Calhan High School
District RJ-1, Calhan, Colorado

Course Offerings
2018-2019
ENGLISH I / GRAMMAR

DURATION: Full Year
CREDIT: 1
GRADES: 9
PREREQUISITE: None

This course explores basics composition and grammar. Students are expected to create fluent, grammatical sentences and clearly organized paragraphs. Students will explore literary texts, which will demand scrutiny and interpretation.

ENGLISH II / FRESHMAN ENGLISH

DURATION: Full Year
CREDIT: 1
GRADES: 9
PREREQUISITE: None

This course is a freshman level course that explores basic paragraph structure, sentence fluency, and literary themes. Students will use research to answer questions which demand high quality reasoning. Students will explore literary texts of increasing difficulty which will demand scrutiny and interpretation.

ENGLISH III

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

This course is a sophomore level course that expands on the concepts presented in English 2. Students must use research as a means to answer a question, find a solution, and share findings. Students will explore organizational writing patterns that inform or persuade the intended audience. Students will read literature from various cultures and genres and explore historical and cultural influences on the texts intended meaning. Students will also begin the study of ideas and concepts explored in non-fiction.

ENGLISH IV

DURATION: Full Year
CREDIT: 1
GRADES: 10, 11, 12
PREREQUISITE: None

This course is a junior level course, which expands on the concepts presented in English 3. Students must write critical essays that explore advanced argumentation. Students must have a strong understanding of grammar and reflect this understanding in writing. Students will explore organizational writing patterns that inform or persuade the intended audience. Students will read literature from various cultures and genres and explore historical and cultural influences on the texts intended meaning. Students will continue the study of ideas and concepts explored in non-fiction and the roll evidence, structure, and style play in the development of intellectual thought.

ENGLISH VII / CREATIVE WRITING

DURATION: Full Year
CREDIT: 1
GRADES: 10, 11, 12
PREREQUISITE: None

Creative writing is a class design for students who have an advanced understanding of compositional strategies and can apply these understandings to creative writing. Creative writing allows students to explore grammar and composition as a means to create or control meaning. Students will study contemporary authors and produce projects that explore the current state of contemporary, local writing.

AP LANGUAGE AND COMPOSITION

DURATION: Full Year
CREDIT: 1
GRADES: 10, 11, 12
PREREQUISITE: Teacher recommendation or grade of B or better in Freshman and Sophomore English

Advanced Placement Language and Composition is an upper-level course that focuses on nonfiction and writing. The students prepare for the A.P. Language test by developing their close-reading and analytical skills. Unlike other English classes that focus on literary analysis, the students learn to perform rhetorical analysis in order to identify and apply the techniques used by writers in the public sphere. They learn to compare texts on similar themes in order to synthesize them into an original argument. They also learn to develop their skills in the area of persuasion and argumentation by writing and engaging in debates. By the end of A.P. Language and Composition the students will have the prerequisite skills to enter Advance Placement English Literature.

AP LITERATURE AND COMPOSITION

DURATION: Full Year
CREDIT: 1
GRADES: 11, 12
PREREQUISITE: Teacher recommendation or grade of B or better in Freshman and Sophomore English

An AP English Literature and Composition course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work’s structure, style and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism and tone.
Mathematics

ALGEBRA I

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

This course meets Algebra I Focal Point Curriculum as approved by the district. Topics covered in this class include real number operations, dimension analysis, writing and solving single variable equations and inequalities, solving for a given variable, investigating functions and notation, writing and graphing linear functions and inequalities, writing and solving systems of equations and inequalities in two variables, polynomial operations, writing and graphing quadratic and exponential functions, solving quadratic equations, interpreting quadratic function graphs, properties of exponents including rational exponents, complex number operations, solving quadratics involving complex solutions, graphing and writing equations for quadratic functions, multiplying and dividing rational expressions, polynomial long division, synthetic division, using properties of exponents to solve rational and radical equations in one variable.

ALGEBRA II

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: Successful completion of Algebra I and/or Geometry receiving a B or better. Any student who fails 1st semester Algebra II will be moved to Intermediate Algebra for the remainder of the year as long as they have not previously taken that course. This course can be taken concurrently with Geometry for students receiving an A in Algebra I or with teacher recommendation.

