Joliet Public Schools

Middle School // High School Course Catalog

September 2025

Agricultural Education

Agriculture courses cover a wide range of agricultural topics, including plant and animal science, production, and processing; agricultural mechanics, including tool and machine operation and repair; construction and repair of farm structures; business operations and management; and the careers available in the agricultural industry. They may also include topics such as chemical and soil science, ecology, agricultural marketing, and veterinary science.

Ag Ed I

In this Introductory course of Agriculture, we will cover many things that will build the basis for your Agriculture knowledge. Some of the things that we will introduce in this course are leadership skills, plant sciences, animal sciences, speaking, and beginner woodworking. You will also have the opportunity to join FFA if you would like to.

Prerequisites – NONE

Open to – 9th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Ag Ed II

In this exploratory course of Agriculture we will cover many things that will build the basis for your Agriculture knowledge. Some of the things that we will focus on in this course are leadership skills, plant sciences, animal sciences, speaking, and vet science. You will also have the opportunity to join FFA if you would like to or haven't yet.

Prerequisites – NONE

Open to – 10th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Ag Ed III

In this Agriculture course we will cover many things that will build the basis for your Agriculture knowledge. Some of the things that we will introduce in this course are leadership skills, plant sciences, animal sciences, small engines, and electrical systems. You will also have the opportunity to join FFA if you would like to.

Prerequisites – NONE

Open to – 11th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Ag Ed IV

In this Agriculture course we will cover many things that will build the basis for your Agriculture knowledge. Some of the things that we will focus on in this course are leadership skills, resume building, vet science, and woodworking. You will also have the opportunity to join FFA if you would like to or haven't yet.

Prerequisites – NONE

Open to – 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Horticulture

In this Horticulture course we will cover many things that will build your welding skills. Some of the things that you will learn are floriculture, design, plant systems, record keeping, business skills, and growing plants. You will also have the opportunity to join FFA if you would like too.

Prerequisites – NONE

Open to – 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Welding

In this Welding course we will cover many things that will build your welding skills. Some of the things that you will learn are GMAW, MIG, and TIG welding processes. You will also learn how to use oxy acetylene and plasma cutting systems. You will also have the opportunity to join FFA if you would like too.

Prerequisites – NONE

Open to – 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

8th Grade Agricultural

In this exploratory course of Agriculture we will cover many things that will build the basis for your Agriculture knowledge. Some of the things that we will explore in this course are leadership skills, plant sciences, animal science, speaking, and beginner shop skills. You will also have the opportunity to join FFA if you would like to.

Prerequisites – NONE

Open to – 8th

Course Length – Semester

Fulfill Credit Requirement – Elective

Architecture & Construction

Our high school architecture and construction program introduces students to the principles of design, building, and structural engineering. Courses cover topics such as architectural drawing, drafting, construction technology, and project management. Students gain hands-on experience with tools, materials, and software used in the construction industry, as well as an understanding of sustainable design and building practices. These classes prepare students for further education in architecture, engineering, or skilled trades, offering pathways to careers in construction, urban planning, and design.

Construction

Students have hands-on opportunities to learn all phases of basic residential construction, including carpentry, drywall, electrical, flooring, painting, plumbing, roofing, masonry, welding, and reading blueprints. During the first part of the course, students learn about construction safety, foundations, framing, and proper use of tools. Then students have the opportunity to make practical application of their classroom studies on a construction project. Projects may include building sawhorses, scale model houses, storage sheds, remodeling (on or off-site), simulated bathroom construction, and other projects (Play Houses) as available.This competency-based course prepares students for entry-level positions in the construction industry. Integrated throughout the course are career technical education standards which include basic academic skills, communication, career planning, technology, problem solving, safety, responsibility, ethics, teamwork, and technical knowledge.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Woods I

This course introduces students to the various kinds of woods used in industry and offers experience in using selected woodworking tools. Students design and construct one or more projects. Correct and safe use of tools and equipment is emphasized. As students advance, they focus on learning the terminology to use power tools successfully, developing skills to safely use these tools in the workshop and becoming familiar with various kinds of wood-finishing materials.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Art

Our middle and high school art program offers a wide range of courses designed to develop creativity, technical skills, and art appreciation. Students can explore various disciplines, including drawing, painting, sculpture, photography, digital art, and ceramics. Each class provides hands-on experience and encourages individual expression while building foundational knowledge of art history and contemporary practices. Whether you're a beginner or an advanced artist, our courses will help you refine your talents and discover new ways to communicate through visual arts.

