



# CITY ACADEMY

Making A Difference  
Building the Future One Student at a Time

## CITY ACADEMY COURSE DESCRIPTIONS – HIGH SCHOOL

Index	Page
Core Courses	1
Other Required Courses	10

### ***CORE COURSES:***

#### ***English Language Arts – 4.0 Credits Required 9-12 for Graduation***

##### 06020000040 English 9 – 1 credit required

This course in English Language Arts meets Utah Core Standards for English 9. English 9 serves as a transitional step between English 8 and the pre-advanced English class at City Academy. Students study of materials ranging from novels and short stories to speeches and films. Students independently apply strategies for recognizing when meaning has been lost and will use multiple strategies to attempt to repair meaning. Student writing will focus on pieces designed to reinforce the authorial techniques studied in class and analytical essays. Students will master the standard academic essay format and appropriate voice and tone. Students will also begin working on composing short essays based on individual text excerpts.

##### 06020000050 English 10 – 1 credit required or completion of Pre-Advanced or Advanced-level English in grade 10.

This course in English Language Arts meets Utah Core Standards for English 10. English 10 reinforces and expands student skills in writing and text analysis to enhance success at the pre-advanced level and beyond. Students will continue to independently utilize comprehension monitoring and repair strategies. Students refine their skills for selecting, interpreting, and integrating quotations as evidence in their papers with the goal of independence in this effort. Students will work to overcome specific obstacles to producing grammatically correct, cogently organized and academically toned writing. Students will hone their skills for reading and writing in a variety of fiction and non-fiction genres.

##### 06020000060 English 11 – 1 credit required or completion of Pre-Advanced or Advanced-level English in grade 11.

This course in English Language Arts meets Utah Core Standards for English 11. English 11 builds and expands student skills in writing and text analysis to enhance success at the pre-advanced level and beyond. Students will compose a variety of works demonstrating an ability to select and employ quality evidence in support of clearly articulated positions. Students will conference with instructors individually to resolve impediments to the extraction and production of meaning in student work. This will include making student products readily accessible to a variety of audiences.

06020000070 English12 – 1 credit required or completion of Pre-Advanced or Advanced-level English in grade 12.

English 12 provides specific, individualized instruction in developing post-secondary reading and writing skills with a concentration on non-fiction reading and analytical thinking and writing. Some assignments will seek to apply the students' skill to common real-world scenarios. This course will provide a strong foundation for college-level literacy across disciplines.

06010000040 College Preparatory Pre-Advanced (IGCSE) Level English – 1 credit: Open to 10<sup>th</sup> – 12<sup>th</sup> grade students with desire & teacher permission. Required for College Ready graduation.

This course follows the curriculum for the Cambridge International Exam (CIE) program International General Certificate for Secondary Education (IGCSE) in Literature in English. This course forms the foundation for Cambridge Advanced Placement English courses. This Language Arts course is designed to prepare students with the skills necessary to succeed in higher education and meets Utah Core Curriculum college readiness standards. Pre-A English prepares students for Advanced English courses in either high school or college. This course requires independent recognition and analysis of authorial techniques. Students will refine skills for navigating difficult texts, including knowing how to access outside resources. The writing assignments favor analytical compositions over other varieties. Students by this point will demonstrate mastery of English grammar and composition, including use of a multi-step writing process. Students will revise writing as opposed to merely proof-reading it. Pre-A students will begin to write full-length essays in response to text excerpts, relating them to larger issues in the text. Students will write papers on poetry and prose, and drama for the IGCSE Literature in English Examination at the end of this course.

06010000093 Advanced Level 1 Literature in English (AS-level) – 1 credit: Open to 10<sup>th</sup> – 12<sup>th</sup> grade students with desire & teacher permission.