This course meets Algebra II Focal Point Curriculum as approved by the district. Topics covered in this class include complex number operations, solving quadratics involving complex solutions, graphing and writing equations for quadratic functions, multiplying and dividing rational expressions, polynomial long division, synthetic division, using properties of exponents to solve rational and radical equations in one variable, solve and interpret systems of equations, identify and graph non-linear functions, function operations and compositions, writing and graphing inverse functions, properties and operations of logarithms, graphing trigonometric functions, converting between radian measure and degrees, the unit circle, Pythagorean Identity, arithmetic and geometric sequences and series including summations, standard deviation and normal distributions, and margins of error.

GEOMETRY

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: Completion of Algebra I receiving a B or better.

This course meets Geometry Focal Point Curriculum as approved by the district. Topics covered in this class include defining geometric terms, reasoning and proofs (including segments, angles, triangles, and quadrilaterals), angle relationships (supplementary, complementary, and involving parallel lines cut by a transversal), polygon similarity (including scale factor and triangle similarity proofs), right triangle trigonometry, non-right triangle trigonometry, properties and proofs of quadrilaterals, transformations on a coordinate plane, properties of circles (tangents, arc measures and lengths, chords, inscribed angles and polygons, converting between radians and degrees, and area of sectors), writing equations of circles, areas of polygons (including using trigonometry), surface area and volume of 3-dimensional objects, probability (sample space, dependent and independent events, simple and compound events)

PERSONAL FINANCE

DURATION: Full Year
CREDIT: 1
GRADES: 11, 12
PREREQUISITE: Successful completion of Algebra II, or completion of Geometry receiving a C or higher, or completion of Intermediate Algebra receiving a C or higher.

This course can be counted as math credit or elective credit towards graduation. Topics covered in this class include types of pay (hourly, salary, commission), payroll deductions, budgets, credit and credit cards, bank accounts (checking, savings, online banking), loans and financing, insurances (vehicle, renter, homeowner, medical, life), investing, and retirement.

This course meets Focal Point Curriculum as approved by the district. Topics covered in this class include writing and solving single variable equations and inequalities, solving for a given variable, functions and notation, writing and graphing linear functions and inequalities, writing and solving systems of equations and inequalities in two variables, polynomial operations, writing and graphing quadratic and exponential functions, solving quadratic equations, interpreting quadratic function graphs, properties of exponents including rational exponents, complex number operations, solving quadratics involving complex solutions, graphing and writing equations for quadratic functions, multiplying and dividing rational expressions, polynomial long division, synthetic division, using properties of exponents to solve rational and radical equations in one variable.
This course is an upper level mathematics course. Topics covered in this class include solving and graphing linear, quadratic, polynomial and exponential functions; trigonometry; systems of equations; matrices; probability and series; advanced geometry; and a number sense review (working with fractions, decimals, percent, integers, exponents, logarithms, and order of operations).

**AP CALCULUS (AB)**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 11, 12
- **PREREQUISITE:** Pre-Calculus, receiving a B or better.

This course is an upper level college mathematics course. Topics covered in this class include limits, differentiation, integration and applications of derivatives and integrals. Students will take the AP exam in May. A proficient score (3 or higher out of 5) can be used as college credit (up to one semester of math credit).

**AP CALCULUS (BC)**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 11, 12
- **PREREQUISITE:** AP Calculus (AB), receiving a B or better.

This course is the follow-on to AP Calculus (AB). It is the equivalent of 2 semesters of college calculus. It includes ALL topics from AP Calculus (AB) plus advanced integration techniques, series and sequences, and parametric and polar equations. Students will take the AP exam in May. A proficient score (3 or higher out of 5) can be used as college credit (up to one full year of math credit).

**SCIENCE**

**EARTH SCIENCE**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 9
- **PREREQUISITE:** None

The discipline of science specifically concerned with the Earth’s formation, natural constructive and destructive processes, and its place in the universe. Students in Earth Science study mapping, rocks and minerals, plate tectonics, volcanoes, weather and the atmosphere and Earth’s Oceans. Students also learn about the fossil record and geologic time. Upon completion of the course students have a much greater understanding and appreciation for the processes that shape the Earth and how these processes affect our everyday lives.