High School Art - Other Media

At the conclusion of this course students will have been exposed to basic materials and tools for various art medias, such as: ceramics, sculpture, beadwork, plaster, printmaking, paper tooling, leatherworking etc. Students will explore various material techniques and applications. Students will produce a variety of work in 2-dimensional and 3- dimensional style. Student bell work will be used to review art foundations and concepts, explore creative ideas, respond to and interpret art and apply observational drawing skills.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Fine Arts

High School Art - Drawing // Painting

At the conclusion of this course students will have been exposed to basic materials and tools for drawing and painting with graphite, pen and ink, charcoal, colored pencil, acrylics, watercolor and pastels. Students

will explore various drawing and painting techniques and applications. Students will produce popular subjects such as landscape, still life, abstractions, portraiture, and figure drawings. Student bellwork will be used to review art fundamentals and concepts, explore creative ideas, respond to and interpret art and apply observational drawing skills.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Fine Arts

Middle School Art

At the conclusion of middle school students will have been exposed to the foundations of art including the elements of art (6th grade), the principles of design (7th grade), and fundamentals (8th grade). Students will explore various media and tools to produce unique artwork utilizing the elements, principles, and fundamentals. Student bell work will be used to review art concepts, gain inspiration from popular artists and art movements, and explore creative ideas, respond to and interpret art and apply observational drawing skills.

Prerequisites – NONE

Open to – 6th, 7th, 8th

Course Length – Semester (1/2 Credit)

Business Education

Our high school business education program provides students with essential skills and knowledge for success in the modern economy. Courses cover topics such as accounting, marketing, entrepreneurship, personal finance, and business management. Students learn practical skills like budgeting, financial planning, business communication, and how to start and manage their own businesses. Advanced courses and career-focused opportunities help prepare students for further education or entry into the business world. Whether interested in corporate careers or running a small business, these classes offer valuable insights into the world of commerce.

Intro to Business/Marketing

The course offers students an understanding of basic economics , business organization and management including operations and technology alongside financial management. Student driven projects may include participation at Econoquest, Food Truck simulation, local business tours and a personal business project. Soft skills will be enhanced throughout the course though interactive lessons. A working resume in combination with a dynamic vision board will be developed by the students. Small business startup information will also be presented.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Personal Finance

This course is designed to teach you what personal finance is, how to budget, how to save money, about credit and debt, and all the different aspects of how to earn it, save it, and spend it. By the time you leave this course, you will feel confident about being smart with your finances. You will start to apply what you learn to YOUR life right now WHILE you are in this class. Classroom notes, short videos, and classroom activities that bring our learning to life are used daily.

Prerequisites – NONE

Open to – 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Computer & Information Sciences

Our high school computer science program offers a range of courses that introduce students to the fundamentals of programming, problem-solving, and technology innovation. Students can explore topics such as coding, web development, data structures, algorithms, and cybersecurity. Advanced courses,

including AP Computer Science, provide in-depth knowledge and practical experience with software development and computational thinking. Whether you're a beginner or looking to deepen your skills, these courses will prepare you for future studies and careers in technology, engineering, and related fields.

AP Computer Science

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

Prerequisites – NONE, Algebra I encouraged

Open to – 10th or Principal approval

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science, Elective

AP Computer Science

In Computer Applications courses, students acquire knowledge of and experience in the proper and efficient use of previously written software packages. These courses explore a wide range of applications, including (but not limited to) word-processing, spreadsheet, graphics, and database programs, and they may also cover the use of electronic mail and desktop publishing.

