JAMES IRWIN CHARTER HIGH SCHOOL
COURSE DESCRIPTION BOOK

Revised June 2, 2025

Our Mission: James Irwin Charter High School exists to guide students in the development of their character and academic potential through academically rigorous, content-rich educational programs.

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Administration and Student Services

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Instructional Coach	Shannon Jordan
Academic Advisor	Isabelle Smith
College and Career Advisors	Margie Burnett and Tami Graves
Director of Student Services	Janice Cook

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Graduation Requirements

At JICHS, one credit equals one semester of coursework. To graduate from JICHS, a student must earn 48 credits by fulfilling the following course requirements:

Character and Ethics	1 credit
English	8 credits
Speech and Language Development	1 credit
Science (Biology, Chemistry and Physics)	6 Credits
Mathematics (starting with Algebra 1)	8 credits
History	8 credits
Foreign Language (3 consecutive levels of the same language)	6 credits
Music	1 credit
Art	1 credit
Physical Education or JICHS Sports	2 credits
Electives	6 credits

All students are required by the State of Colorado to demonstrate College and Career Readiness (CCR) in English and mathematics based on at least one standardized exam. More information can be found in the *JICHS Student Handbook*.

Course Plan Examples

Typical Four-Year Plan

Freshman	Sophomore	Junior	Senior
English 9	English 10	English 11	English 12
Biology	Chemistry	Physics	Advanced Math 1
Algebra 1	Geometry	Algebra 2	Govt./Economics
World History 1	World History 2	American History	6 Elective Credits
Foreign Lang. 1	Foreign Lang. 2	Foreign Lang. 3	Study Hall/Study Hall
Character/Speech & Logic	P.E./Art	P.E./Music	
Study Hall/Study Hall	Study Hall/Study Hall	Study Hall/Study Hall	

NMSI Recommended Four-Year Plan

(National Math and Science Initiative / STEM)

Freshman	Sophomore	Junior	Senior
Honors English 9	Honors English 10	AP English 11	AP English 12
Biology	Chemistry	AP Chemistry	AP Physics
Geometry	Algebra 2	Trig. Honors	AP Calculus
World History 1	World History 2	American History	Govt./Economics
Foreign Lang. 1	Foreign Lang. 2	Foreign Lang. 3	Art/Music
Study Hall/Study Hall	AP Biology	Character/Speech & Logic	P.E./P.E.
	Study Hall/Study Hall	Study Hall/Study Hall	Study Hall/Study Hall

Algebra with Lab Four-Year Plan

(Students not ready for Algebra 1 in 9th grade)

Freshman	Sophomore	Junior	Senior
English 9	English 10	English 11	English 12
Biology	Chemistry	Physics	Algebra 2
Algebra with Lab (2-period block)	Intermed. Algebra	Geometry	Govt./Economics
World History 1	World History 2	American History	Art/Music
Foreign Lang. 1	Foreign Lang. 2	Foreign Lang. 3	P.E./P.E.
Study Hall/Study Hall	Character/Speech & Logic	Study Hall/Study Hall	Elective/Elective
	Study Hall/Study Hall		Elective/Elective

Grading System

Regular Courses

A+ = 4.0	B+ = 3.0	C+ = 2.0	D+ = 1.0
A = 4.0	B = 3.0	C = 2.0	D = 1.0
A- = 4.0	B- = 3.0	C- = 2.0	D- = 1.0

Concurrent Enrollment, Honors and Advanced Placement Courses are weighted as follows:

A+ = 5.0	B+ = 4.0	C+ = 3.0	D+ = 2.0
A = 5.0	B = 4.0	C = 3.0	D = 2.0
A- = 5.0	B- = 4.0	C- = 3.0	D- = 2.0

Class rank is determined by GPA.

All classes offered at JICHS are at or above grade level, with the exception of Algebra I with Lab, which is a remedial two-period course covering Pre-Algebra and Algebra 1. Some students may be ahead or behind the standard mathematics track. A minimum of four years of high school-level mathematics must be completed, beginning with Algebra I or higher, during grades 9-12.

To graduate from JICHS, a student must earn a minimum of 48 credits and are required to take at least six (6) classes each semester.

Three successive years of the same foreign language are required to graduate.

Due to the cumulative nature of mathematics and foreign language, all students are required to earn a final semester grade of C- or higher in these subjects in order to matriculate to the next level.

One semester of Art, one semester of Music, two semesters of Physical Education and six elective credits are required for graduation. The high school requirements for Physical Education may be met by participating in one athletic team season at JICHS (see an Academic Advisor for details).

PLEASE NOTE: Course descriptions are subject to change without notice. Courses are offered based on: 1) the availability of a qualified instructor, and 2) student interest. If there is not a qualified instructor available, and/or if there are not enough students who sign up for a particular course that is listed herein, there is no guarantee the course will be available.

Honors, Advanced Placement, and Concurrent Enrollment Course Offerings
Honors (H), Advanced Placement (AP), and Concurrent Enrollment (CE) designations indicate a course that is extremely rigorous and demands a high level of student organization, commitment, and at-home academic study. Consequently, these courses are calculated on a 5.0 GPA scale. The requirement to enroll in an Honors, AP, and/or CE course at JICHS is a teacher recommendation which details a student's grades, maturity, academic participation, and responsibility.

AP courses are taught at the college level by JICHS faculty. Students must take the AP exam given by the College Board in the spring. Depending on the score achieved, and the college or university, students may receive college credit. The 2025 AP exam fee is $99 and is subject to change each year. There is financial assistance available for students qualifying for free or reduced lunch.

CE courses are taught either by JICHS faculty or a PPCC adjunct professor. Students enrolled in an official JICHS concurrent enrollment course who pass with a 70% or higher will earn both college and high school credit.

Course Descriptions

ENGLISH
The purpose of the English curriculum is to guide students in the mastery of critical reading and writing skills according to the Colorado Academic Standards. Writing will be based on MLA (Modern Language Association) style citation and Step-up to Writing, Six Trait, or similar methods. The writing goals for the English curriculum include organization, style, vocabulary, sentence structure, and conventions. Students read a minimum of five novels and one play throughout the school year.

English 9, 2 semesters, 2 credits
Prerequisite: Successful completion of 8th grade English.
This course will introduce students to various literary selections that will enable them to study the elements of the short story, poetry, drama, novels and non-fiction. They will also demonstrate comprehension of Biblical allusions within literature. Students will learn outlining for writing, research, and speech presentation. Writing will include the development and skill in narrative, descriptive, and expository paragraphs. At the end of the year, students will be proficient in applying this knowledge to three-paragraph writing assignments.

English 9 – Honors, 2 semesters, 2 credits
Prerequisites: Successful completion of 8th grade English, placement exam, and A or B in 8th grade English.
Honor students should expect to engage in a more intense academic and intellectual approach to both literature and writing. The workload for this honor-level class will be more stringent. Students will learn to analyze elements of various literature genres. Students will be expected to possess writing skills that demonstrate good sentence structure, proper spelling, clear organization, and in-depth thought. Students will also master and implement literary criticism techniques. At the end of the year, students will write a ten to fifteen-page research paper based on critical analysis of a literary work.

English 10, 2 semesters, 2 credits

Prerequisite: Successful completion of English 9.

This course builds on the previous year of study, delving into the genres of the novel, poetry, drama, and non-fiction. Student writing will include the three writing types: narrative, descriptive, and expository. Persuasive writing will be introduced and used in the development of writing and public speaking. The students will be required to write well-organized five-paragraph essays. By the end of the year, students will be expected to write a well-developed five to eight-page research paper.

English 10 – Honors, 2 semesters, 2 credits

Prerequisites: Successful completion of English 9 Honors or successful completion of English 9 with a recommendation from the previous English teacher.

This course builds on the previous year of study, expanding student knowledge in writing and literature. Students will learn to refine their acquired knowledge and skills. The expectations set for students will be greater, and students will be expected to handle the requirements set for the successful completion of this course. Students will continue using literary criticism to analyze various genres of literature. At the end of the year, students will be expected to produce a fifteen to twenty-page research paper based on critical analysis.

English 11 – American Literature, 2 semesters, 2 credits

Prerequisite: Successful completion of English 10.

