focus on worldview so that they can learn to be discerning as they consume both written works and visual media. They will continue to learn how to select and analyze their own reading choices, with a focus on developing reading stamina and text complexity. Students will also develop the writing and analytical skills necessary for success in subsequent English courses.

Curriculum: teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week)

World Literature

Using literature selections from across genres and world cultures, this course will guide students in further developing analytical skills and identifying common threads of literature. Students will continue to be guided in self-selecting and analyzing their reading choices throughout the year. They will

also learn how to craft well thought out essays, conduct useful research, take succinct notes, annotate literature, and prepare effective presentations. Classroom discussion will be a critical component of developing the arts of analysis, argument, and collaboration. It is strongly recommended that students complete **English for 9th Grade** before enrolling in this course.

Curriculum: teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week).

Honors English (9th, 10th-12th Grades)

Designed for students who desire a greater challenge and would like to receive honors credit. This Wednesday Immersion class will meet once a month and will engage students in additional reading, deeper literary analysis, and more sophisticated writing.

**Prerequisite: prior enrollment in Honors English or principal approval based on evaluation of student transcript. **

History

9-12th grade World History

World History is a survey of human history from the earliest civilizations to modern times, presented through a Biblical lens. Using primary and secondary source material, maps, projects, essays, and discussion, students will examine geopolitical, social, and economic impacts and changes across world societies and cultures. Students will be challenged to apply critical thinking skills in analyzing historical figures, events, and timelines and will be required to develop and defend theses in both class discussion and in formal writing throughout the course.

Curriculum: Notgrass History, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week)

9-12th grade American History

American History begins with early English and Spanish settlements and follows the development of the nation from founding to the present, presented through a Biblical lens. Using primary and secondary source material, maps, projects, essays, and discussion, students will examine the political, social, and economic impacts and changes that have shaped American history. Students will be challenged to apply critical thinking skills in analyzing important American figures and events and will be required to develop and defend theses in both class discussion and in formal writing throughout the course. Curriculum: Notgrass History, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week)

11-12th grade Government

Government is an overview of American government and law, presented through a Biblical lens. Using primary and secondary source material, maps, projects, essays, and discussion, students will increase their knowledge of United States geography, political structure, and current events. Students will be challenged to apply critical thinking skills in analyzing the role of founding documents and Biblically-influenced law in rapidly changing political and social landscapes and will be required to develop and defend theses in both class discussion and formal writing throughout the course.

Curriculum: Notgrass History, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week)

Math

Algebra 1

This course will develop an understanding of the fundamentals of Algebra through a Biblical lens. Concepts will include: graphing, solving systems of equations, operations with polynomials and radicals, factoring polynomials, solving rational equations, and graphing quadratic functions. Students will utilize Google classroom and online resources to support at-home learning, in addition to classroom instruction. Curriculum: BJU Press, Math Medic, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Lab: Bi-monthly Immersion Lab required Fee: \$180 additional lab fee required

Prerequisite: Pre-Algebra

Outside commitment: heavy (3 or more hours per week)

Geometry

This course reinforces concepts of Geometry through a Biblical lens and introduces higher geometric concepts, including logical proofs that strongly develop critical thinking skills and processes. Topics covered will include basic terms and definitions of Geometry (points, lines, angles, shapes), reasoning and proofs, transformations, triangles, trigonometry, coordinate geometry, quadrilaterals, similarity, circles, surface area and volume, and statistics. Class time will utilize teaching, collaborative learning experiences, and practical application of concepts. Students will utilize Google classroom and online resources to support at-home learning, in addition to classroom instruction.

Curriculum: BJU Press, Math Medic, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Prerequisite: Algebra 1 or principal approval based on assessment of student transcript.

Lab: Bi-monthly Immersion Lab required Fee: \$180 additional lab fee required

Prerequisite: Algebra 1

Outside commitment: heavy (3 or more hours per week)

Algebra 2

Continuing to strengthen a Biblical worldview for each student in every discipline, this course will build on previous Algebra skills and will develop reasoning skills through the introduction of advanced Algebra concepts. Topics will include: algebraic functions, quadratic equations, polynomials, complex numbers, logarithms and trigonometry.

Students will utilize Google classroom and online resources to support at-home learning, in addition to classroom instruction.