Prerequisites – NONE

Open to – 8th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – High School Computer Applications Credit

English

Our English program offers a wide array of courses focused on developing reading, writing, and critical thinking skills. Students engage with classic and contemporary literature, improve writing through various styles such as essays, creative writing, and research papers, and refine their understanding of grammar and vocabulary. Advanced courses, including AP and honors options, challenge students with in-depth literary analysis and advanced composition. Whether exploring the power of storytelling or honing communication skills, these classes prepare students for academic success and thoughtful engagement with the world.

Creative Writing

This course teaches students the art of crafting fictional short stories. Students will learn about writing dialogue, creating characters, setting, and plot, through writing exercises and studying short stories as mentor texts. After learning these skills, students will write a full short story which will then be workshopped in class where students will be guided in giving each other constructive feedback. Through this process, editing and revising skills will be learned.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Elective

Title English 9/10

This class focuses on building each students reading and writing comprehension skills through close reading literature excerpts, short stories, poems, and novels. Through reading out loud and reading silently with questions to guide their comprehension of texts, students learn to build on their prior knowledge to achieve grade level English skills. Key concepts focused on include the following: author's purpose, point of view, story structures/plot, characterization, and main idea. Grammar skills such as sentence structure, parts of speech, punctuation, and 9th/10th grade vocabulary are focused on throughout the year as a part of each unit.

Prerequisites – Principal recommendation

Open to – 9th, 10th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

English 9

This is the base level English course for Freshmen. This course introduces students to whole novel analysis, argumentative writing, symbol identification, and grammar skills. This course moves students away from objective plot discovery and moves them toward character analysis. Essay writing, story writing, class discussion, and project based learning are utilized in this course for assessment and progress monitoring.

Prerequisites – NONE

Open to – 9th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

English 10

In this class we read a variety of literature from essays, short stories, and novels to poems, folklore, and film. Students will hone their close-reading skills and build upon previous knowledge of grammatical concepts. The class focuses on storytelling and the traditions of storytelling throughout the world, contemplating the questions of why humans tell stories, what stories are trying to teach us, and what tools storytellers/authors use to convey their messages to their audience. These tools include word choice/diction, sentence structure, sensory details, figurative language, dialogue structure, ethos, pathos, and logos, among others. Students will learn to not only recognize these things in literature, but will learn how to use them in their own writing of both essays and creative works.

Prerequisites – English 9

Open to – 10th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

English 11

This is the base level English course for Juniors. This course covers American authors (prose and poetry) with an emphasis on classic American novels. This course promotes analytical writing, creative writing, research writing, and public speaking. The Junior Research Project is a big part of this course.

Prerequisites – NONE

Open to – 11th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

Honors English 11

This is the advanced level English course for Juniors. This course covers American authors (prose and poetry) with an emphasis on classic American novels. This course promotes advanced analytical writing, creative writing, research writing, and public speaking. The Junior Research Project is a big part of this course.

Prerequisites – NONE

Open to – 11th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

English 12

This is the base level English course for Seniors. This course covers European Literature (prose and poetry) from Beowulf to 1984. This course uses discussion based learning, creative writing, public speaking, and interpretation of texts to extend students' knowledge and ability. This course also prepares and guides students through the college essay and resume writing techniques and strategies.

Prerequisites – NONE

Open to – 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

AP English 12

This is the advance level English course for Seniors. This course covers European Literature (prose and poetry) from Beowulf to 1984. This class uses discussion based learning, creative writing, public speaking, and advanced interpretation/analysis of texts to extend students' knowledge and ability. This course prepares students for the AP Literature and Composition test in May.

Prerequisites – NONE

Open to – 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – English

Poetry

In this course we will be exploring poetry in its many forms, from structured sonnets to unstructured free verse. Poems and poets will be analyzed and discussed through in-class verbal discussions, as well as through written essays. Students will write poems in the style of each poet studied. These poems will be workshopped in class where students will be guided in giving each other constructive feedback and learning editing skills. Some of the poets studied include the following: John Keats, Elizabeth Bishop, Joy Harjo, Greg Pape, Sherwin Bitsui, Douglas Manuel, Kathleen Driscoll, William Wordsworth, Richard Hugo, Melissa Kwansy.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Elective