This survey course in American literature will take a dual approach: the first will be the traditional Euro-colonial approach that includes literature of the Colonies and the Revolution; it will also concentrate on the developing Eastern domination of literature in the late nineteenth century. Many of the standard writers of these periods will be read. The second approach will involve the discovery of the American West and the transition from a British and European style of writing in America to a Western ethos or view of Americans and their literature. The goal is that the comparison will produce for the students a balanced view of American literary thinking. This East-West approach to the course will be facilitated by a series of short introductory lectures on literary history supplemented by the appropriate readings. Students will learn to apply their knowledge of speech rubrics. Writing will include the review of writing types learned and will be expanded to include cause-effect and compare-contrast. Students will learn to apply writing to their study of literature, analyzing and comparing the various works. At the end of the year, students will be expected to write a ten to twelve-page research paper based on critical analysis of a literary work.

English 11 – Advanced Placement Language and Composition, 2 semesters, 2 credits

Prerequisites: Successful completion of Honors English 10 with recommendations from the previous English and history teachers.

This Advanced Placement course emphasizes the development of skills in critical reading of imaginative and discursive non-fiction and in writing about related ideas. It is for students capable of doing college-level work in English while they are in secondary school, and who are willing to devote the energy necessary to complete a course more rigorous and demanding than other high school English courses designed for college-bound students. This AP course in composition does not exclude works in translation, but whenever possible emphasizes writing by masters in the English language. To that end, students will read widely from such topics as autobiographies and diarists, biographers and history writers, critics, essayists, journalists, political writers, and science and nature writers. The goal is to enable students to demonstrate their achievement in college-level work by taking the AP English Language and Composition examination in May of each school year. Students will also write a ten to twelve-page research paper and several polished essays throughout the year to include papers written in the following styles: narrative, observation, explanatory, evaluation, and problem/solution. Students taking Advanced Placement courses are expected to invest considerable study time outside of class in order to achieve a passing score on the AP exam.

English 12 – British Literature, 2 semesters, 2 credits

Prerequisite: Successful completion of English 11.

This is a general introduction to the major ideas, themes, and writers of British and Classical Western Literature. Semester one may include such authors as Chaucer, Spencer, Shakespeare, Donne, Johnson, Milton, Dryden, Pope, Swift, Wordsworth, Keats, Tennyson, Browning, and others, as well as novels by Charles Dickens and Charlotte Bronte. Second semester will include readings from the late 19th century to the 20th century and may include such authors as Woolf, Shaw, Eliot, Auden, Thomas, Orwell, Joyce, Lawrence, and many others. Writing for seniors will include the application of previously learned skills. These will be applied to the analysis and interpretation of British literary work. At the end of the year students will have written a research paper on the critical analysis of one of the literary works studied.

English 12 – Advanced Placement Literature and Composition, 2 semesters. 2 credits

Prerequisites: Recommendation of faculty.

It is a course emphasizing the development of skills in critical reading of imaginative fiction in the Western literary tradition and in writing about related ideas. It is for students capable of doing college-level work in English while they are in secondary school, who are willing to devote the energy necessary to complete a course more rigorous and demanding than other high school English courses designed for college-bound students. This AP course in literature does not exclude works in translation, but whenever possible emphasizes writing by the masters in Western literature.

The ostensible goal is to enable students to demonstrate their achievement in college-level work by taking the AP English Examination in literature, administered by Educational Testing Service for the College Board in May of each school year. The AP exam requires students to spend from 60 to 70 minutes answering multiple-choice questions and from 105 to 120 minutes responding to essay questions. The essay counts for 60% of the total grade on the examination; the multiple-choice section, 40%. The more important long-term goals of this course are to enable students to learn at a rate commensurate with their ability; to deal with material that intellectually mature students find engaging; to refine reading and writing skills important for success, not only in college but also in the business and professional world; AND to cultivate habits of reading, writing, and thinking that characterize life-long learning and enjoyment.

Creative Writing, 1 semester, 1 credit

Prerequisites: Recommended for juniors and seniors .

A writer strives to entertain the reader by painting a picture with words that will cause the reader to meditate on truth or beauty. Students will experiment with poetry, short stories, drama, and non-fiction writing exercises. Each genre requires different techniques to create an effect on the reader. Delving deeper into grammar and how to manipulate it for effect will also enhance students' repertoire of skills in creative writing. Visits from writers and close examination of exemplary writing will further help students not only write better by emulating these pieces but also recognize worthy pieces of literature. Finally, a brief overview of literary theory will also better equip writers for their various audiences. The class will include an extensive creative writing project.

Language Arts Lab, 1 semester, .5 credit

The Language Arts Lab class is designed to support students with setting and achieving long-term academic and career goals by supporting their growth in English. MindPlay Reading Studio, Cambridge Educational Services Test Prep® Essential Skills and Victory for the SAT may be used as curriculum, along with pre- and post-tests to measure progress. Students will have lessons that are completed in class with the support of a teacher and are targeted to the specific skills where academic support is needed. Students in the Language Arts Lab class can earn a .5 credit per semester that will count towards their overall grade point average (GPA).

FOREIGN LANGUAGES

Knowledge of at least one foreign language and its culture greatly expands students' appreciation and understanding of the world in which we live. This knowledge also supports students in their appreciation of the English language and the American culture. Studying a foreign language enhances the development of vocabulary, spelling, reading, and comprehension of oral and written expression in the students' own language, and it is also essential in a world where international trade and travel are a reality. The requirement of three years of the same foreign language will allow the student to achieve proficiency in the chosen language. Proficiency in one language increases the ease with which other languages may be learned. Many colleges require foreign language for admission. Three successive years of the same foreign language must be taken for graduation. Due to the cumulative nature of the curriculum, students receive credit for a foreign language course with a final semester grade of C- or higher.

French

French is the language of diplomacy and is one of the official languages of Canada, Europe, Asia, and Africa. Students considering a career in government, the arts, science, or business may want to study French.

French 1, 2 semesters, 2 credits

Prerequisites: None.

This course is an introduction to the French language and culture. A technique, known as Total Physical Response Storytelling (TPRS), is used to help students acquire a large vocabulary of practical words, expressions, and common verbs. This methodology teaches the language through acting, gesturing, and storytelling to introduce new vocabulary and to place it in a comprehensible context for the students. Students learn the language in a meaningful, comprehensible way, rather than by

simply memorizing definitions. French I students will have acquired enough vocabulary to be able to hold basic conversations, comprehend and write stories, write journals weekly, and comprehend introductory readers by second semester. Students will be focusing on developing a practical vocabulary base and acquiring many verbs in the present tense. Students will be reading at least one French reader in class this year. Cultural projects will also be completed each quarter. Projects consist of a variety of research papers, creative projects and presentations focused on French speaking cultures and societies.

French 2, 2 semesters, 2 credits

Prerequisites: Grade of C or above in French I.

This course is the continuation of French I. Total Physical Response Storytelling (TPRS), is used to help students continue to expand their vocabulary of practical words, expressions, and common verbs. This methodology teaches the language through acting, gesturing and storytelling to introduce new vocabulary and to place it in a comprehensible context for the students. Students learn the language in a meaningful, comprehensible way, rather than by simply memorizing definitions. French II students will focus on expanding their vocabulary and learning new verbs in both the present and past tenses. The majority of the class hour will be conducted in French. Students will be able to hold more complicated conversations, comprehend and write stories, write journals weekly, and comprehend readers. Students will be focusing on mastering the basic vocabulary and grammar rules presented in French I and learning new vocabulary and verb tenses. Students will be reading a minimum of two French readers in class this year.

Cultural projects will also be completed each quarter. Projects consist of a variety of research papers, creative projects and presentations focused on French speaking cultures and societies.

French 3, 2 semesters, 2 credits

Prerequisites: Grade of C or above in French II or Teacher Recommendation

This course is the continuation of French II. A combination of both Total Physical Response Storytelling (TPRS), and grammar rule instruction is used to help students continue to expand their vocabulary of practical words, expressions, and verbs. TPRS teaches the language through acting, gesturing and storytelling to introduce new vocabulary and to place it in a comprehensible context for the students. Students learn the language in a meaningful, comprehensible way, rather than by simply memorizing definitions. French III students will focus on expanding their vocabulary and learning new verbs in both the present and past tenses. The class hour will be conducted entirely in French. Students will be able to hold more complicated conversations as well as debate, comprehend and write stories, write journals weekly and comprehend readers. Students will be focusing on mastering the vocabulary and grammar rules presented in previous French classes as well as learning new vocabulary and the subjunctive verb tense. Students will be reading a minimum of two advanced French readers in class this year. In addition, students will be doing presentations entirely in French throughout the year, and having regular class discussions in French. Cultural projects will also be completed each quarter. Projects consist of a variety of research papers, creative projects and presentations focused on French speaking cultures and societies

French 4, 2 semesters, 2 credits

Prerequisites: Grade of C or above in French III or Teacher Recommendation.

