



Middle School Course Catalog

Grades 7 and 8

2022 – 2023

The Middle School curriculum consists of a carefully structured, classical, and Christian course of study that introduces students to the “logic of learning” and teaches them how to think.

Central to our grades 7 – 8 curricula are six core academic subjects: Christian studies, English, history, Latin, math, and science. Additionally, in grade 7, Logic is taught concurrently with Latin. The core subjects are typically single-gender classrooms. Students also take one semester of Physical Education each year. In addition to core subjects, all students in grades 7 and 8 will enroll in three semester-long elective classes each year.

Note: Program and course information for grades 5 and 6 will be provided at Curriculum Night.

Core Course Descriptions

All core courses are full-year courses except for Physical Education.

Mathematics

Pre-Algebra: This course provides a strong foundation for success in Algebra 1, and students begin solving algebraic word problems. Critical thinking skills are introduced, and applications to everyday life provide context and relevance. Students entering Pre-Algebra should have command of basic math facts and competency with fractions and decimals. Prerequisite: Accelerated 6

Algebra 1: Algebra is the foundational course for all further mathematics and science courses. Algebra students learn to formulize and generalize the concepts of arithmetic into a set of algorithms useful in other settings. As each skill is introduced and developed, applications to areas of mathematics, science, nature, and everyday life are included. In this course, each student develops his/her abilities in logical, critical thinking, and problem solving. Prerequisite: Pre-Algebra

Geometry: By enhancing logical thinking and deductive reasoning, geometry provides a foundation for problem solving that is necessary for success in subsequent math courses. The first semester focuses on the development of geometric proofs using definitions, properties, postulates, and theorems. Second semester topics include transformations, triangle similarity, right triangle trigonometry, angle and segment relationships in circles, areas of polygons, and volumes of solids. Prerequisite: Algebra 1

Algebra 2: This course includes topics in linear equations, inequalities and functions, systems of linear equations and inequalities, matrices and determinants, quadratic functions, polynomials and polynomial functions, powers, roots and radicals, exponential and logarithmic functions, rational equations and functions, quadratic relations and conic sections, sequences and series, and trigonometric ratios and functions. Prerequisite: Geometry

Science

Students receive a classical science education, inspiring them to greater reverence for God, passion for science, and responsibility in life's decisions. In each course, students learn the grammar of the science by learning the facts, formulas, and principles that compose the scientific body of knowledge. Students also develop their dialectic skills by discussing concepts, constructing mental models, and continuously utilizing the scientific method. In the rhetorical process, students apply critical thinking and problem-solving skills in real-world scenarios, articulate their findings, and present them in verbal and written form. In these Middle School science courses, students engage in traditional laboratory experiments; design investigations; participate in field studies; and learn to use science tools, materials, media, and technological resources to research and discuss relevant topics. Mathematical skills are strengthened through data analysis and modeling.

Introductory Biology and Epidemiology: The study of biology and epidemiology will challenge grade 7 students to think critically as they repeatedly engage in the scientific method. Through experiments, exploratory activities, dissection, and discussion, students will investigate the wonders of God's world. The course covers cell structure, function and division; heredity; structure, function, and diversity of organisms from microbial through plant, animal, and human life. In the second half of the year, students engage in the study of epidemiology. Epidemiologists use the scientific method as "disease detectives" to get to the root of a public health problem or emerging public health event affecting a specific population. The case studies used in this exploration teach students how to analyze and synthesize data, draw relevant conclusions, and better understand the world in which we live.

Earth Science and Engineering Design: The study of Earth science and engineering design challenges grade 8 students to think critically about the world around them as they discover the connections between the Earth systems: atmosphere, biosphere, geosphere, cryosphere, and hydrosphere. This hands-on, project-based course emphasizes scientific inquiry and the engineering design process to develop the mental habits and skills valuable to the work of scientists and engineers. The tremendous character of our Creator God is revealed as students investigate natural phenomena such as plate tectonics, weather, and ocean currents. Throughout the course, students employ the engineering design process to identify needs as well as generate, embody, test, and evaluate concepts. Students practice communication of knowledge through both written and verbal expression using engineering notebooks, class discussions, presentations, notes, and tests.