Science Fiction

This course delves into the genre of science fiction in every form and function. In this course, students will look at the structure of storytelling by reading, watching, and analyzing other sci-fi stories. They will use their classmates as a peer review group, project partners, and discussion participants. Students will ultimately write their own sci-fi short story in this course.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Elective

Mass Media

This is a high school level filmmaking and media creation course. There is a high degree of collaborative group projects, scriptwriting, production, filming, editing, recording, mixing, acting, etc. This class will produce a lot of content for Joliet with short films, sketches, announcements, interviews, and special interest stories. Students should have a basic understanding of the filmmaking process and a interest in film production to be successful in this class.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Elective

English 8

In this class we read fiction and non-fiction literature excerpts, short stories, plays/screenplays, and poems, as well as novels later in the year. Students will build upon previous knowledge of grammatical and literary concepts. Grade level vocabulary and spelling will be focused on throughout the year. Essential questions explored in relation to literature include: What attracts us to the mysterious?, What makes you, you?, Why do we take chances?, How do you choose the right words?, Who are you in a crisis?, and What do other worlds teach us about our own?

Prerequisites – English 7

Open to – 8th

Course Length – Year Long (1 Credit)

English 6 & 7

All students will take ELA and LIT in middle school, grades 6 and 7. We will cover all of the Montana State Standards for reading, writing, speaking, and mechanics. Students will read novels, short stories, and use StudySync curriculum to meet these standards. They will also write one essay per quarter.

Prerequisites – NOne

Open to – 6th & 7th Grade

Course Length – Year Long (1 Credit)

Foreign Language

Our high school foreign language program offers students the opportunity to develop proficiency in a new language while gaining cultural awareness. In person courses are available in Spanish. Distance courses are available in languages such as Spanish, French, German, and more, with an emphasis on speaking, listening, reading, and writing. These courses prepare students for global communication, travel, and future academic or career opportunities in a diverse world.

Spanish I

Students will be able to understand the foreign language, have basic communication in Spanish using their knowledge of the vocabulary learned. Students will be able to express feelings, likes and dislikes, create

simple descriptions of people and things within a context, express basic needs, describe a problem and suggest or recommend a solution.

Prerequisites – NONE
Open to – 8th, 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Spanish II

Students will be able to understand the foreign language, have intermediate communication in Spanish using their knowledge of the vocabulary learned. Students will be able to express feelings, likes and dislikes, create simple descriptions of people and things within a context, express basic needs, describe a problem and suggest or recommend a solution on a more advanced level.

Prerequisites – Spanish I or demonstrated knowledge of Spanish I skills

Open to – 8th, 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Health Enhancement

Our high school health enhancement program promotes physical fitness, mental well-being, and overall healthy lifestyles. Courses combine physical education with health education, covering topics such as nutrition, personal wellness, mental health, substance abuse prevention, and human development. Students participate in various physical activities to build fitness and teamwork, while also learning important life skills for maintaining long-term health. These courses aim to empower students with the knowledge and habits to lead balanced, active, and healthy lives both during high school and beyond.

Core & Cardio

This course is activity based focusing on improving personal fitness as a lifetime activity. Activities will include core workouts, Pilates, step aerobics, weight training, cardio kickboxing, and yoga. This course will emphasize the five components of fitness: cardiovascular fitness, muscular endurance, muscular strength, flexibility, and body composition. Recreational activities are also included.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Health/PE

Health 9

In 9th grade, our health education curriculum enhances students' understanding of wellness across several key areas: Physical Fitness, Nutrition, Mental and Emotional Health, Family and Social Health, and Body Systems. Through this comprehensive approach, we empower students to make informed choices for their well-being.

Prerequisites – NONE

Open to – 9th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Health/PE

Health 10

In 10th grade, our health education curriculum deepens students' understanding of wellness by exploring essential topics, including the Reproductive System, Growth and Development, Medicines and Drugs, Diseases and Disorders, and Injury Prevention and Safety. This comprehensive approach equips students with the knowledge they need to make informed health decisions.