This course is the continuation of French III. This is a diverse class that will focus on grammar rule instruction, film, literature, phonetics, French society, and culture. French IV students will use their vocabulary; improve their pronunciation, and learning more complex, sophisticated usages of the language. The class hour will be conducted entirely in French. Students will be able to hold more complicated conversations as well as debate, comprehend and write stories, write journals and comprehend readings. Students will master the vocabulary and grammar rules presented in previous French classes as well as learn new vocabulary. Students will read several French readers, view French films, and learn about French culture and society through an assortment of resources. In addition, students will conduct presentations entirely in French throughout the year. Students will be expected to keep up with French current events via the Internet, news reports and newspapers.

Spanish

The Spanish language is becoming more common as a means of communication throughout the U.S.A. Knowing Spanish is a valuable asset in any career due to our increased business with Spanish-speaking countries.

Spanish 1, 2 semesters, 2 credits

Prerequisites: None.

This course provides an introduction to the Spanish language and Hispanic culture. Through the use of Total Physical Response (TPR) methodology designed by the Command Performance Language Institute, the student will learn

conversational Spanish in a dynamic and interactive academic atmosphere. Emphasis also will be placed on enriching the student's vocabulary using 900 Spanish cognates (words similar to English) in addition to learning Spanish words and phrases used in everyday life. Each student will maintain a graded class notebook containing a list of Spanish cognates, verbs, TPR/Vocabulary Quiz results and classroom notes.

Spanish 2, 2 semesters, 2 credits

Prerequisites: Grade of C or above in Spanish I or Teacher Recommendation.

The Spanish Basic II material will develop good comprehension in reading, writing, grammar, and speaking. The class will focus on increasing vocabulary and learning new verbs in present and past tenses. The students will comprehend and respond to oral directions and questions, and be able to communicate simple personal ideas using correct pronunciation and grammar. They will also be able to write short stories with clarity. The class uses the Total Physical Response Story Telling (TPRS) method of language instruction, which incorporates stories and actions. The lesson will include reading, listening to tapes, videos, and speaking. The students will also gain knowledge about Hispanic culture and customs.

Spanish 3, 2 semesters, 2 credits

Prerequisites: Grade of C or above in Spanish II or Teacher Recommendation

These students will continue using TPR. (Total Physical Response Storytelling). It is used to help students acquire a large vocabulary of practical words, end expressions. This methodology teaches the language through acting, gesturing, and storytelling. Students therefore, learn the language in a meaningful, comprehensible way. Spanish III combines TPRS with grammar rule instruction where students will learn new verbs in the present, past and future. The class will be conducted entirely in Spanish. The expectations of these students are to be able to read, comprehend, and write the language in an intelligible fashion.

Spanish 4, 2 semesters, 2 credits

Prerequisites: Grade of C or above in Spanish III or Teacher Recommendation.

This course builds on the skills learned in Spanish III. It will provide advanced students with the opportunity to continue improving Spanish-speaking skills in a dynamic, interactive environment. The students of Spanish IV will be expected to read, speak, and write with some degree of fluency, clearly using the correct grammar and writing skills. The course will also continue to develop for the students' cultural knowledge of Spanish speaking countries through current events using the media, computer, periodicals, and literature. Spanish will be the only language spoken in the class.

Spanish Heritage, 2 semesters, 2 credits

Prerequisites: Proficiency in Spanish at or near a native speaker level and/or recommendation from the Language Department.

This course is designed to develop the Spanish language for Spanish-speaking students with native to near-native competencies. This course will utilize various literary and cultural texts within the Spanish-speaking world to focus on Spanish grammar and syntax through reading and writing. Moreover, this course will teach students how to communicate diplomatically about the Hispanic culture.

Latin

Latin is the basis for all Romance languages (Spanish, Portuguese, French, Italian, and Romanian). The student of Latin has a lifetime edge in learning these languages and in understanding the English language. Latin students tend to outscore other students on verbal standardized tests (ACT, SAT, etc.). The history and mythology of the Roman Empire make Latin come alive and form a foundation for understanding Western Culture. Students interested in medicine, law, history, or linguistics might choose to study Latin.

Latin 1, 2 semesters, 2 credits

Prerequisites: None.

The study of the Classics continues to be fundamental to the humanities and to a liberal arts education. A solid foundation in the languages, history, and culture of Greco-Roman civilization provides a means of understanding the past and the intellectual roots of the present. Preservation and enhancement of our classical inheritance serves to support James Irwin Charter Schools' mission to help develop students' academic potential. The study of Latin is recognized as an excellent foundation for college preparation because it provides students with a greater ability to understand the foundations of the English language. This course will ensure that all aspiring students gain Level I proficiency in the Latin language, written and spoken, as well as an introduction to classical literature, culture, and history of influence of the Greco-Roman world on the concepts and values of Western civilization. Students taking this course may sit for the National Latin Exam in March.

HISTORY/GEOGRAPHY

An understanding of history, geography, and economics is fundamental to becoming a responsible citizen. Students must study world history, as well as the history and government of the United States, in order to understand and evaluate their place in the world. Similarly, current world affairs may be understood through the perspective of past events. History explores the politics, passions and philosophies, and economic situations that move mankind. Students of history are able to take advantage of the accumulated human experiences of the ages, thereby gaining insight and judgments regarding past, current, and future human experiences. Courses are taught in a carefully planned sequence, building upon previous knowledge so students will gain greater understanding of recurring historical themes. History is a reading- and writing-based discipline. Accordingly, history instructors will teach and reinforce the principles of good reading and writing through the analysis of secondary and primary source materials.

World History 1, 2 semesters, 2 credits

Prerequisites: Successful completion of 8th grade History.

History is a reading/writing-based discipline. Accordingly, instructors teach and reinforce the principles of good writing and reading and analysis of secondary and primary source materials. In addition to the text for each course, instructors will assign relevant primary source documents. This course is taught in two semesters and covers world civilizations from prehistory through the Renaissance. Special attention is paid to culture and geography with an emphasis on spatial relationships, cultural diffusion and cause and effect. Students will become familiar with historical terms, understand the organization of history and the processes and resources of historical inquiry. Broad historical concepts like understanding bias, identifying perspective and determining relevancy are incorporated into class and homework exercises.

World History 2, 2 semesters, 2 credits

Prerequisites: Successful completion of World History 1.

History is a reading/writing-based discipline. Accordingly, instructors teach and reinforce the principles of good writing and reading and analysis of secondary and primary source materials. In addition to the text for each course, instructors will assign relevant primary source documents. This course is taught in two semesters and covers world civilizations from the Protestant Reformation through the year 2000. Special attention is paid to culture and geography with an emphasis on spatial relationships, cultural diffusion and cause and effect. Students will become familiar with historical terms, understand the organization of history and the processes and resources of historical inquiry. Broad historical concepts like understanding bias, identifying perspective and determining relevancy are incorporated into class and homework exercises.

World History 1 – Honors, 2 semesters, 2 credits

Prerequisites: 85% or above on Placement test.

History is a reading/writing-based discipline. Accordingly, instructors teach and reinforce the principles of good writing and reading and analysis of secondary and primary source materials. In addition to the text for each course, instructors will assign relevant primary source documents. This course is taught in two semesters and covers world civilizations from prehistory through the Renaissance. Special attention is paid to culture and geography with an emphasis on spatial relationships, cultural diffusion and cause and effect. Students will become familiar with historical terms, understand the organization of history and the processes and resources of historical inquiry. Broad historical concepts like understanding bias, identifying perspective and determining relevancy are incorporated into class and homework exercises. Additional reading and a strong emphasis on sophisticated writing techniques, research and historical documentation denote the Honors designation.

Western Civilization – Honors, 2 semesters, 2 credits

Prerequisites: Grade of B or better in World History I Honors or Teacher Recommendation.

History is a reading/writing-based discipline. Accordingly, instructors teach and reinforce the principles of good writing and reading and analysis of secondary and primary source materials. In addition to the text for each course, instructors will assign relevant primary source documents. This course is taught in two semesters and covers Western Civilization, particularly the study of Europe and its connections with Africa, Asia and America. Special attention is paid to culture and geography with an emphasis on spatial relationships, cultural diffusion and cause and effect. Special attention is paid to the political, economic, social, military, cultural, intellectual and religious aspects of European development around the world.

American History, 2 semesters, 2 credits

Prerequisites: Successful completion of World History 1 and World History 2.