This course prepares students for the Cambridge International Examination (CIE) program International Advanced (IA) Literature in English exam at the Advanced Subsidiary (AS) level. This English in Literature syllabus encourages an appreciation of, and informed personal response to, literature in English in the three main forms (Drama, Poetry, and Prose), and from different time periods and cultures. The course is designed to help students work with the interdependent skills of reading, analysis, and communication. Students will study the ways in which writers' choices of form, structure, and language shape meanings. Students will develop skills to be able to communicate clearly their knowledge, understanding, and insight appropriate to literary study. Students will complete timed essays on thematic and textual questions in order to build confidence and familiarity with the CIE testing format. For AS and AICE Diploma qualification, candidates are required to pass two papers as follows: Paper 3 (Poetry and Prose) and Paper 4 (Drama). These papers will count as two of the four papers required for an A-level qualification.

06010000093 Advanced Level 2 Literature in English (A-level) – 1 credit: Open to 11<sup>th</sup> & 12<sup>th</sup> grade students with successful AS level completion or with desire & teacher permission.

This course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) Literature in English exam at the Advanced (A) level. This

English in Literature syllabus encourages investigation of texts from a variety of angles. Students will expand their reading to include information about historical contexts of the works, authors' biographies, and relevant theories of literary criticism. Student writing will follow two main thrusts. Long-term in-depth assignments will aim at broadening and deepening students' background knowledge and ability to integrate multiple sources. Students will also complete timed essays on thematic and textual questions in order to build confidence and familiarity with the CIE testing format. For A-level and AICE Diploma qualification, candidates are required to pass two papers as follows: Paper 5 (Shakespeare and other pre-20<sup>th</sup> Century Texts) and Paper 6 (20th Century Writing). These papers will count as two of the four papers required for an A-level qualification.

06010000120 Creative Writing - .5 credit:

This course will help students develop the skills, strategies, and processes for creative writing. This class focuses on personalizing reading and writing experiences for each student. As a workshop class, students will engage in both individual and shared experiences with their own writing and that of others. This course may be repeated for up to 2.0 total credits.

### ***Mathematics – 3.0 Credits Required 9-12 for Graduation***

All Mathematics Courses are designed with integrated mathematical topics following the Utah Core Curriculum, and aspire to instill the following Mathematics practices in students (as recommended in the Utah Core Standards for Mathematics):

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

07080000090 Secondary Mathematics I – 1 credit: Suggested for grade 9 with pre-requisite of Math 8; open to 8<sup>th</sup> graders with Pre-Algebra pre-requisite

This integrated mathematics course meets Utah Core Standards for Secondary Mathematics I. In this course, students will deepen and extend understanding of linear relationships, in part by contrasting them with exponential phenomenon, and in part by applying linear models to data that exhibit a linear trend. Students will use properties and theorems involving congruent figures to deepen and extend understanding of geometric knowledge. Algebraic and geometric ideas are tied together. Students will experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

07080000095 Secondary Mathematics I H – 0.25 credit Pre-requisite: desire and teacher permission.

In Secondary Mathematics I Honors students will additionally focus on vectors, matrices, The honors course includes extra depth and additional topics.

07080000100 Secondary Mathematics II – 1 credit: Suggested for grade 9 or 10 with pre-requisite of Math I, or Algebra & Geometry.

This integrated course meets Utah Core Standards for Secondary Mathematics II. Students in this course will focus on quadratic expressions, equations, and functions, extend the set of rational numbers to the set of complex numbers, link probability and data through conditional probability and counting methods, study similarity and right triangle trigonometry, and study circles with their quadratic algebraic representations.

07080000105 Secondary Mathematics II H – 0.25 credit Pre-requisite: desire and teacher permission.

Honors students will also represent complex numbers and their operations on the complex plane, solve systems of equations, prove and apply trigonometric identities, express conic sections algebraically, and solve problems using volume measurements.