**MARINE BIOLOGY**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 9, 10, 11, 12
- **PREREQUISITE:** None

This class examines marine life and marine processes. The marine environment is the largest, most important, and most mysterious habitat on Earth. Our oceans contains more than 99 percent of the world’s living space, produces half of its oxygen, plays a critical role in regulating its climate, and supports a remarkably diverse and exquisitely adapted array of life forms. This year long course examines all aspects of the marine environment from fish identification to examining life under the polar ice caps. It is project based with an emphasis on critical thinking beyond simple memorization of facts.

**BIOLOGY**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 10, 11, 12
- **PREREQUISITE:** None

This class is an introduction to all life sciences that helps students learn the common characteristics of all organisms. The themes include: Scientific method, basics of chemistry to understand biological molecules, levels of organization from cells to complete organism, homeostasis, understanding of the genetic material and what governs traits, the passing of traits from parent to offspring and to understand why we look the way we do, exploring our environment and understanding the relationship the living has with the nonliving, the study of the human body and how it functions.

**CHEMISTRY**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 11, 12
- **PREREQUISITE:** None

This class continues the application of the scientific method, a study of the SI system, dimensional analysis, density, physical and chemical properties of matter, formulas, gas laws, chemistry nomenclature, stoichiometry, and periodic properties, experimentation with data collection. Students will use these concepts in a variety of lab experiments. Students need to have a good background in math concepts to deal with the mathematical concepts that are presented though out the year.

**ANATOMY & PHYSIOLOGY**

- **DURATION:** Full Year
- **CREDIT:** 1
- **GRADES:** 11, 12
- **PREREQUISITE:** None

Anatomy and physiology is a course that will enable students to develop an understanding of the relationships between the structures and functions of the human body. Students will also learn the mechanisms for maintaining homeostasis within the human body. This course will involve laboratory activities, projects, dissections, textbook material, models, diagrams, and clinical studies.
AP ENVIRONMENTAL SCIENCE

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

The AP Environmental Science course is a full-year course designed to be the equivalent of a one-semester, introductory college course in environmental science. The AP Environmental Science course has been developed to be a rigorous science class that stresses scientific principles and analysis. It is intended to enable students to undertake, as first-year college students, a more advanced study of topics in environmental science. In both breadth and level of detail, the content of the course reflects what is found in many introductory college courses in environmental science.

AP CHEMISTRY

DURATION: Full Year
CREDIT: 1
GRADES: 11, 12
PREREQUISITE: Passing grade of B or better in Chemistry

This is a first year general college course that will present concepts in the following: measurements and dimensional analysis, structure of the atom and atomic theory, chemistry nomenclature, stoichiometry, reactions in aqueous solutions, gases laws, thermo chemistry, electron configuration, periodic relationships, chemical bonding molecular geometry and hybridization, equilibrium, gas laws, kinetics and electrochemistry. The class will also includes chemistry labs to reinforce chemistry concepts.

AP BIOLOGY

DURATION: Full Year
CREDIT: 1
GRADES: 11, 12
PREREQUISITE: Passing grade of B or better in Biology

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes—energy and communication, genetics, information transfer, ecology, and interactions.

SOCIAL STUDIES

AMERICAN HISTORY

DURATION: Full Year
CREDIT: 1
GRADES: 9
PREREQUISITE: None

This course will provide an introduction to the major forces, events, and individuals that shaped the historical development of the American society, beginning with the pre-Columbian civilizations and concluding with the Civil War/Reconstruction. This course will cover topics on economics, society, politics, intellectual history, geography, and art. Throughout this course students will develop an understanding of how people view, construct, and interpret history and will analyze key historical periods and patterns of change over time within and across nations and cultures. This class or an equivalent such as College American History is required for graduation. Students will use the historical method of inquiry to ask questions, evaluate primary and secondary sources, critically analyze and interpret data, and develop interpretations defended by evidence. The students will be able to explain the key concepts of continuity and change, cause and effect, complexity, unity and diversity over time. Students will understand the significance of ideas as powerful forces throughout history. They will be able to evaluate the implications of geography on society, explain and interpret geographic variables that influence the interactions of people, places and environments and utilize geography to understand the interconnected nature of the world, its people and places.