Prerequisites – Health 9

Open to – 10th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Health/PE

Weights

Weight room safety, warm-up/cool down procedures, lifting technique and safety for all lifts, major muscle identification, and individual goal setting

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Elective

6th, 7th, 8th Grade Health/PE

Health Enhancement courses combine the topics of Health Education courses (nutrition, mental health, stress management, substance abuse prevention, disease prevention, first aid, anatomy-body systems, community health, personal hygiene etc.) with an active component (typically including aerobic activity) with the intention of conveying the importance of life-long wellness habits.

Prerequisites – NONE

Course Length – Year Long (1 Credit)

Library Sciences

Our middle and high school library sciences program equips students with essential skills in research, information literacy, and digital resource management. Courses cover topics such as navigating databases, evaluating sources, organizing information, and understanding intellectual property. Students will learn how to efficiently access and analyze information in both print and digital formats, fostering critical thinking and lifelong learning skills. These classes are ideal for students interested in careers in information management, library services, or any field that values research and data organization.

Library Studies

Students learn the basics of collection controls through check in/out procedures, manage a portion of the library, and assist with instruction of lower elementary classes if assigned during their library time. Potentially learns methods of repair, new material preparation, assisting with weeding activities, computer lab maintenance, and selection of new materials. Student assessment is primarily active participation based with periodic checks on workmanship within the assigned section of the library.

Prerequisites – Library Aide

Open to – 11th, 12th, or Principal approval

Course Length – Semester (1/2 Credit) or Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Library Aide

Students assist with library duties such as shelving books, assisting students needing help with computer login, straightening a section of the library shelving, and when finished use remaining time for other studies or reading.

Prerequisites – None

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit) or Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Library Literature

This course is designed to be an avenue for students who wish to have time to read books that they are interested in and never seem to have time to do while in school. Students select books based on their interests throughout the course. Students are challenged to select a book outside of their interest on one selection per semester. Students are graded based on their participation through weekly book logs and through the creation of book trailers using various video creation software (such as Animoto, WeVideo, OpenShot), which are critiqued by peers and posted as MP4 works on the local library website twice per semester.

Prerequisites – None

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit) or Year Long (1 Credit)

Fulfill Credit Requirement – Elective

Mathematics

Our middle and high school mathematics program offers a comprehensive selection of courses designed to build logical reasoning, problem-solving, and analytical skills. Students can explore foundational subjects like Algebra, Geometry, and Pre-Calculus, as well as advanced topics such as Calculus, Statistics, and AP-level courses. Each class is tailored to meet students at their current level and prepare them for college and career readiness. Whether you're developing basic math skills or tackling advanced concepts, these courses will equip you with the tools to excel in academics and beyond.

Algebra I

Algebra 1 introduces students to variables, algebraic expressions, equations, inequalities, functions, and all their multiple representations. In this class, students will develop the ability to explore and solve real-world application problems, demonstrate the appropriate use of graphing calculators, and communicate mathematical ideas clearly. This course lays the foundation for mathematical literacy that will help students be successful in every subsequent course in mathematics.

Prerequisites – Pre-Algebra or equivalent

Open to – 9th, 10th (7th & 8th with principal approval)

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Math

Algebra II

This course is designed to build on algebraic and geometric concepts. It develops advanced algebra skills such as systems of equations, advanced polynomials, imaginary and complex numbers, quadratics, and

concepts and includes the study of trigonometric functions. It also introduces matrices and their properties. The content of this course is important for a student's success on both the ACT and SAT math portions. It also helps each student to ready themselves for future college courses or career choices.

Prerequisites – Algebra, Geometry

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Math

Pre-Algebra

Students will represent and solve real-world problems through the study of Pre-Algebra. Students will develop skills intended to prepare students for success in high school Algebra and Geometry courses. Key algebraic topics include applications of real numbers, solving linear equations, using functions, graphing data, and solving systems. Key geometric topics include congruence and similarity, use of the Pythagorean Theorem, and solving problems involving surface area and volume.