07070000060 IGCSE Pre-Advanced Math – 1 credit: pre-requisite: Secondary Math II

This course follows the curriculum for the Cambridge International Exam (CIE) program International General Certificate for Secondary Education (IGCSE) in mathematics. This course forms the foundation for Cambridge Advanced Placement Mathematics courses. Students will review, use and deepen understanding of algebra, geometry, and trigonometric skills in the context of complex problems. Students will move their work in this course to higher level math concepts such as Sets, Vectors, Functions, Matrices, and the basics of Statistics and Probability. The course is designed to help students learn to engage in mathematics effectively, and build their enthusiasm and confidence towards mathematics. In addition to the Core content, students will engage in open ended investigations, think about historical and novel problems, and practice communicating their mathematical reasoning by writing Mathematics papers. Students will write coursework and take the IGCSE Extended Mathematics Examination at the end of this course.

07080000110 Secondary Mathematics III – 1 credit: Suggested for grade 10 or 11 with pre-requisite of Math II.

This integrated course meets Utah Core Standards for Secondary Mathematics III. This is the final course in the Integrated Pathway of Secondary Math courses where students experience Mathematics as a coherent, useful and logical subject that makes use of their ability to make sense of problem situations. It is also the launching pad into the Cambridge A-Level courses. Students in Secondary Mathematics III will focus on pulling together and applying the accumulation of learning that they have from their previous courses. They will apply methods from probability and statistics, expand their repertoire of functions to include polynomial, rational, and radical functions, they will expand their study of right triangle trigonometry and will bring together all of their experience with functions and geometry to create models and solve contextual problems.

07080000115 Secondary Mathematics III H – 0.25 credit Pre-requisite: desire and teacher permission.

Honors students will also study rational functions, inverse functions, logarithms, translate equations in Cartesian coordinates into polar coordinates, De Moivre's Theorem, and formulas for finite arithmetic and infinite geometric series.

0704000020 Mathematical Analysis – 1 credit: pre-requisite: Math III, IGCSE Math, Math Modeling, Algebra II, or Pre-Calculus

In preparation for this course, students should have mastered linear and quadratic functions, concepts from discrete mathematics involving sequences and series, and data analysis and probability techniques. They should also be able to confidently work with expressions containing rational exponents and radical and rational terms. In this course, students use mathematical models to understand trigonometry and pre-calculus concepts much more in depth. Throughout the courses students will have opportunity to gain extensive understanding of functions, inverses and other algebraic techniques necessary for calculus. Students will investigate concepts of calculus with considerably more depth than in a regular pre-calculus course. Students will communicate mathematical ideas and logical reasoning in writing by investigating sophisticated, open ended problems and write formal mathematics papers reporting their findings.

0704000020 Mathematical Modeling – 1 credit: pre-requisite: Math III, IGCSE Math, Math Analysis, Algebra II, or Pre-Calculus

In preparation for this course, students should have mastered linear and quadratic functions, concepts from discrete mathematics involving sequences and series, and data analysis and probability techniques. They should also be able to confidently work with expressions containing rational exponents and radical and rational terms. Areas of study for the course will include exponential, power, polynomial, rational, logarithmic, and piece-wise functions, along with trigonometric functions and their inverses. Students will investigate and explore mathematical ideas using methods that will help them gain a deep understanding of fundamental concepts, develop multiple strategies for analyzing complex situations, and acquire appropriate technological skills. Students will analyze situations verbally, numerically, graphically, and symbolically. Effective communication skills will be developed so that students will be able to discuss, explain, and justify their thoughts and ideas. While mathematical skills will be developed, teaching will focus on building a deep understanding of concepts that will enable students to apply mathematical skills and make meaningful connections to life's experiences. There will be a particular emphasis on using the graphing calculator.

0704000001 Advanced Level 1 Mathematics & Mechanics (Cambridge AS level) –

1 credit: Open to high school students with successful completion of IGCSE Math, Math III, Math Analysis or Modeling, or Pre-Calculus and with desire & teacher permission.

This course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) Mathematics exam at the Advanced Subsidiary (AS) level.

This mathematics course comprises of two units: Pure Mathematics 1 and Mechanics 1.