WORLD HISTORY

DURATION: Full Year
CREDIT: 1
GRADES: 10
PREREQUISITE: None

This course will provide a survey of the history of the World from the prehistoric era, to the ancient Mediterranean civilizations, rise of Asian cultures, and finally through the birth of Europe and the modern world. This course covers topics on economics, society, politics, intellectual history, geography and art. Students will use the historical method of inquiry to ask questions, evaluate primary and secondary sources, critically analyze and interpret data, and develop interpretations defended by evidence. The students will be able to explain the key concepts of continuity and change, cause and effect, complexity, unity and diversity over time. Students will understand the significance of ideas as powerful forces throughout history. They will be able to evaluate the implications of geography on society, explain and interpret geographic variables that influence the interactions of people, places and environments and utilize geography to understand the interconnected nature of the world, its people and places.

CIVICS

DURATION: 1 Semester
CREDIT: .5
GRADES: 11, 12
PREREQUISITE: None

Civics provides a comprehensive overview of the structure and functions of the U.S. government and political institutions. This course examines constitutional principles, the concepts of rights and responsibilities, the role of political parties, and the importance of civic participation in the democratic process. Students will study the major principles of the U.S. Constitution, and the founding documents and laws which shape the American political, social and legal framework. Students will learn about the structure of our federal system and the powers and responsibilities associated with Congress, the President, and the Supreme Court. Students will be given opportunities to learn the rights and the responsibilities associated with American citizenship. This course may examine the structure and function of state and local governments and may cover certain legal topics. Also, students will research, formulate positions and opinions, and engage in appropriate civic participation to address local, state, or national issues or policies. This course strives for students to be active participates in our democracy.
This course provides students with an overview of economics with primary emphasis on the principles of microeconomics, macroeconomics and the U.S. economic system. The course may also cover topics such as international economics, and comparative economics. Economics may be presented in a relevant context, including economic application to current national or international events. In addition, this course will focus on personal finance including: savings, personal income, various money accounts, tax liabilities, investments, credit, and insurance. The EducationCents online program will reinforce these concepts. The Civics/Economics class is designed as the students’ final preparation for their role as productive and active citizens in our democratic society. Students will be able to describe the fundamental concepts of constitutional government and civil rights, and apply the concepts to their personal lives. Students will demonstrate an understanding of the functions of a market economy and the role of government in economic decision making. Students will address the contemporary role of America as a global influence through the investigation of international policy and current issues.

This is the springboard to learning and experiencing a foreign language and culture. Students will learn the alphabet, numbers, grammar, nouns (gender, number, and adjective agreement), verbs, common expressions and be exposed to Hispanic cultures.


Students will continue with Spanish language acquisition and knowledge of the Hispánic cultures. Instruction will include reading novellas and studying Hispanic artists.

Progressively students will continue to study the Spanish language and the various cultures existing in Spanish speaking countries. Students will continue to expand their comprehension in Spanish and their ability to effectively communicate and think like a Spanish speaker. Also, students will advance their vocabulary and idiomatic expression abilities that will further enable students to communicate in Spanish. Students will explore the Spanish language through a variety of listening, reading, writing and speaking activities and/or projects. In addition to the language, students will also continue to explore and become familiar with the cultures represented in the various Spanish speaking countries.

An introduction to animal science, plant and soil science, agricultural mechanics, leadership and communication skills, FFA (which is a premier youth leadership organization), and they will develop a personal livestock, crop or work experience program will be developed and put into operation by each student called an SAE (Supervised Agricultural Experience). This class can count as a Science credit or elective.

A course designed for second year agricultural education students who have taken Introduction to Agricultural Science. This class elaborates on Introduction to Agricultural Science topics and more emphasis on record keeping, leadership skills, and Career Development Event preparation.
AGRICULTURE ANIMAL SCIENCE

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: Successful completion of Intro to Agriculture

Course for students interested in livestock selection, nutrition, reproduction, genetics, and management of horses, cattle, sheep, goats, poultry, and swine. Includes animal anatomy and physiology, diseases, parasites, animal behavior and environment, and carcass evaluation, grading, and cuts of meat.