History is a reading/writing-based discipline. Accordingly, instructors teach and reinforce the principles of good writing and reading and analysis of secondary and primary source materials. In addition to the text for each course, instructors will assign relevant primary source documents. This course is taught in two semesters and covers American history from colonization through the year 2000. Students will examine politics, culture, diplomacy, religion, geography, economy and global relationships.

AP European History, 2 semesters, 2 credits

Prerequisites: Grade of B or better in World History I with recommendations from the previous English and history Teachers

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations.

Required text: TBD

HIS 121 – U.S. History to Reconstruction, 1 semester (1 HS credit / 3 college credits)

Prerequisites: A recommendation from a current English and history teacher.

This Concurrent Enrollment course allows students to earn college credit with Pikes Peak State College and high school credit at the same time. The course explores events, trends, peoples, groups, cultures, ideas, and institutions in North America and United States history, including the multiple perspectives of gender, class, and ethnicity, between the period when Native American Indians were the sole inhabitants of North America, and the American Civil War. The course focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in the discipline. Students who enroll in HIS 121 are required to also enroll in the second-semester CE course HIS 122 as a replacement for the full two semesters of American History. Enrollment in a CE college course is strict and demanding, requiring students to demonstrate a high level of maturity and responsibility in self-studying, participating, thinking, reading, writing, and self-advocating.

HIS 122 – U.S. History Since the Civil War, 1 semester (1 HS credit / 3 college credits)

Prerequisites: Successful completion of HIS 121.

This Concurrent Enrollment course allows students to earn college credit with Pikes Peak State College and high school credit at the same time. The course explores events, trends, peoples, groups, cultures, ideas, and institutions in United States History, including the multiple perspectives of gender, class, and ethnicity, between the period of the American Civil War and the present. The course focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in the discipline. Enrollment in a CE college course is strict and demanding, requiring students to demonstrate a high level of maturity and responsibility in self-studying, participating, thinking, reading, writing, and self-advocating.

American Government, 1 semester, 1 credit

Prerequisites: Successful completion of American History.

This is a semester long course designed to familiarize the student with the Constitution of the United States, the Bill of Rights, the three branches of American government (legislative, executive and judicial) and their interrelationship. Students concentrate on the structure, policies and effects that each document has on the development of the three branches of government.

Economics, 1 semester, 1 credit

Prerequisite: Successful completion of American History.

This course provides an overview of micro, macro and international economics affecting the private enterprise system of the United States. Students will learn the fundamental concepts of economic theory using a Junior Achievement course textbook and workbook, classroom discussion and exercises. Upon completion of this course, students will have a better understanding how the science of economics is integrated into their daily lives as responsible citizens and future business consumers/leaders.

Advanced Placement Economics – Macroeconomics, 2 semesters, 2 credits

Prerequisite: Recommendations from the previous science and history teachers.

The purpose of an AP course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and

price-level determination, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students taking Advanced Placement courses are expected to invest considerable study time outside of class in order to achieve a passing score on the AP exam.

MATHEMATICS

The educational philosophy of JICHS embraces the concept that mathematics is an essential component to the development of an educated mind. The disciplined approach of mathematics is readily extended to all other areas of thought, providing an essential element to many occupations and further schooling, especially in the STEM fields. Students are expected to master the concepts of mathematics through daily practice in the classroom and at home. Students will develop fluency in problem solving to successfully complete the lessons, which will support greater thinking and problem-solving throughout all aspects of life. Due to the cumulative nature of the curriculum, students receive credit for a mathematics course with a final semester grade of C- or higher.

Note: The minimum requirement for graduation from JICHS is four years of sequential mathematics at the high school level (beginning in ninth grade). The lowest course that will count towards graduation is Algebra I. This means that all JICHS graduates must, at a minimum, successfully pass Algebra I, Intermediate Algebra, Algebra II and Geometry. Some students may take more advanced courses, and some may be required to complete additional courses to prepare them for the required math curriculum. Students who begin with Algebra II or a higher math level must still complete eight semesters.

Algebra 1 with Lab, 2 semesters, 2 credits

Prerequisite: Placement test for incoming students.

Algebra 1 with Lab is a two-period block that transitions students from introductory algebra concepts (pre-algebra) through the first level of algebra. This course is intended for students who need remediation in algebraic concepts and deals with topics related to the subsets of real numbers, evaluating simple expressions, solving linear equations, fractional, decimal, and percent word problems, solutions of linear and rational equations, operations with scientific notation, and introductory geometry. All concepts are cumulative and are tested throughout the year. Students develop mastery of concepts through rigorous daily homework and practice in class. The goal of the course is for students to catch up to grade level by the end of their freshman year by mastering algebra I and being ready to take geometry their sophomore year. *Note: Upon passing the Algebra 1 final exam in May and earning a C- or higher as a final second-semester grade, the two credits earned for this course will be converted from elective credits to mathematics credits.

Algebra 1, 2 semesters, 2 credits

Prerequisite: Grade of C or higher in Pre-algebra or Algebra ½ (Placement test for incoming students)

Algebra 1 is a comprehensive, first-year algebra course designed to prepare the student for higher math and science. This course deals with the fundamental concepts of algebra, focusing on those topics related to evaluating expressions and solving equations. Topics include linear and quadratic algebra, systems of equations, graphing, inequalities, radicals and real numbers, functions (to include exponential and polynomial), probability and statistics, and introductory geometry. Students may use a calculator only when authorized by the instructor for specific units. Normally, this will be second semester, and it must be a graphing calculator. This course uses an incremental approach and covers a new concept each day. All concepts are cumulative and are tested throughout the year. Students develop understanding through rigorous daily homework and practice in class on the board.

Intermediate Algebra, 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Algebra 1 (placement test for incoming students).

This course is the second course in the four-year sequence of Algebra 1, Intermediate Algebra, Algebra 2, and Geometry. It is intended to provide a slower-paced environment for students that need more time to fully develop their math skills. The emphasis of this course will be on increasing speed and accuracy in solving algebraic problems with an emphasis on basic algebra skills. The student entering this course must pass Algebra 1 with a minimum level of achievement but require additional work to be ready for Algebra 2. Successful completion of this course will prepare a student to take Algebra 2.

Algebra 2, 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Algebra I (placement test for incoming students).

Algebra 2 builds on Algebra I and Geometry math skills and prepares a student for Calculus. This course uses abstract geometric concepts, the fundamental trigonometric ratios, and mathematical problem solving. Specific topics include graphical solutions of simultaneous equations, roots of quadratic equations, factoring, inequalities and systems of inequalities, logarithms and antilogarithms, conic sections, algebra of polynomials, vectors, set theory, and probability. This course uses an incremental approach in which small, new concepts are taught each lesson. The course is comprehensive and reviews and tests all material throughout the year. Students must prepare for this course by accomplishing rigorous daily homework and completing problems in class at the boards. All students must successfully pass Algebra II and its prerequisite courses in order to graduate.

Geometry, 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Algebra I

Geometry is the branch of mathematics that deals with points, lines, planes and solids of various shapes and examines their properties, measurement and mutual relations in space. Geometry is built upon a foundation of a few general assumptions or postulates that are used, with the help of deductive logic, to develop and prove other theorems which encompass the whole of a subject. As a mathematical science, geometry is the model of how modern mathematics continues to grow and develop in self-consistent, logical steps through the process of theorem and proof. This course explores geometry in a proof-based study, with emphasis in understanding how a statement can be justified using previously proven truths. This course prepares students to visualize certain principles of chemistry and physics and prepares students for other areas of academic studies because of its use of logic and deductive reasoning.

Advanced Math 1, 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Algebra 2.

Advanced Math contains an in-depth coverage of trigonometry, logarithms, analytical geometry, and upper-level algebraic concepts. It also completes the study of geometry. Specific areas of study include permutations and combinations, trigonometric identities, inverse trigonometric functions, conic sections, complex numbers, matrices and determinants, binomial theorem, and rational roots theorem. This course completes the first half of the Advanced Math book.

~~**Algebra II, 2 semesters, 2 Credits**~~

~~**Prerequisites: Grade of C or higher in Algebra I**~~

Advanced Math 2, 2 semesters, 2 credits

Prerequisites: Successful completion of Algebra 2 with a grade of C- or higher.

Advanced Math 2 contains an in-depth coverage of trigonometry, logarithms, analytical geometry, and upper-level algebraic concepts. It also completes the study of geometry at the high school level. Specific areas of study include permutations and combinations, trigonometric identities, inverse trigonometric functions, conic sections, complex numbers, matrices and determinants, binomial theorem, and rational roots theorem. The course continues where Advanced Math 1 leaves off and finishes the rest of the Advanced Math textbook.