Prerequisites – 7th Grade Math

Open to – 8th

Course Length – Year Long (1 Credit)

Pre-Calculus

Pre-Calculus (year-long) is aligned to college content standards and the College Board AP PreCalculus Standards for Mathematical Practices. This course is an AP rigorous option taken after Algebra 2 and prior to AP Calculus AB/BC in high school or in preparation for a collegiate calculus course. Students will analyze relations, functions and their graphs (to include polynomial, rational, trigonometric, exponential, logarithmic, and piecewise functions), and define trigonometric ratios using the unit circle and analyze trigonometric functions. These concepts build on what was learned in Algebra 2 while also setting a foundation for skills necessary to be successful in college-level Calculus I or high school AP Calculus AB or BC.

Prerequisites – Algebra 2

Open to – 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Math

AP Calculus

AP Calculus AB/BC is an introductory college-level calculus course. Students cultivate their understanding of differential and integral calculus through engaging with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions as they explore concepts like change, limits, and the analysis of functions.

Prerequisites – Pre-Calculus

Open to – 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Math

Dual Credit College Algebra

This class is offered for Dual Credit. Credit can be earned on the JHS transcript and on a MSU Billings Transcript. The college listing for the class is Math 121- College Algebra (3 college credits). Covers the concepts of functions, complex numbers, and solving basic system of equations. Investigates linear, quadratic, polynomial, exponential, and logarithmic functions.

Prerequisites – Algebra 2 with a ‘C’ or better AND 2.5GPA or better

Open to – 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Math

Geometry

Students will describe our physical world through the study of Euclidean geometry. Students will develop skills in spatial visualization, logical reasoning, and deductive proofs. Scope of the content includes points, lines, planes, angles, two-dimensional figures, and three-dimensional figures. Key topics include measurement, parallel and perpendicular, congruence and similarity, triangles, quadrilaterals, circles, symmetry, transformations, area, volume, and basic trigonometry.

Prerequisites – Algebra I

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Math

Consumer Math

Students will use mathematics to solve financial problems. Students will develop quantitative skills for making practical decisions in their own lives. Students will use technology, especially calculators and spreadsheets, to analyze and solve problems. Key topics include employment and earnings, shopping and unit prices, markup and discount, taxes, budgeting, compound interest, investments, credit, and banking.

Prerequisites – 8th Grade Math

Open to – 9th, 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Math

6th Grade Math

Instructional time will emphasize five areas: (1) performing all four operations with integers, positive decimals and positive fractions with procedural fluency; (2) exploring and applying concepts of ratios, rates and percent to solve problems; (3) creating, interpreting and using expressions and equations; (4) extending geometric reasoning to plotting points on the coordinate plane, area and volume of geometric

figures and (5) extending understanding of statistical thinking. Curricular content will integrate critical-thinking, problem-solving, and workforce-literacy skills; communication, reading, and writing skills; mathematics skills; collaboration skills; contextual and applied-learning skills; technology.

Prerequisites – None

Open to – 6th

Course Length – Year Long

6th Grade Numeracy

Numeracy is the ability to understand and work with numbers. The primary goals of this course are to stimulate mathematical fluency, develop number sense, and extend opportunities for applying concepts in project based learning. Greater individualized instruction with IXL is incorporated to bridge gaps and challenge all students at their current mathematical level. Small group engagement is paramount in the instructional strategy of the course and will include math based games. The class meets 3x per week for a semester and then 2x per week for a semester. Projects include Cooking with Fractions, Coordinate City, Coordinate Plane String Art, Statistical Questions, Pizza Project, Star Quilt and 3D Object Construction. Woven into the course are options for student choice in learning structures and project specifics.

Prerequisites – Concurrent enrollment in 6th grade math

Open to – 6th

Course Length – Year Long

7th Grade Math

Instruction will focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Inquiry based problem solving strategies with collaborative learning will be used throughout the year. This is a rigorous curriculum coupled with 7th grade numeracy and application of learning with individual and group projects.

Prerequisites – None

Open to – 7th

Course Length – Year Long

7th Grade Numeracy

Numeracy is the ability to understand and work with numbers. The primary goals of this course are to stimulate mathematical fluency, develop number sense, and extend opportunities for applying concepts in project based learning. Greater individualized instruction with IXL is incorporated to bridge gaps and challenge all students at their current mathematical level. Small group engagement is paramount in the instructional strategy of the course. The class meets 3x per week for a semester and then 2x per week for a semester. Projects include designing and constructing a model tiny home, art in math and an event planning project.