This class can count as a Science credit or elective.

FINE ARTS

ART

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

This class gives the student basic knowledge of the different artistic skills. First semester is two dimensional and second semester is three dimensional media and techniques like pastels, graphite, still lives and portraiture are used first semester and like clay, paper mache, and sculpture and wheel throwing are used second semester. This class is a project based class and is very demanding.

BAND

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

The High School Band consists of the 9th through 12th grades. The High School Band is open to all individuals that know how to or want to learn to play a band instrument in an ensemble. The ability level will vary widely from the freshman to the senior and in this setting the older students will be good examples to the younger students by performing at full capacity. Fundamentals will be addressed in class along with advanced technique exercises and a concentration on a professional level tone quality and a fully balanced band sound. The music will be challenging and rewarding. The student will still have the opportunity to play in the pep band. Regular practice is expected. Playing exams will be given. The students will demonstrate their skills at one concert per semester and sporting events.

CHOIR

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

This is a performance-based music class. Students will build vocal strength through appropriate warm-ups and techniques, sight-singing, music theory and terminology, music history and singing a wide variety of songs in various languages. Students will sing in unison, two and three parts. Each semester will culminate in a concert for friends and family. Other performances throughout the year, including solo/ensemble competition, and BFL vocal clinic will also be a part of this course.

DRAMA

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

Students will develop and enhance acting techniques, including character work, body movement, improvisation, technical theatre roles, expressive speech and stage vocabulary. Throughout the semester students will learn through a variety of acting exercises, skits, and short scenes. Students will also learn about technical theatre and be responsible for behind-the-scenes work for performance. Each semester will culminate in a scripted performance after school. Fall semester will be a play. Spring semester will be a musical.

COMPUTER APPLICATIONS

DURATION: 1 Semester
CREDIT: .5
GRADES: 9, 10, 11, 12
PREREQUISITE: None

This course covers the theory and concepts necessary for basic computer literacy. An emphasis is placed on data input/output operations and software/hardware developments as they relate to business information systems including hands-on with a microcomputer and introduction to microcomputers with word processing, web design, spreadsheet, communications, and database applications software.

PHYSICAL EDUCATION

PHYSICAL EDUCATION

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

This class is a combination of team sports, individual sports, and fitness. Students will be required to participate daily, dress out daily, write occasional papers on sports, and take tests over what they have learned and participated in. No pre-requisites just a great attitude and a willingness to try different activities/sports!

BFS

DURATION: Full Year
CREDIT: 1
GRADES: 9, 10, 11, 12
PREREQUISITE: None

Athletic Improvement - This class is for the student looking to improve their athletic achievement through the use of weightlifting, stretching, plyometrics, and speed building activities. Students must keep accurate records of their lifts and improvements throughout the entire course. Due to the nature of high school physical education classes being primarily participation classes, it is highly important for a student to be in attendance and participating in the class. If a student is not in attendance of class, or unable to participate, for any reason, other than a school activity, his/her grades will be effected for lack of participation. Only students that are committed to improving should take this class. BFS stands for Bigger, Faster, Stronger.
HEALTH

DURATION: Full Year
CREDIT: 1
GRADES: 10, 11, 12
PREREQUISITE: None

This required class covers a wide variety of health issues and concerns. The main focus is placed upon personal and social responsibility, drug education, and WAIT training. The WAIT training education does require parental permission. If a parent of the student does not want their child to participate in that section, arrangements can be made for the student to fulfill their health requirement by way of research papers.

ELECTIVES

FRESHMAN SEMINAR

DURATION: Full Year
CREDIT: 1
GRADES: 10, 11, 12
PREREQUISITE: None

This required class is designed to teach freshmen the skills needed to transition from middle school to high school. They are to gain knowledge and understanding about different study skills and practices, organizational techniques, seminar days, working on ICAP's (Individual Career and Academic Plan) within their www.CollegeinColorado.org account and other pertinent information relating to human and social skills; so that each student can be successful in high school and beyond. Each student will develop an ICAP, in order to help them set goals through high school and increase their chances for success after graduation.