Math Analysis / Trig Honors (Pre-Calculus), 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Algebra 2.

Advanced Math contains an in-depth coverage of trigonometry, logarithms, analytical geometry, and upper-level algebraic concepts. It also completes the study of geometry. Specific areas of study include permutations and combinations, trigonometric identities, inverse trigonometric functions, conic sections, complex numbers, matrices and determinants, binomial theorem, and rational roots theorem. This class allows the accelerated students to complete the course in two semesters. Most students who complete Pre-Calculus in two semesters will then be able to complete Calculus.

Probability and Statistics, 2 semesters, 2 credits

Prerequisites: Successful completion of Algebra 2.

Probability and Statistics introduces students to the basic concepts and tools for analyzing and collecting data. Broad themes include exploring data, sampling and experimentation, anticipating patterns, and statistical inference. This course is designed to support students in preparing for college-level statistics, careers in the medical field, engineering, and any other careers that require an advanced knowledge of mathematics. In addition, Probability and Statistics will prepare students for careers in marketing, finance, sales, business, meteorology, sports analytics, and understanding data collection and statistics for everyday life.

~~**Geometry, 2 semesters, 2 Credits**~~

~~**Prerequisites: Grade of C or higher in Algebra I**~~

~~Geometry is the branch of mathematics that deals with points, lines, planes and solids of various shapes and examines their properties, measurement and mutual relations in space. Geometry is built upon a foundation of a few general assumptions or postulates that are used, with the help of deductive logic, to develop and prove other theorems which encompass the whole~~

~~of a subject. As a mathematical science, geometry is the model of how modern mathematics continues to grow and develop in self-consistent, logical steps through the process of theorem and proof. This course explores geometry in a proof-based study, with emphasis in understanding how a statement can be justified using previously proven truths. This course prepares students to visualize certain principles of chemistry and physics and prepares students for other areas of academic studies because of its use of logic and deductive reasoning.~~
~~**Required Textbook:** Geometry Jacobs, Harold R.~~

Calculus – Advanced Placement AB, 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Math Analysis.

Calculus covers all topics in the college advanced placement calculus. Graphing calculators are used extensively to show visual demonstrations of concepts and for confirming calculations. Specific topics include a review of functions, a review of trigonometry, limits, derivatives, integrals, techniques of integration, polar functions, areas between two curves, inverse functions, motion analysis, applications of integrals, continuity, course logarithmic differentiation, parametric functions, and logistic growth. This course will meet the needs of students and go as far as the students are capable. Most students should meet or exceed all college math entrance courses and some may test out of college calculus.

Calculus – Advanced Placement BC, 2 semesters, 2 credits

Prerequisites: Successful completion of Advanced Placement Calculus AB with a grade of C- or higher and recommendation of the previous mathematics and science teachers.

AP Calculus BC is a college-level course. While some of the AP Calculus AB material will be reviewed, the course will also cover parametric, polar and vector functions; analysis of planar curves; Euler's method of analysis of numerical solutions to differential equations; L'Hôpital's Rule; derivatives of parametric, polar and vector functions; application of integrals; antiderivatives by substitution of variables; improper integrals; solving logistical differential equations; and polynomial approximations and series. Students taking Advanced Placement courses are expected to invest considerable study time outside of class to achieve a passing score on the AP exam in May.

Statistics – Advanced Placement, 2 semesters, 2 credits

Prerequisites: Successful completion of Algebra 2 with a grade of C- or higher and recommendation of the previous mathematics and science teachers.

This college-level course will introduce students to the basic concepts and tools for analyzing and collecting data. Broad themes include exploring data; sampling and experimentation; anticipating patterns; and statistical inference. The course will be designed to support students in passing the AP exam in May. The course will cover exploratory analysis (20-30%), planning and conducting a study (10-15%), probability (20-30%), and statistical inference (30-40%). The class is technology intensive to introduce students to the interactive process between data and mathematical models. Students taking Advanced Placement courses are expected to invest considerable study time outside of class to achieve a passing score on the AP exam in May.

Math Lab, 1 semester, .5 credit

Prerequisite: Placement test for incoming students.

The Math Lab class is designed to support students with setting and achieving long-term academic goals by supporting their growth in Math. ALEKS will be used as the curriculum, along with pre- and post-tests to measure progress. Students will have lessons that are completed in class with the support of a teacher and are targeted to the specific skills where academic support is needed. Students in the Math Lab class can earn a .5 credit per semester that will count towards their overall grade point average (GPA).

SCIENCE

Science and the scientific method are essential for understanding the world and our place in it. The high school science program will be based upon the three pillars of science: Biology, Chemistry, and Physics. These three courses are the foundation for all other scientific fields of study. Moreover, they form a continuity of understanding in which knowledge from one supports and extends the conceptual framework of the others. In addition to standard textbook coursework, studies in the science program will include laboratory work, data analysis, proof of basic laws and principles (analytically and/or experimentally), problem solving, and scientific reasoning. Awareness of the nature and limitations of science as well as its relationship to and dependence on other academic disciplines will be fostered.

Students must successfully complete six semesters (two semesters per course) of science and are required to take Biology, Chemistry, and Physics to graduate.

Biology, 2 semesters, 2 credits

Prerequisites: Grade of C or higher in Pre-Algebra.

This is a two-semester college preparatory course designed to set the foundation and teach skills and knowledge necessary for success in higher-level biology courses. Designed to give the student a broad exposure to all major aspects of biology, it incorporates a greater emphasis on molecular biology, plants and vertebrate animals in their environments, ecology, and human physiology. Students will complete approximately 30 hours of lab work and present several short papers on assigned topics.

Biology – Advanced Placement, 2 semesters, 2 credits

Prerequisites: Successful completion of Biology, successful completion of Algebra 1 with a grade of C- or higher, and recommendation from previous science and mathematics teachers.

This is a two-semester college-level course designed to give students college credit upon successful completion of the AP exam in May. The course aims to not only give students factual knowledge but also the analytical skills to think critically about the field of biology. The exam, and thus the course, covers molecules and cells (25%), heredity and evolution (25%) and organisms and populations (50%). The course aims to develop students' appreciation of science as a process rather than an accumulation of facts; and therefore, it provides opportunities for students to personally experience scientific inquiry through several laboratory sessions (one fourth to one third of the class). The course will also support students' integration of knowledge of various topics in biology and their environmental and social impacts. The major themes covered in the class include science as process, evolution, energy transfer, continuity and change, relationship of structure to function, regulation, interdependence in nature, and science, technology and society. Students taking Advanced Placement courses are expected to invest considerable study time outside of class to achieve a passing score on the AP exam in May.

Human Anatomy and Physiology, 2 semesters, 2 Credits

Prerequisites: Grade of C or higher in Algebra I and Biology

This is a college preparatory, combined, human anatomy and physiology course designed for students who are considering a career in the sciences, particularly life sciences, medical sciences, or sports medicine. The course expands the standard biology course coverage of human anatomy and physiology. It covers basic life chemistry, organization of the human body, cells, and tissues. Each body system is examined in depth. Further material addresses health issues and common disorders. Laboratory work includes in-depth comparative dissections. The course will require about 30 hours of laboratory work.
Required Text: *Introduction to the Essentials of Anatomy and Physiology:* Tortora, Gerard J and Grabowski, Sandra R.

Chemistry – Honors, 2 semester, 2 Credits: Laboratory Course

Prerequisites: Completion of Algebra 2 w/ grade of B or higher and enrollment in or completion of Geometry

This is a two-semester college preparatory laboratory chemistry course which is a qualitative, quantitative and analytical study of matter. Areas studied through both lecture and laboratory investigations include elements and compounds, their composition and interactions, and the energies involved. Other topics will include the scientific method, chemical bonds, the mole concept, ideal gas laws, energy, states of matter, the Periodic Law and Table, acids, bases, electrochemistry, organic chemistry and nuclear chemistry. Chemistry is concerned with the study of the properties and structures of matter. Each student is expected to conduct independent problem solving and open-ended laboratory work. This course requires a solid understanding of algebra and geometry principles.

General Chemistry, 2 semesters, 2 Credits: Laboratory Course

Prerequisites: Completion of Algebra 1 w/ grade of C or higher and enrollment in or completion of Geometry

This is a two-semester laboratory chemistry course which is a qualitative, quantitative and analytical study of matter. Areas studied through both lecture and laboratory investigations include elements and compounds, their composition and interactions, and the energies involved. Other topics will include the scientific method, chemical bonds, the mole concept, ideal gas laws, energy, states of matter, the Periodic Law and Table, organic chemistry and nuclear chemistry. Chemistry is concerned with the study of the properties and structures of matter. Each student is expected to conduct independent problem solving and open-ended laboratory work. This course requires a solid understanding of algebra and geometry principles.
Required Text: *Holt Chemistry*.