English

English 7: In grade 7, students follow a literature-centered curriculum that is closely aligned with history, Latin, and Christian studies classes. Class texts span Late Antiquity, the Middle Ages, and the early Renaissance periods. Themes explored throughout the year include identifying what is virtuous and how virtue relates to chivalry, categorizing sins and their effects within a culture dominated by the Church, and analyzing how medieval culture functioned within hierarchies. In addition, the curriculum includes formative writing exercises, summative assignments related to particular modes like narration and argument, grammar, and the study of literary terms. Using the six traits writing model, writing assignments emphasize sentence fluency and word choice. Grammar lessons focus on sentence structure, punctuation, and easily confused words.

English 8: In grade 8, students read and analyze primary sources, novels, short stories, and poetry, in order to explore the idea of identity as American citizens or residents of the United States as well as believers in Christ. Students read American literature covering the time period of Native American legend all the way to Postmodernism. The writing component of the class focuses on literature-based analysis, the six traits writing model, as well as creative expression. Grammar and vocabulary are integrated into the writing program. Students use seminar method to discuss and share ideas.

Latin

Early exposure to Latin prepares students for advanced study of foreign language in Upper School, improves English grammar and vocabulary, and increases understanding of history, language, and culture.

Latin 7: In this course, grade 7 students learn basic elements of Latin grammar and vocabulary, with special emphasis given to proper pronunciation, composition, and listening and reading comprehension. Class discussion incorporates Roman literature, history, and daily life. This course is taught concurrently with Logic.

Latin 8: Grade 8 students build on the fundamental skills acquired in Latin 7 and advance in careful listening and reading, grammar and comprehension, written compositions, and speaking. The curriculum also includes Greek and Roman mythology, literature, history, and connections between modern and ancient languages.

Students who complete the Latin course of instruction in grades 7 and 8 will satisfy the Latin I equivalency prerequisite for Latin II.

History

Medieval Western Civilization: In this course, grade 7 students learn the story of Western Civilization from Diocletian's Great Persecution to Luther and the Protestant Reformation. Special emphasis is placed on the Christianization of the Roman Empire, the development of feudalism, the cultural impact of Charlemagne's empire, the origins of Islam and its broader impact on the West, the establishment of monasteries throughout Europe, the Norman invasion of England, the consequences of The Hundred Years' War, and the *great chain of being* as the dominant form of medieval thinking. Students read historical surveys of events and biographical sketches of key historical figures as well as primary source materials. Class discussions utilize the Socratic seminar method which requires careful reading, logical thinking, and rhetorical skills as students engage one another.

Modern Western Civilization: In this course, grade 8 students learn the story of the birth of the modern world, beginning with the gradual rejection of medieval thinking during the Enlightenment and finishing with the Cold War. Students study the novel ideas and themes of the modern world, emphasizing the impact of the Age of Exploration, the Enlightenment, the American Revolution, the Industrial Revolution, and World Wars I and II. Students examine the transition from medieval thinking to modern thinking as they read writings such as the works of Voltaire, Thomas Hobbes, and John Locke. Students also read biographical sketches of historical figures and will engage in Socratic seminar discussion, which requires logical thinking and rhetorical skills as they engage one another. At the conclusion of the course, the students will be able to trace the significant developments of thought from the end of the ancient world to the modern day, giving them penetrating insight into why the world is the way it is. *Students also fulfill the Washington State history and government high school graduation requirement through in-class instruction and assessment.*

Christian Studies

Biblical Theology 7: Old Testament: In grade 7, students begin a two-year study of the Bible. This class offers an introduction to the Old Testament and traces the narrative of salvation history from creation to the establishment, judgment, and restoration of Israel. Throughout the year, students examine the story as well as the major themes of the Old Testament, paying particular attention to the questions: Who is God? What does it mean to be the covenant people of God? How do I use resources use to study the Bible? What is the basic storyline of the Old Testament? And how does the Old Testament help me to understand Jesus Christ?