Pure Math 1 includes the study of topics similar to a Calculus AB or Calculus I course covering concepts such as integration and differentiation, as well an in-depth study of series and sequences, functions, trigonometry, and vectors. Mechanics 1 will cover forces and equilibrium, and concepts of limiting friction and equilibrium; kinematics of motion in a straight line; Newton's laws of motion; and energy, work, and power. For AS and AICE Diploma qualification, candidates are required to pass two papers as follows: Pure Mathematics 1 and Mechanics 1. These papers will count as two of the four papers required for an A level qualification.



0704000001 Advanced Level 2 Mathematics& Statistics (Cambridge A level) – 1 credit: Open to high school students with successful completion of AS level, Calculus I, or with desire & teacher permission.

This course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) Mathematics exam at the Advanced (A) level. This mathematics course comprises of two units: Pure Mathematics 3 and Probability and Statistics 1. Pure Math 3 is very similar to a Calculus BC or Calculus II course as students learn to find the derivatives and integrals of more complicated equations. Students deepen their understanding of algebra as well as learning about logarithmic and exponential functions. Students expand their knowledge of trigonometric identities and their applications. They also work further on vectors and are introduced to differential equations and complex numbers. In Statistics 1 students will learn to calculate the mean and standard deviation of a set of data (including grouped data) and understand normal distribution and its uses including as an approximation of the Poisson Distribution, solve problems about permutations and combinations, and understand discrete, linear combinations of, and continuous random variables. For A-level and AICE Diploma qualification, candidates are required to pass four papers as follows: Pure Mathematics 1 and Pure Mathematics 3, Mechanics 1, and Probability and Statistics 1.

### ***Science – 3.0 Credits Required 9-12 for Graduation***

08040000010 Earth Systems Science – 1 credit: Open to 9<sup>th</sup>-12<sup>th</sup> students

This is a laboratory-based course in earth science that follows and expands on the Utah state core curriculum and is organized around four sets of topics. Students will have the opportunity to engage in scientific inquiry and carry out experiments each quarter.

Quarter 1: The nature of science, Earth as a system, Matter and Atomic structure, Structure and composition of the solar system, The sun, stars and other galaxies, and How it all began-the big bang. Quarter 2: Composition of the earth—biotic/abiotic, ecosystems and biodiversity, Rocks and minerals, and weathering, erosion, soils. Quarter 3: the hydrosphere, the atmosphere—meteorology, storms, and climate. Quarter 4: plate tectonics, volcanoes, earthquakes, and mountain building. Earth science concepts will be integrated with concepts and skills from other curriculum areas. Reading, writing, and mathematics skills will be emphasized as integral to the learning of science. Students will have opportunities to gain insights into science related careers.

08020000010 Biology – 1credit: Open to 9<sup>th</sup>-12<sup>th</sup> students. Pre-requisite for 9<sup>th</sup> graders – highly successful completion of Science 8, or teacher permission.

This is an in-depth laboratory-based course in Biology that follows and expands on the Utah state core curriculum. Students will prepare for and take the Utah Biology SAGE as a part of this course.

The Biology curriculum has two primary goals: (1) students will value and use science as a process of obtaining knowledge based on observable evidence, and (2) students' curiosity will be sustained as they develop and refine the abilities associated with scientific inquiry. Three major concepts will be the focus of instruction: (1) the structures in all living things occur as a result of necessary functions, (2) interactions of organisms in an environment are determined by the biotic and abiotic components of the environment, and (3) evolution of species occurs over time and is related to the environment in which the species live. Biology students will design and perform experiments, and value inquiry as the fundamental scientific process. Students will have the opportunity to engage in scientific

inquiry at school in the science lab and on the school grounds as well as at various locations in the community. They will be encouraged to maintain an open and inquisitive mind, to pose their own questions about objects, events, processes, and results. They will have the opportunity to plan and conduct their own experiments, and come to their own conclusions as they read, observe, compare, describe, infer, and draw conclusions. The results of their experiments need to be compared for reasonableness to multiple sources of information. They will be encouraged to use reasoning as they apply biology concepts to their lives. Biology concepts will be integrated with concepts and skills from other curriculum areas. Reading, writing, and mathematics skills will be emphasized as integral to the learning of science. This course is designed to meet the diversified needs of students who require biology for future employment or education.