Prerequisites – Concurrent enrollment in 7th grade math

Open to – 7th

Course Length – Year Long

Science

Our middle and high school science curriculum provides a diverse selection of courses that foster critical thinking, problem-solving, and a deeper understanding of the natural world. Students can engage in subjects such as biology, chemistry, physics, environmental science, and earth science, with opportunities for both laboratory-based experimentation and theoretical exploration. Advanced courses, including AP and honors options, are available for those seeking to challenge themselves further. These classes prepare students for college-level studies and careers in STEM fields, while nurturing curiosity about how the universe works.

Earth Science

This course will provide students with a fundamental understanding of Earth's structure, properties, and processes. We will be exploring multiple important concepts including astronomy, plate tectonics, weather and climate, geology, surface processes, and natural selection.

Prerequisites – NONE

Open to – 9th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science

Biology

Biology introduces students to the various systems that make up our living world by providing information regarding the fundamental concept of life and life processes. This is a year-long high school science course required to graduate from Joliet High School. This course includes (but is not restricted to) topics such as cell structure and function, general plant and animal physiology, taxonomy, evolution, ecology, and diversity.

Prerequisites – NONE

Open to – 10th or Principal approval

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science

AP or Honors Biology

Advanced Placement (AP) or Honors Biology is an introductory college-level course that also satisfies the Joliet High School biology requirement to graduate. This year-long course is aligned to the College Board AP Biology Curriculum Framework. Students cultivate their understanding of biology through inquiry-based investigations as they explore topics like evolution, energetics, information storage and transfer, and system interactions. Twenty-five percent of instructional time is devoted to hands-on laboratory work with an emphasis on inquiry-based investigations. Investigations require students to ask questions, make observations and predictions, design experiments, and analyze data.

Prerequisites – NONE

Open to – 10th or Principal approval

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science

Chemistry

This course will provide students with a fundamental understanding of general chemistry. Quantitative and qualitative elements of chemistry will be explored, including the properties of matter, the organization of the periodic table, the properties of atoms, chemical nomenclature, stoichiometry, thermodynamics, chemical bonding, and acid-base chemistry.

Prerequisites – NONE

Open to – 10th, 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science

Physics

This course will provide students with an introductory understanding of physics. Quantitative and qualitative elements of physics will be explored, including the properties of waves, one-and two-dimensional kinematics, circular motion and rotational kinematics, and forces.

Prerequisites – NONE

Open to – 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science

Astronomy

This course will provide students with a fundamental understanding of important quantitative and qualitative aspects of astronomy. Students will learn about the progression of astronomy as a scientific field, tools and techniques used by astronomers, objects within and outside the solar system, the life cycle of stars, characteristics of galaxies, and the universe as a whole.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Science

Ecology

This course will provide students with a fundamental understanding of ecological principles. This will include adaptations and evolution, population dynamics, competition, life history strategies, characteristics of communities, coevolution within communities, behavioral ecology, species diversity, and human global ecology. Students will also learn how to read and interpret various scientific articles, and how to recognize multiple native vertebrate species including fish, birds, mammals, reptiles, and amphibians.

Prerequisites – NONE

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Science

Anatomy & Physiology

This course will provide students with a fundamental understanding of human anatomy and physiology. This will include the skeletal, muscular, nervous, cardiovascular, digestive, reproductive, and endocrine systems, as well as a study of different cell and tissue types, special senses, and more.

Prerequisites – NONE

Open to – 11th, 12th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Science

Physical Science (8th Grade)

Physical Science explores the relationships between matter and energy. This is a year-long introductory middle school science course. The focus of this class is on basic physics and chemistry topics. Students will investigate force and motion, the chemical and physical properties of matter, the ways in which matter and energy interact within the natural world and the forms and properties of energy.