Biblical Theology 8: New Testament: In grade 8, students complete a two-year study of the Bible. This class offers an introduction to the New Testament, tracing the narrative of salvation history from the birth of Jesus to the establishment of the Church. Students explore the cultural background of the New Testament, examine the Gospels, discuss the growth of the Church in the book of Acts, and examine basic Christian belief and practice as presented in the Epistles. Throughout the year, students focus on the following essential questions: Who is Jesus? How do I use resources to study the Bible? What is the basic narrative of the New Testament? What is the Church? And how do our beliefs impact our actions?

Logic: This grade 7 course addresses the fundamentals of thinking well. Students will learn how to define their terms and compose accurate statements, how to construct arguments by example, analogy, and authority, and how to detect fallacies in an argument. Students will apply their learning through examination of statements and arguments in literature and through Socratic discussion in their classes. This course is taught concurrently with Latin 7.

Physical Education

Physical Education: In this course, students participate in a wide range of sports and activities to improve physical fitness as they learn to serve the Lord and each other, discovering activities and sports which they can enjoy. Sports and activities may include soccer, volleyball, basketball, floor hockey, softball, badminton, flag football, track & field, dance, and gym games. Physical Education students also learn about human physiology, good health, and sound dietary habits as an acknowledgement of the body as God's holy temple. Physical Education classes are gender-separated. Students are enrolled one semester each year.

Elective Course Descriptions

To enrich the core curricula, Middle School offers a variety of elective classes from which grades 7 – 8 students choose to study. Each student will be enrolled in one or two electives each semester (depending on when he/she is enrolled in P.E.) for a total of three electives each year. As a general rule, there is no homework given in elective courses, though in rare cases, minimal outside work may be required. Elective courses may be mixed gender classes. *All electives are one semester courses; band students are recommended to enroll both semesters.*

Fine Arts Electives

The Bear Creek School highly values the arts as part of a classical education. Through education in the arts, students develop personal expression, creative thinking, imaginative communication, and intellectual curiosity. An effective and challenging arts curriculum provides students with opportunities to perform and create in visual art, music, and drama; perceive and respond to each of the arts disciplines; understand the role of the arts in our world; and make connections between the arts and other educational disciplines.

Students in Middle School are required to choose *at least one semester each year* from the following arts electives:

Art: Art students focus on creativity, originality, effort, and perseverance while exploring drawing, painting, collage, and mixed media. Students develop craftsmanship, skill, consistency, and correct terminology, while learning the seven elements and principles of art. Students also have the opportunity to show their work in Bear Creek’s annual art show. This course is offered both semesters and may be repeated.

Band: Band students continue to build skills on their instruments with emphasis on developing a good concept of ensemble sound and tone quality. In addition to a Christmas concert and a spring concert, the band participates in at least one event outside of school, and participants are invited to join the Pep Band during basketball season. This course is offered both semesters (recommended as a full-year course) and may be repeated. Prerequisite: Middle School band is open to any student who participated in grade 6 band. Students who did not play a band instrument in grade 6 should contact the band director for information about how they may still be eligible to participate.

Choir: Choir students can be creative in an environment full of encouragement. Students learn and practice basic choral techniques and are exposed to different types of music. Though there is certainly an independent element to singing, much of what is accomplished as a choir is attained as a team. Middle School choir performs at a Christmas concert and participates in other local performances. This course is offered both semesters (recommended as a full-year course) and may be repeated.

Drama: The course is designed to introduce students to the art of theatrical storytelling. Students will engage the questions: What does it mean to tell a good story? What can theater teach us about truth, beauty, and goodness? Students will engage in the history and technique of theater and be given a chance to showcase their own performance techniques. A production is performed at the conclusion of the semester. This course is offered both semesters and may be repeated.