0803000010 Chemistry – 1 credit: Pre-Requisite –Secondary Math I, Algebra 1, or equivalent, and Biology suggested

This is an in-depth laboratory-based course in college preparatory chemistry that follows and expands on the Utah state core curriculum and is organized around major concepts of matter, structure, and energy, emphasizing the principles and laws that describe the conservation of matter and energy. Students will have the opportunity to engage in scientific inquiry and carry out experiments each quarter to help them gain understandings of chemical structure, changes in matter, equilibrium, acid-base, thermodynamics and all subjects covered in a mathematical college preparatory chemistry class. This course focuses on the further development of good laboratory technique and the understanding of all principles of a comprehensive first year chemistry class. Participation in the City Academy science fair will be strongly recommended and supported. Students will prepare for and take the Utah Chemistry SAGE and may take the Cambridge International Examinations certificate-level exam as a part of this course.

0806000020 Physics – 1 credit: Pre-Requisite –Secondary Math II, or equivalent; either Biology or Chemistry encouraged.

This is an in-depth laboratory-based course in college preparatory physics that follows and expands on the Utah state core curriculum. Physics students will prepare for and take the Utah Physics SAGE and may take the Cambridge International Examinations certificate-level IGCSE exam as a part of this course.

This course is designed to follow and expand on the Utah State Core Curriculum as well as go in-depth into Mechanics concepts. Three major areas of focus will be (1) Motion of Objects where students learn how to measure, calculate, and describe the motion of an object in terms of position, time, velocity, and acceleration; (2) Forces Acting on Objects where students learn the relation between force, mass, and acceleration along with factors determining the strength of gravitational and electric forces; and (3) Energy – types, transfer and conservation. Students will be encouraged to maintain an open and inquisitive mind, to pose their own questions about objects, events, processes, and results. Students will be encouraged to use reasoning as they apply physics concepts to their lives. They will have the opportunity to plan and conduct their own experiments, and come to their own conclusions as they read, observe, compare, describe, infer, and draw conclusions. The results of their experiments will be compared for reasonableness to multiple sources of information.

08020000001 Advanced level Biology – 1 credit: Open to high school students with successful completion of Biology, Secondary Math II, or equivalent and with desire & teacher permission.

This course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) Biology exam at the Advanced (A) level. This A-level exam includes a lab practicum. This advanced level course includes study of cell structure and use of the microscope in cell studies, biological molecules, enzymes, cell membranes and transport, cell and nuclear division, genetic control, transport systems in multicellular plants and animals, gas exchange, infectious disease, immunity, ecology, energy and respiration, photosynthesis, regulation and control, inherited change, selection and evolution, biodiversity and conservation, gene technology, biotechnology, crop reproduction and adaptations, and human reproduction. This course has a strong focus on use of the knowledge gained in this course in novel situations or to solve related problems.

08030000001 Advanced level Chemistry – 1 credit: Open to high school students with successful completion of Chemistry, Secondary Math II, or equivalent and with desire & teacher permission.

This course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) Chemistry exam at the Advanced (A) level. This A-level exam includes a lab practicum. This advanced level course includes study of Physical Chemistry: atoms, molecules and stoichiometry, atomic structure, chemical bonding, states of matter, chemical energetics, electrochemistry, chemical equilibria, reaction kinetics; Inorganic Chemistry: the periodic table and chemical periodicity, similarities and trends in the properties of the group II metals, the elements in group IV, chlorine, bromine, and iodine in group VII, the chemistry of transition elements, nitrogen and sulfur; Organic Chemistry: students will be expected to quote the reagents (e.g. aqueous NaOH), the essential practical conditions (e.g. reflux) and the identity of each of the major products. Detailed knowledge of practical procedures is *not* required; however, candidates may be expected to suggest (from their knowledge of the reagents, essential conditions and products) what steps may be needed to purify/extract a required product from the reaction mixture. Topics to include hydrocarbons, halogen derivatives, hydroxyl and carbonyl compounds, carboxylic acids and derivatives, nitrogen compounds, and polymerization. This course has a strong focus on use of the knowledge gained in this course in novel situations or to solve related problems.