Advanced Placement Chemistry, 2 semesters, 2 credits

Prerequisites: Successful completion of General Chemistry.

This is a year-long, college-level course based upon intense academics and rigorous laboratory application. Topics such as structure of matter, states of matter, reactions, and descriptive chemistry will be keenly studied and tested upon throughout the year and on the AP exam in May. Students will deepen their comprehension and skills of chemistry by practical application, mathematics, and logic. Students taking Advanced Placement courses are expected to invest considerable study time outside of class in order to achieve a passing score on the AP exam of 3 or higher.

Physics, 2 semesters, 2 Credits; Laboratory Course

Prerequisites: Grade of C or higher in Algebra I.

Physics is the science of observation, comprehension, and prediction of the behavior of objects in the physical world. It is a way of understanding the form and function of the universe in terms of fundamental physical concepts such as motion, forces, mass, energy, vector fields, and potential. It depends on the ability to quantify and measure these fundamental concepts in an objective and accurate manner and to embody them in mathematical models to predict the behavior of physical objects. As an experiment-based science, it uses laboratory tests and measurements to support the understanding of physical behavior. Because physics applies mathematics to describe the behavior of things, a firm understanding, and use of mathematics is essential. In this course, the student is expected to be proficient in Algebra I and Geometry. Advanced mathematical concepts and techniques will be taught as needed in the course.

Required Text: *Holt Physics* by Serway, Raymond A. and Faughn, Jerry S.

Physics – Advanced Placement, 2 semesters, 2 Credits; Laboratory Course

Prerequisites: Successful completion of Geometry and enrolled in Algebra 2.

This algebra-based course is the equivalent of a first semester college course in algebra-based physics but is designed to be taught over a full academic year. Having a full year enables students to develop a deep understanding of the content and to focus on applying their knowledge through inquiry-based labs. The full year allows time for inclusion of physics content specified by state standards. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It also introduces electric circuits.

Physics 2 – Advanced Placement, 2 semesters, 2 credits; Laboratory Course

Prerequisite: Successful completion of AP Physics 1

This algebra-based physics course is the equivalent of a second semester college course in algebra-based physics but is designed to be taught over a full academic year. Having a full year enables students to develop a deep understanding of the content and to focus on applying their knowledge through inquiry-based labs. The full year also allows time for inclusion of physics content specified by state standards. This course covers fluid mechanics, thermodynamics, electricity and magnetism, optics, atomic and nuclear physics.

Environmental Science – Advanced Placement, 2 semesters, 3 Credits; Laboratory Course

Prerequisites: Successful completion of Biology, Chemistry and Algebra 1.

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

Astronomy - The Solar System, 1 semester, 1 Elective Credit

Prerequisites: N/A

This is a one-semester introductory level course designed to develop space science skills and knowledge in students. This course covers the history of Astronomy and exploration of the Solar System including the Earth-Moon system, Terrestrial and Jovian planets and other objects in the Solar System. Labs will be conducted to allow students to better understand various concepts within the solar system including observations of various constellations.

Required Text: Astronomy 2e: Published by OpenStax

Astronomy - Beyond the Solar System, 1 semester, 1 Elective Credit

Prerequisites: N/A

This is a one-semester introductory level course designed to develop space science skills and knowledge in students. This course covers things outside the Solar System including the Sun, other stars, galaxies, black holes and the

rest of the Universe. Cosmology and spaceflight will also be covered. Labs will be conducted to allow students to better understand various concepts of objects outside the Solar System.
Required Text: Astronomy 2e: Published by OpenStax

MISCELLANEOUS REQUIRED COURSES

The following courses are required for graduation and support students in the development of their character and broadening their experience in the liberal arts.

Character and Ethics, 1 semester, 1 credit

Prerequisites: None

Character may be defined as that inner quality or strength which directs our personal moral compass, and from which emerge our moral choices. Ethics might be understood as the deliberate and thoughtful process of assessing our moral values and of coming to moral decisions. Both can and indeed should be taught. At a time in our history, when we are confronted with so many different choices, value systems, examples of behavior, "hero" figures (and anti-heroes), and so much conflicting information, the deliberate and self-conscious study of what we hold to be good and of how we come to make our moral choices has become vital skill, vital to both the individual and to our society. This course lays a foundation for character development and moral reasoning, a foundation that serves to support James Irwin Charter Schools' mission to help develop the character and leadership potential of all its students throughout their tenure here. Benjamin Franklin's list of virtues will be used as a guide into the study of Character and Ethics.
Required Text: *The Character Revolution: Restoring America's Soul*: Carawan, Rolfe and *The 7 Habits of Highly Effective Teens*: Covey, Sean.

Speech and Language Development, 1 semester, 1 credit

Prerequisites: None.

Students will study eight areas in the Speech course including the proper way to listen, organize and outline a speech, and interpret the following: poetry, oral, drama, comedy, and storytelling. Also, students will study the art of extemporaneous speaking, impromptu speaking, which leads to debate and original oratory. To finish the semester, students will study parliamentary procedure. After the semester of speech the students will be comfortable in front of a class accomplishing the eight disciplines listed above. This class is also intended to improve and develop the vocabulary of the student. Several Latin and Greek roots are introduced each week along with several words that come from each of those roots. Besides learning the vocabulary words in the lesson, the student uses his/her knowledge of the roots to delineate the meanings of words that they have never seen before.

Physical Education, 1 semester, 1 credit

Prerequisite: None

This course will include a study of the concepts and fundamentals of each sport and activity. In Physical Education students will be analyzing three basic foundations: 1) cognitive skills which deal with knowledge and understanding of the activity, 2) affective skills which deal with the social and emotional skills, and 3) psychomotor skills which deal with basic physical movements and physical fitness. A 2-page paper is due in November answering the question of how athletics and life relates or what is difference between high school and college sports. A field trip may be undertaken to the Olympic Training Center.
Required Fee and supplies: A $20.00 fee for shorts and tee shirts due by September 3rd.

ELECTIVES

The purpose of the following electives is to provide students with various educational experiences so they can further explore potential career interests.

Technology Education

Computer Applications, 1 semester, 1 credit

Prerequisite: N/A

This course helps students adjust to the technology era of the new millennium. They create papers, presentations, excel charts, and web pages. Students learn to edit photos and increase their typing speed. By the end of the semester students will be fluent in Microsoft applications such as Word, Excel, PowerPoint, and Front Page; keyboarding and photo editing with Adobe PhotoShop.
Required fee and supplies: A $10 printing fee is due by the end of the first week of class. A USB jump drive labeled with the student's name and note-taking materials should be brought to the first class.
Text: None – *Online documentation and Computer Based Training*

Introduction to Computer Science, 1 semester, 1 credit
Prerequisite: N/A

Introduction to Computer Science is a one-semester course for students grades 9-12. This course covers programming techniques using the Microsoft C# language. Topics include primitive data types, simple input and output, loops, control flow, strings and arrays. Students will use Microsoft Visual Studio as their Integrated Development Environment (IDE) to solve a variety of problems in a teacher-led, project-based environment. Class focus is on traditional text-based console applications ending with the exploration of Graphical User Interface (GUI) development. The class does NOT require students to have computer access at home; all programming will be done at school in the computer lab. Successful completion of this course provides the necessary skills to transition into AP Computer Science.

Computer Science – Advanced Placement, 2 semesters, 2 credits *(may qualify as third year of world language)*
Java Programming

Prerequisite: Algebra 2/Introduction to Computer Science and access to a Pentium computer for homework and projects.

The primary goal of this course is to introduce students to the field of computer science through the discipline of programming. The use of this Java programming language is designed to teach students about object-oriented software design and programming. This is a two-semester course, assuming 30 weeks are available prior to the AP exams. Approximately 50% of the class time will be devoted to labs. The students will learn to write Java code in a well-structured fashion and learn the use of object oriented
design and algorithm implementation. They will learn common sorting, searching, and array operations. Using a Marine Biology Simulation case study will bring all of these concepts together and prepare the students for the AP exam. The course includes several individual programming projects assigned for one or two weeks each. Students complete their work on Windows-based machines using the Java2 SDK 1.4.2 and in the JCreator environment. (Complete environments are available for home use.)