General Electives

Students may choose additional electives from the following, if needed to complete the three-semester requirement.

Introduction to Computer Programming: This class introduces students to basic programming principles. Students also learn and practice elements of the software development process, including commenting, testing, error handling, basic debugging, and game development. No prior coding experience necessary. Students may enroll in this class once in either grade 7 or 8.

Intermediate Computer Programming: In this class, students build upon the skills they acquired through Introduction to Computer Programming or other past programming experiences. It will be much less handholding and much more independence than in the introductory class. Students extend their designing, coding, debugging, and testing skills as they apply what they learn to larger projects. Students may enroll in this class once in either grade 7 or 8. Prior programming experience will be assumed. Prerequisite: Introduction to Computer Programming or other programming experience.

Advanced Computer Programming: In this class, students will study and complete projects in advanced topics like compression, imaging, recursion, performance, and class design. The focus is building up the skills to implement a substantial independent software project which students will present to the class. Students may enroll in this class once in either grade 7 or 8. This class assumes significant programming experience. Prerequisite: Intermediate Computer Programming

Creation Lab: In this course, students learn not only the skills and tools with which to be creators and innovators, but also the design thinking process needed to solve real-world problems for real people. From cardboard prototypes to interactive circuitry and 3D printing, students learn to apply design processes in a hands-on, collaborative environment. Students may enroll in this class once in either grade 7 or 8.

Creative Writing Lab: Students in this class write poetry, reflections, fiction, and creative nonfiction pieces. This class encourages students to use their voices, imaginations, words, and ideas as they generate original writing pieces. Students may enroll in this class once in either grade 7 or 8.

Digital Storytelling: In this course, students integrate elements of design and technology using software applications. Students also learn to use digital single lens reflex (DSLR) cameras and learn basic photo composition. By the end of the semester, students will provide a digital glimpse into the life of a Middle School student.

Rhetoric: Rhetoric is the art of effective speaking. Students will develop writing, public speaking, and critical thinking skills by composing speeches and analyzing the work of others. To this end, students will build an analytic vocabulary for stylistic devices and the structure of arguments. The course will include informative, entertaining, and persuasive speeches as well as an in-class debate. Students will have the opportunity to present their work for parents and peers at an end of the semester performance. Students may enroll in this class once in either grade 7 or 8.

Robotics: Students in this class explore real-world challenges using robotics to investigate possible solutions. This class encourages students to use collaboration, creativity, exploration, and hands-on problem solving. Students may enroll in this class once in either grade 7 or 8.

Strength Training: Students participate in activities to increase body strength by training with weights and plyometrics. Proper technique and methods are emphasized. Since students are still in the early stages of adolescence, they use less weight and more repetitions. Emphasis is on improved knowledge and body strength over the course of the semester. Students learn about the muscular system and names of several muscle groups.

Study Hall: Because they attend regularly scheduled Office Hours, most students do not need to take a study hall and would prefer to take advantage of the many interesting electives we offer. However, students who need additional study time may choose this option that provides a quiet, independent time for students to read, complete homework, and study.

Course Sequence: Grades 7 and 8

Grade 7

- Math (see sequence)
- Introductory Biology and Epidemiology
- English 7
- Logic (fall or spring)
- Latin 7 (fall or spring)
- Medieval Western Civilization
- Biblical Theology 7: Old Testament
- Physical Education (fall or spring)

Grade 8

- Math (see sequence)
- Earth Science and Engineering Design
- English 8
- Latin 8
- Modern Western Civilization
- Biblical Theology 8: New Testament
- Physical Education (fall or spring)

Mathematics Course Sequence

- Pre-Algebra
- Algebra 1
- Geometry
- Algebra 2

Fine Arts Electives

- Art
- Band
- Choir
- Drama

General Electives

- Introduction to Computer Programming
- Intermediate Computer Programming
- Advanced Computer Programming
- Creation Lab
- Creative Writing Lab
- Digital Storytelling
- Rhetoric
- Robotics
- Strength Training
- Study Hall