## ***Social Studies – 3.5 Credits Required 9-12 for Graduation***

09040000035 Geography (9<sup>th</sup> grade). – 1 credit required

This year long course meets and expands on the requirements of the Utah state core for Geography for Life. This course addresses the curriculum for the Cambridge International Exam (CIE) program International General Certificate for Secondary Education (IGCSE) in geography. This course covers three major topics: (1) Population and Settlement - population dynamics, settlement patterns, land use and movement of peoples; (2) The natural environment - plate tectonics, landforms and landscape processes, weather, climate and natural vegetation, inter-relationships between the natural environment and human activities; and (3) Economic Development and the Use of Resources - agricultural systems, industrial activities, leisure activities, energy and water, environmental risks and benefits: resource conservation and management. Students develop skills of map use and data



collection and evaluation through many fieldwork exercises. Students demonstrating themselves ready will take the CIE IGCSE examination in the spring of their ninth grade year. This examination includes the completion of a fieldwork-based coursework project.

09050000090 World Civilizations (10<sup>th</sup> grade) – 1 credit required unless taking IGCSE History.

This year long course meets and exceeds the requirements of the Utah state core for World Civilizations. Students explore aspects of world history from the Neolithic Revolution to the present, tackling key questions that focus on the development of “civilization”, systems of government, inequalities of wealth and gender and war and peace. In addition to deepening their knowledge and understanding, students develop skills in handling historical evidence and assessing historical change and causation.

09050000092 IGCSE History (10<sup>th</sup> grade): Pre-Requisite: Desire & Teacher permission.

This year long course meets and expands on the requirements of the Utah state core for World Civilizations. This course follows the curriculum for the Cambridge International Exam (CIE) program International General Certificate for Secondary Education (IGCSE) in world history. Students taking this course will take CIE exams for IGCSE History. This course covers ancient history, the middle ages and the renaissance with emphasis on the major international issues of the nineteenth and twentieth centuries, as well as covering the history of particular regions in more depth. The emphasis is on both historical knowledge and on the skills required for historical research. Students learn about the nature of cause and effect, continuity and change, similarity and difference and find out how to use and understand historical evidence as part of their studies.

09050000050 U.S. History II (11<sup>th</sup> – 12<sup>th</sup> grades) – 1 credit required unless taking Advanced-level U.S. History.

This year-long course in United States history from Civil War to present is organized around four sets of essential questions: Quarter 1: Industrialization - Is US History a history of progress?, Do new technologies always lead to progress? What is progress?, What problems and solutions do innovations produce?, What challenges faced Americans as a result of those social and technological changes? Topics covered 1<sup>st</sup> quarter include transportation, communication, business, unions, and immigration, and WWI. Quarter 2: The American Dream - What principles, hopes and ideals are included in "the American dream?", What does this dream promise, and to what extent have these promises been fulfilled?, and What does it mean to be an American? Topics to be covered 2<sup>nd</sup> quarter include Prohibition, Harlem Renaissance, Great Depression, New Deal, WWII. Quarter 3: Social Change - Is protesting/nonviolence an effective way to make social change?, How is social change accomplished?, What can we actually do to bring about social change for a more just society? Topics to be covered 3<sup>rd</sup> quarter include communism, Red Scare, civil rights movement, counter-culture, Vietnam. Quarter 4: Foreign Policy - To what extent has US foreign policy been in the best interest and the world?, As the preeminent superpower, what role should the United States play in the world?, When is it appropriate for a nation to use military force? Topics to be covered 4<sup>th</sup> quarter include Cold War, economy of today, terrorism, War in the Middle East.