Text: *Java Methods:* Litvin & Litvin, Skylit Publishing

STEM Level One, 1 semester, 1 credit
Prerequisites – None

STEM Level one is a one semester course to aid students in achieving STEM literacy, allowing them to explore activities that emphasize innovation, problem solving, critical thinking and creativity using hands on training systems such as robots, drones, and 3D printers. The students will complete projects using the engineering design process while integrating the concepts related to STEM disciplines in a 'learning by doing' environment.

Photojournalism, 2 semester, 2 credits
Prerequisite: Computer Applications or comparable computer skills

This course will create, layout and distribute the high school newspaper the Irwin Intrigue, as well as the school's yearbook. Students learn the difference between writing an essay and writing an article for the newspaper. Students will take on such newspaper jobs as editor in chief, features editor, sports editor, opinions editor, and reporter. Each person is not only responsible for writing articles every week, but also taking appropriate pictures and putting them into the paper. Digital photography will be explained and basic principles of photocomposition will be studied. Students will become familiar with Microsoft Publisher, Microsoft Word, and Adobe Photoshop, as well as the online software needed to create the yearbook. In addition, students will take on yearbook positions such as editor-in-chief, sports editor, student life editor, and business manager. By the end of the year every student is fluent in all software, all journalism jobs, and all yearbook jobs. They will know and live by the deadlines required for satisfactory completion of the yearbook and all newspaper editions.

Attendance at some school functions and after-school meetings is a requirement for this class.

Psychology

AP Psychology, 2 semesters, 2 credits
Prerequisites: Successful completion of Biology and English 10

Students will explore the ideas, theories, and methods of the scientific study of behavior and mental processes. Students will examine the concepts of psychology through reading and discussion and will analyze data from psychological research studies. Students will learn skills such as connecting psychological concepts and theories to real-life scenarios, understanding and interpreting data, and analyzing research studies in psychology. It is equivalent to a one-semester, introductory college course in psychology. The ostensible goal is to enable students to demonstrate their achievement in

college-level work by taking the AP Psychology Examination, administered by Educational Testing Service for the College Board in May of each school year. The AP exam requires students to spend from 60 to 70 minutes answering 100 multiple-choice questions and 50 minutes responding to two Free Response Questions. The multiple choice counts for 67% of the total grade on the examination; the free response section, 33%. The secondary goal of the course is to encourage students to think critically, and engage with the material in a mature, responsible manner.
Required Text - Myers' Psychology for The AP Course; Yost Hammer, Elizabeth; Worth High School Publishers

Psychology, 1 semester, 1 credit

Prerequisites: Successful completion of Biology and English 10
Students will explore the ideas, theories, and methods of the scientific study of behavior and mental processes. Students will examine the concepts of psychology through reading and discussion and will analyze data from psychological research studies. Students will learn skills such as connecting psychological concepts and theories to real-life scenarios, understanding, and interpreting data, and analyzing research studies in psychology. It is equivalent to a one-semester, introductory college course in psychology. The goal of the course is to encourage students to think critically, and engage with the material in a mature, responsible manner.
Required Text - Myers' Psychology for The AP Course; Yost Hammer, Elizabeth; Worth High School Publishers

FINE ARTS

Through a serious study in the arts, each student will develop judgment and appreciation for the arts one of the highest creations of human effort. Armed with this background, the entire rich world of art is available for appreciation and understanding. One semester of art and one semester of music in the Fine Arts at the high school level are required for graduation.

Art

Art courses include art history, perceptual skills and studio work and allow for students' individual achievement levels and can be taken sequentially to improve skills. Students taking art classes will pay an art materials fee and may be asked to supply material for individual projects.

Art I Basic Art, 1 semester, 1 credit

Prerequisite: None
This introductory class allows students the opportunity to explore and experiment with media and techniques that they may not have worked with before. Two-dimensional media such as ink, pencil, charcoal, pastels, and acrylic paint, along with three-dimensional media such as clay, papermaking, weaving, and wire sculpture will be investigated. Basic elements and principles of art will be discussed, as well as topical art history movements and techniques necessary for successful art critiques. **Required fee and supplies:** $25 materials fee*; a sketchbook (approximately 8" x 10") OR a 3-ring binder with copy paper should be brought to the first class.

Ceramics, 1 semester, 1 credit

Prerequisite: Art 1
This course will cover basic elements and principles of ceramics, ceramic techniques and some ceramic history. You will explore clay through coil, hand-building, slab and wheelwork. Projects may include sculpture, boxes, mugs and bowls and freeform pieces. **Supplies**: $25 materials fee*

Art II, 1 semester, 1 credit

Prerequisite: Successful completion of Basic Art
This course will cover more complex art media and techniques. Students will explore aspects of drawing, painting, design, ceramics, paper and fiber art, animation, and other applications. Projects may include perspective drawing and shading using pencil, ink, and conté crayons; collage and other mixed media applications of design; traditional and unorthodox methods of creating ceramics, fiber art, and paper art; as well as experimentation with screen-printing or batik.
Supplies: $25 materials fee*; a sketchbook (approximately 8" x 10") OR a 3-ring binder with copy paper should be brought to the first class.

Drawing and Painting, 1 semester, 1 credit

Prerequisite: Successful completion of Basic art

This course will explore and study different types of drawing and painting. The process of "seeing" and creating expressive as well as formal drawings and paintings will be explored, along with the improvement of drawing and painting skills. The art of animation will be explored as time permits. Media may include pen and ink, conté crayons, pastels, acrylic paint, gouache, casein, oil sticks, and watercolor. **Supplies**: $25 materials fee*; a sketchbook (approximately 8" x 10") OR a 3-ring binder with copy paper should be brought to the first class.

3-D Design, 1 semester, 1 credit

Prerequisite: Successful completion of Basic Art

This course will cover the techniques of collage, construction, assemblage, wire sculpture and mixed media applications. The class will include a study of some major art periods and three-dimensional masterpieces throughout history, especially the 20th century; some projects may be patterned after famous works of art. Artwork will be analyzed using traditional criteria, including elements and principles of art. The class will also compete in the annual Design and Build competition sponsored by the Museum of Outdoor Arts (spring only). Field trips and site visits are a MANDATORY part of this class.
Supplies: $25 materials fee*; a sketchbook (approximately 8" x 10") OR a 3-ring binder with copy paper should be brought to the first class.

Digital Design I, 1 semester, 1 credit

Prerequisite: Basic art & Computer Applications; or comparable skills as determined by teacher

This introductory course will teach Adobe PhotoShop as a drawing and design tool. Students will explore basic toolbar commands, drawing tools, filters, techniques of composition, as well as advanced topics such as scanning and seamless digital composites. In addition, digital photography, basic principles of photocomposition, and the use of Josten's online software will be studied so as to publish the school yearbook. Students will also complement the photojournalism class in layout, printing, and distribution of the school newspaper. Student critiques will be used to augment discussion of the basic elements and principles of art. Attendance at some school functions and after-school meetings is a requirement for this class.
Supplies: $15 materials and printing fee*; a signed Network User Agreement; and a signed Contract due by the end of the first week of class.

Digital Design II, 1 semester, 1 credit

Prerequisite: Successful completion of Digital Design I

This class will continue the study of Adobe PhotoShop, with emphasis on graphic design and photocomposition. Students will use PhotoShop and Josten's online software to design layout and finish the school yearbook. Other graphic and web design programs such as Quark Express; and Macromedia Dream Weaver, Flash, Fireworks, and Freehand will be explored as time permits. Student critiques will be used to augment discussion of the basic elements and principles of art. Attendance at some school functions and after-school meetings is a requirement for this class.
Supplies: $15 materials and printing fee*; a signed Network User Agreement; and a signed Contract due by the end of the first week of class.

Art History, 1 semester, 1 credit

Prerequisite: None

This course will include a study of major art periods and masterpieces throughout history. Artwork will be analyzed using traditional criteria, including elements and principles of art. One or more simple art projects will be assigned to implement understanding of specific art movements, and a research project is required. A field trip may be undertaken during the semester to view art of specific artists and/or movements.
Required text: *The Annotated Mona Lisa: A Crash Course in Art History from Prehistoric to Post-Modern,* Carol Strickland and John Boswell.
Supplies: 3" x 5" index cards; note-taking materials (bring to first class).