Curriculum: BJU Press, Math Medic, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Lab: Bi-monthly Wednesday Immersion Lab required

Fee: \$180 additional lab fee required

Prerequisite: Algebra 1 and Geometry or principal approval based on assessment of student transcript

Outside commitment: heavy (3 or more hours per week)

Statistics

Statistics provides high school students with a comprehensive understanding of statistical concepts and their practical applications. Students will learn to collect, analyze, and interpret data, gaining proficiency in descriptive statistics, probability theory, and inferential statistics. Through

hands-on activities and real-world examples, students will develop critical thinking skills and the effective communication of their findings. Additionally, this course explores the ethical implications of statistical analysis and promotes a biblical worldview in approaching data interpretation and decision-making, equipping students with the necessary tools to make informed decisions, evaluate information critically, and navigate data-driven challenges in academia and beyond.

Curriculum: Stats Medic, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours per week)

Science

Physical Science

Physical Science is a lab-based, general science course introducing the fundamental concepts of chemistry and physics with a Biblical worldview. Heavy emphasis is placed on developing lab skills and properly collecting and interpreting scientific data.

Curriculum: BJU Press, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Outside commitment: heavy (3 or more hours a week)

Biology

This course examines the fundamentals of cellular biology and the classification of living organisms with a Biblical worldview. Topics covered include the chemistry of living things, cytology, cell processes, photosynthesis, genetics, classification in the plant and animal kingdoms, and an introduction to human body systems.

Curriculum: BJU Press, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Lab: Monthly Immersion Lab required Fee: \$395 additional lab fee required

Outside commitment: heavy (3 or more hours a week)

Chemistry

Through the lens of a Biblical worldview, this course will cover the fundamental concepts of Chemistry, including atomic theory and structure, the phases of matter, kinetic molecular theory, chemical bonding and reactions, acids and bases, and chemical calculations. Lab content will also be heavily emphasized, with instruction on lab safety and preparedness as well as data collection and interpretation.

Curriculum: BJU Press, teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Lab: Monthly Immersion Lab required Fee: \$395 additional lab fee required

Prerequisite or Corequisite: Algebra 2 or principal approval based on student transcript.

It is strongly recommended that students complete **Physical Science** prior to enrolling in this course.

Outside commitment: heavy (3 or more hours a week)

Forensic Science

Forensic Science will deepen students' understanding of physical, biological, and earth sciences as they investigate various crime scenarios. Students will refine their use of the scientific method through analysis of fingerprints, DNA, soils, and fibers and will continue to develop a strong Blblical worldview.

Curriculum: Forensic Science (Bertino and Bertino), teacher-created materials. Other publishers and resources in keeping with the CHESS philosophy of education may be incorporated *or substituted* as needed.

Fee: \$104 additional materials fee required

Outside commitment: heavy (3 or more hours a week)

Immersion Offerings

Science (9th-12th)

Biology Lab (once a month) *Required for all Biology students - \$395

Immersion labs for Biology will allow for extended experiments and collaborative work, enhancing data analysis and the development of critical thinking skills and adding real-world understanding and excitement to concepts covered on Core days. Labs include but are not limited to: Identifying Cellular structure, DNA extraction, Rate of photosynthesis, Microscope skills and Identification of Protozoans in Pond Water, Bacterial Growth Rates, Plant Identification, and Frog Dissection.

Chemistry Lab (once a month) *Required for all Chemistry students - \$395

Immersion labs for Chemistry will allow for extended experiments and collaborative work, enhancing data analysis and the development of critical thinking skills and adding real-world understanding and excitement to concepts covered on Core days. Labs include but are not limited to: Spectrophotometric determination of solution concentrations and contamination, titrations of vitamin C content in juices, and determination of an unknown chemical formula.

Math (9th-12th)

All Math Immersion labs will allow students to complete activities and engage in collaborative work that will deepen understanding and procedural fluency of concepts studied on Core days. Students will participate in extra practice, will receive additional teacher engagement and feedback, and do occasional projects to demonstrate higher comprehension and learning.

Algebra 1 (twice a month) *Required for all Algebra 1 students - \$180 Geometry (twice a month) *Required for all Geometry students - \$180 Algebra 2 (twice a month) *Required for all Algebra 2 students - \$180