09050000001 Advanced-Level 1 US History 1840-1968 – 1 credit: Pre-Requisite: Desire & Teacher permission

This course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) US History exam at the Advanced level. The US History syllabus covers the following major topics: (1) Westward Expansion and the Taming of the West, c.1840-96, (2) Civil War and Reconstruction, 1861-1877, (3) The Impact of Economic Expansion, 1865-1917, (4) Civil Rights, 1895-1968, (5) Boom and Bust, 1920-1941, (6) The USA's Rise as a World Power, 1890-1945, and (7) Social Developments, 1945-1968. Students will study the ways in which writers' choices of form, structure, and language shape meanings. Students will study the key developments that transformed the United States from an isolated agrarian society to a world power in terms of strength, military power, political and diplomatic influence as well as the cultural and social impact on other peoples and nations. For A-level and AICE Diploma qualification, candidates are required to pass a compulsory source-based question and three essay questions from a choice of seven.

0905000020 Advanced-Level 2 Modern European History 1789-1939 – 1 credit: Pre-Requisite: A-level U.S. History suggested, or Desire & Teacher permission

This year long course prepares students for the Cambridge International Exam (CIE) program International Advanced (IA) Modern European History exam at the Advanced level. The Modern European History syllabus covers the following major topics: (1) The French Revolution, (2) The Industrial Revolution, (3) 19<sup>th</sup> century Nationalism, (4) The 'New Imperialism', c.1870-1900, (5) The Russian Revolutions, and (6) Totalitarianism between the Wars, 1919-39. Students will study these key developments holistically in relation to the wider European context and in light of broader issues. Emphasis is on both historical knowledge and on the skills required for historical research. Students learn about cause and effect, continuity and change, similarity and difference, and use historical evidence as part of their studies. For A-level and AICE Diploma qualification, candidates are required to pass a compulsory source-based question and three essay questions from a choice of seven.

0906000020 United States Government and Citizenship - .5 credit required

The goal of this course is to foster informed, responsible participation in public life. The course helps students develop understandings about proactive citizenship in our United States democracy. Upon completion of this course the student will understand the major ideas, protections, privileges, structures, and economic systems that affect the life of a citizen in the United States political system. This course is recommended for seniors due to their proximity to voting age.

09090000902 Comparative Religion-Religious Studies A & B - .5 credit each (Open to 10<sup>th</sup>-12<sup>th</sup> grades) Students may take both semesters for 1.0 credit.

This course closely follows the syllabus for CIE IGCSE Religious Studies and serves as an introduction to philosophical thinking and religious perspectives on the ultimate reality, causes, and principles underlying being and thinking. The aims of this course are to (1) promote an enquiring, critical and sympathetic approach to the study of religion, especially in its individual and corporate expression in the contemporary world; (2) introduce students to the challenging and varied nature of religion, and to the ways in which this is reflected in experience, belief and practice; (3) help students to identify and explore questions about the meaning of life, and to consider such questions in relation to religious traditions; (4) encourage students to reflect on religious responses to moral issues; and

(5) enable students to recognize and appreciate the contribution of religion in the formation of patterns of belief and behavior.

09070000010 Psychology - .5 credit (Open to 10<sup>th</sup>-12<sup>th</sup> grades)

Psychology introduces high school students to the scientific study of behavior and mental processes. Students will learn about approaches to psychology, the life span, and the workings of mind and body. They will be able to use this information to gain insight into their lives and the lives of those around them.

***OTHER REQUIRED COURSES:***

***Fine Arts\_– 1.5 Credits Required 9-12 for Graduation***

02010000061 Art 2A and 2B - .5 credit: No Pre-Requisite

These semester long courses follows the state core curriculum for High School Visual Art Foundations and may be repeated for up to 2.0 total credits. This course is for the beginning artist. Students will study the foundations of various art forms and media. Students will have the opportunity to internalize the process of visual thinking and art making. Much focus will be on drawing that will sustain and inform more advanced art work in the future, and which will yield products that are evidence of creative progress.