Studio Art – Advanced Placement, 2 semesters, 2 credits

Prerequisite: Successful completion of Art I or Art History, and at least one other art class; comparable skills as determined by teacher

AP Studio Art is a year-long course designed for highly motivated students who are seriously interested in the study of art. Creativity and the investigation of formal and conceptual issues of art will be discussed, as well as an emphasis in the technical skills of making art. Students will become more self-directed, more self-motivated, and more independent as they choose the subject matter and media for their artworks. At the end of this course, students will submit a portfolio for assessment of college-level credit; there is no written exam. This course demands significant financial and time commitment by students.
Required text: None

Supplies: 1)$25 materials fee PER SEMESTER, due by the END OF THE FIRST FULL WEEK OF CLASS, plus the cost of slides and other materials needed for portfolio submission; 2) a sketchbook, approximate six 8" x 10", or a 3-ring binder with plain copy paper (NOT lined notebook paper)—sketchbooks used in previous art classes are acceptable; 3) AP fee (currently $86) ; and 4) parental and student signatures on the attached contract, due END OF THE FIRST FULL WEEK OF CLASS. To have your artwork shown on certain websites, exhibitions, and competitions, an Artist Release form must be signed and returned; it will be retained by the school.

Note regarding art studio classes: ***If the fee is not paid, the student will be required to purchase their own supplies and equipment for the class (list will be provided)***

Drama

Drama, 1 semester, 1 credit

Prerequisite: None

As theatre is a collaborative art form, we (the ensemble) will explore the diverse styles of theatre that have existed throughout history and develop an understanding for the evolution of theatre through the modern day. Acting techniques, design processes, and directorial choices will also be explored, and we will apply those techniques to play analysis and performance projects. Aesthetic appreciation for the art of theatre and the philosophical reasons for human expression will also be explored.

Required Text: *Theater in Action*

Note regarding art studio classes: If ***the fee is not paid, students will be required to purchase their own supplies and equipment for the class (list will be provided).***

Music

Music Appreciation, 1 Semester, 1 credit

Prerequisites: N/A

This course gives the student the opportunity to expand their knowledge through the study of music. The student will learn how to read and listen to music while learning about different types or genres of music as well as those who used and perfected those different types. This course will cover the musical periods starting with Medieval progressing through the Renaissance, Baroque, Classical, Romantic, Impressionistic, and contemporary.

Band, 1 Semester, 1 credit

Prerequisites: Instrument playing-2 yrs.

Band will serve as an opportunity to play an instrument in a group with other students. There will be performances throughout the year. Instruments in band include (but are not limited to) the following: Flute, Clarinet, Oboe, Saxophone, Trumpet, Trombone, French Horn, Tuba, Percussion, Violin, Viola, and Cello. Students are responsible for supplying their own instrument; although, for percussion as well as some of the larger instruments, the school will provide the instrument.

Choir, 1 Semester, 1 credit

Prerequisites: N/A

Choir will serve as an opportunity to sing in a group with other students. There will be performances throughout the year. The choir performs all styles of music, from sacred to folk, from classical to pop. This is a mixed choir, usually singing four part SATB. It is an enjoyable time where students learn to work together as a team while improving their own musical ability.

Choir – Honors, 1 Semester, 1 credit

Prerequisite: Audition and permission of instructor

The permission of the instructor is required for this course, designed to give more advanced choral students the opportunity to participate in a choral ensemble appropriate for their ability level. Entry requirements include the demonstration of a working knowledge of tone quality, breathing, diction, sight reading ability and overall musicianship. Emphasis will be placed on components of ensemble building, such as blend, balance, dynamics and articulation. **Participation in scheduled performances in mandatory**. Additionally, students are expected to display high standards of rehearsal and performance etiquette. Repertoire will cover a variety of musical styles and genres.

Introduction to Instruments - 1 Semester, 1 credit
Prerequisite - N/A

Introduction to Instruments is a semester long course that meets daily. It is a class where students will be able to familiarize themselves with a variety of instruments including posture, breathing, and air support. They will also approach fundamental music theory such as note identification, value, timing, and musical terms.
Curriculum: Essential Elements for Band

Character Enrichment

Law and Morality – Honors, 1 semester, 1 credit

Prerequisites: Recommended for juniors and seniors
Law and Morality is an advanced writing and rhetoric course that introduces students to a variety of topics that relate to notions of ethical, philosophical and legal interest. The readings vary in historicity and approach the topic from a Western mind set. It is desired that by reading these topics students will be emboldened to further read and research specific areas of interest. Topics to be included but are not limited to the understanding of a philosophy of law; is there absolute truth or is truth relative? How can the truth be known? Do we have a right to be happy? What or who is evil and why? Do we have the right to own property? What is the morality of suicide? What is self and societal alienation and what must be done to live life with value and dignity? There may be at least one field trip to the Woman's Correctional Facility in Canon City, CO. There will also be a panel discussion with various thinkers, academics and professionals who will field questions from the students at the end of the semester.
Required Text: Law and Morality: Complied and Edited by Will, M.K.2002.

Critical Thinking, 1 semester, 1 credit

Prerequisites: Recommended for juniors and seniors
The first part of the course will help students become critical thinkers, i.e. become people who think about thinking. Critical thinking employs the left brain to analyze, judge and prioritize information. The students will practice mind mapping techniques and other organizational skills. Texts will be analyzed as well as popular culture for biases, missing information, faulty logic, etc. The second part of the course is about problem solving. The capacity to come at old questions from new perspectives, to raise new questions about old problems, and to creatively respond to our ever changing world in new and paradigm shifting ways is one of the benefits of creative thinking. This course will provide numerous techniques for tapping into the student's creative potential to develop the ability to become a creative problem solver.
Required Text: *The Art of Thinking:* Ruggiero, Vincent Ryan

The Power of Purpose, 1 Semester, 1 Credit

Prerequisite: None
Mark Twain said, "The two most important days in your life are when you were born and the day you found out why." This course will take students on a journey to discover purpose and meaning for their life. Students will learn to identify negative and positive influences and how to use them to set and reach goals. Furthermore, students will learn strategies to build and maintain healthy relationships. This course provides the tools students need to reveal and find their authentic purpose in life.
Curriculum: Jeffs, Victoria. *Find Your Day 2 Core Purpose*. Day 2 International: 2008.

Entrepreneurial Development Program, Level One, 1 semester, 1 credit

Prerequisites: None
Entrepreneurial Development Program, Level One, will introduce the students to business and entrepreneurial concepts. All students will be able to understand the theoretical and philosophical aspects of the business development process. This first semester will focus on management theory, business concepts, and entrepreneurship.
Required Text: Who Owns the Ice House? Eight Life Lessons From an Unlikely Entrepreneur: Clifton Taulbert and Gary Schoeniger; material from Small Business Association and Pikes Peak Small Business Development Center; concepts from Character And Ethics applied to the business setting.

Entrepreneurial Development Program, Level Two, 1 semester, 1 credit

Prerequisites - Entrepreneurial Development Program, Level One
Entrepreneurial Development Program, Level Two, will continue educating students in business and entrepreneurial concepts. All students will be able to understand the theoretical and philosophical aspects of the business development process. This second semester will focus on the execution of a business plan. Students will be able to put all acquired

knowledge into developing a business plan following the guidelines of the Small Business Administration as well as the Pikes Peak Small Business Development Center.
Required Text: Who Owns the Ice House? Eight Life Lessons From an Unlikely Entrepreneur: Clifton Taulbert and Gary Schoeniger; material from Small Business Association and Pikes Peak Small Business Development Center; concepts from Character And Ethics applied to the business setting.

Academic Resource, 1 semester, .5 credit
In Academic Resource, students receive instruction in a small group setting, allowing for individualized attention and tailored instruction to meet their unique needs. Students review concepts covered in courses where a student might struggle and need more support. Students also receive one on one support to finish assignments, essays, and homework.

Valedictorian Determination

In determining the Valedictorian and Salutatorian from each senior class, the selection will be made based on which students have achieved at the very highest level. To be Valedictorian, a student must have the highest weighted grade ranking in the senior class and have completed twenty (20) credits in core subjects. Please see the list of electives below that qualify as core subject electives.

James Irwin Charter High School Electives

Academic Core Electives
The following electives count towards the 20 core subjects credits required of any student being considered for valedictorian/salutatorian: *if any AP class replaces a core class requirement, it does not count as an elective
*French, Spanish IV & AP
*Chemistry AP
*Physics AP
*American History AP
*English 12 AP
*Statistics
Creative Writing
Speech
Computer Science AP

Practical/Fine Arts Electives
The following electives do not count towards the 20 core subject credits required of any student being considered for valedictorian/salutatorian:
3-D Art
Drawing & Painting
Art History
Art I & Art II
Choir
Band