Prerequisites – NONE

Open to – 8th Grade

Course Length – Year Long (1 Credit)

Life Science (7th Grade)

This Life Science course offers an in-depth exploration into the fascinating world of living organisms and their interactions with the environment. Designed for middle school students, this course covers a broad spectrum of biological concepts, from the molecular and cellular foundations of life to the complex ecosystems that sustain life on Earth.

Prerequisites – NONE

Open to – 7th Grade

Course Length – Year Long

Social Science

Our middle and high school social sciences program offers a diverse range of courses aimed at fostering a deeper understanding of human societies, cultures, and histories. Students can explore subjects such as World History, U.S. History, Government, Economics, Psychology, and Sociology. These courses encourage critical thinking, discussion, and analysis of past and present events, political systems, and social dynamics. Advanced Placement (AP) and honors courses are available for those seeking a more rigorous academic experience. These classes prepare students to be informed, engaged citizens with a global perspective.

World History

In this course we will explore the historical events that had major impacts on humanity. We will look at major rivers that have provided the human habitat that allowed for the earliest civilizations. The class will explore the five major world religions. The class also explores the different revolutions that have occurred in our history. Revolutions like the Agricultural, industrial, as well as political and social revolutions are examined in this course.

Prerequisites – None

Open to – 9th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Social Studies

American History

In this course, we will explore the patterns of world history in order to provide you with a better understanding of America's past and our country today. We will explore these themes with chronological, regional, and thematic perspectives. Some of the goals of this course are to reduce prejudice, broaden perspectives and learn from both mistakes and successes of the past.

Prerequisites – World History

Open to – 11th

Course Length – Year Long (1 Credit)

Fulfill Credit Requirement – Social Studies

US Government

The Purpose of this class is to learn about the structure of the U.S. Government, its origins, and the democratic process. In this semester we will focus on the philosophical and historical foundations of government, the separation of powers, the three branches of government. We will also be learning about the political parties and the role of citizens in a democracy. To meet this objective we will be examining peer reviewed articles as well as the Magruder Textbook.

Prerequisites – World History, American History

Open to – 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Social Studies

World War II through Film & Literature

The purpose of this class is to study how history remembers World War Two using film and Literature. This class will screen several films from different time periods in order to better understand the war as well as to better understand how Americans remember the war. This class attempts to place the war within a global context that includes events both before, after and during the conflict.

Prerequisites – World History, American History

Open to – 9th, 10th, 11th, 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Social Studies, Elective

Economics

This course is designed to teach students basic economic concepts. Students will be learning basic economic questions like “What a country produces and why?” to “How does the United States economy function?” Students will also learn the real-world functions of economics and how the semester long course will have an impact on them as soon as they graduate high school (or how it has already had an impact on their lives.)

Prerequisites – US Government

Open to – 12th

Course Length – Semester (1/2 Credit)

Fulfill Credit Requirement – Social Studies

MS Ancient History

Ancient History will be a review and introduction of Ancient History. We will be focusing on the structure and process of Ancient Civilizations and explore significant points in history that are the foundation of the present day. We will be reading, researching, and exploring major events in history.

Prerequisites – NONE

Open to – 6th

Course Length – Year Long

MS Montana History

This foundational course offers students a comprehensive introduction to the history of Montana, from its Native American roots to contemporary times. Students will explore the rich tapestry of Montana's past, including the diverse cultures of its indigenous peoples, the impact of European exploration, the significance of the fur trade, and the state's path to statehood. Emphasis will be placed on understanding the social, political, and economic forces that have shaped Montana.

Prerequisites – NONE

Open to – 7th

Course Length – Year Long

MS US History

This course will be a review and introduction of American History from early Colonial America to the Civil War. We will be focusing on the structure and process of the Constitution and significant points in history that are the foundation of our present day government. We will be reading, researching, and exploring major events in history.

Prerequisites – NONE

Open to – 8th

Course Length – Year Long

JMG (Jobs for Montana Graduates)

During the course we will be focusing on different life skills of selecting a career and getting a job. The ideal behind the class is to give students the skills to be more confident when they graduate school.

Prerequisites – NONE

Open to – 6th, 7th

Course Length – Year Long

NOTE: Classes offered may vary from year to year.