02010000061 Art 3A and 3B - .5 credit: Pre-Requisite – Art 2A and 2B

These semester long courses follows the state core curriculum for High School Visual Art Foundations and may be repeated for up to 2.0 total credits. Students will study the histories of various artists and cultural exemplars. Through the course students will be expected to develop a portfolio of selected pieces in different mediums and with selected techniques; projects will include some self-design and motivation. Students will also accomplish finished works for exhibition.

02010000066 Advanced Studio Art - .5 credit: Pre-Requisite – A complete year of each of Art 2 and Art 3 and have successfully auditioned into the class, and/or have the instructor’s permission.

This course is for the advanced artist. Students will continue studying various artists and cultural exemplars. Through the course students will be expected to develop a portfolio of selected pieces in different mediums and with selected techniques; projects will be largely of self-design and motivation. Students will also accomplish finished works for exhibition.

02010013061 Concurrent Enrollment Drawing 1020 - .5 credit. Pre- Requisite – A complete year of each of Art 2 and Art 3 and have successfully auditioned into the class, and/or have the instructor’s permission.

02010000040 Graphic Design - .5 credit Pre-requisite - successful audition into the class, and/or have the instructor’s permission.

02020000060 Conditioning through Dance - .5 credit:

Dance is a universal art form with the capacity to unite aesthetics with the physical exercise. This semester course builds dance knowledge and skills while helping students develop skills and propensity for individual lifetime activity and fitness and may be

repeated for up to 1.5 total credits in either fine arts or Individualized Lifetime Activity. Students will learn and perform a variety of dance styles.

#### 02040200001 Choir - .5 credit

This course provides opportunities for students to develop their musical potential and aesthetic understanding through singing in a choral ensemble. Study includes the care and cultivation of a beautiful tone, aesthetic awareness, the ability to read music, the building of technical skills, team spirit, and responsible rehearsal habits. Students will have opportunities to experience the spontaneity of improvisation and the creative process of composition. Students will strengthen listening skills and their ability to analyze and evaluate music and music performances. Attention will also be given to relating music experiences to personal development.

#### 02040300040 Guitar 1 - .5 credit

02040300045 Intermediate Guitar - .5 credit: Pre-Requisite – At least a complete year of Guitar 1 and have successfully auditioned into the class and/or have the instructor's permission.

These semester courses may be repeated for up to 4.0 total credits. Each course focuses on the development of musical skills in three major areas 1) technique; the proper use of hands and body for most effective playing, using the fingers to strike the strings; 2) the elements of music: note reading, chord spelling, rhythm especially as related to strumming chord patterns, as well as reading tablature and chord diagrams; 3) solo and ensemble playing drawn from technical studies as well as popular and traditional sources, with a special emphasis on the precision needed for ensemble and group performance.

#### 02040300040 Piano/Song Writing - .5 credit

This course will develop the skills of keyboard playing, music reading, and keyboard techniques such as scales, chords, hand position and fingering. Students will also learn fundamentals of music theory and music composition. This semester course and may be repeated for up to 3.0 total credits.

#### 02040000030 IGCSE Music – 1.0 credit

This course follows the curriculum for the Cambridge International Exam (CIE) program International General Certificate for Secondary Education (IGCSE) in music. The aims of this course are to: (1) enable students to acquire and consolidate a range of basic musical skills, knowledge and understanding, through the activities of listening, performing and composing; (2) help candidates develop a perceptive, sensitive and critical response to the main historical periods and styles of Western music; (3) help candidates to recognize and understand the music of various non-Western traditions, and thus to form an appreciation of cultural similarities and differences; (4) provide a foundation for the development of an informed appreciation of music; and (5) provide a foundation for further study in music at a higher level.

***World Languages – 2.0 Credits in the same foreign language in grades 9-12 are required for College Ready Graduation***

City Academy offers 3 world languages – French, German, and Spanish. Each of these courses provides the same general content material for each year of the course. Students wishing to study other languages may do so through online and other accredited programs including higher education institutions.

Year 1: 1 credit. This beginning course is offered to students who seek to understand the basics of the language, the cultures and the people in countries where the language is spoken. This course introduces students to the language by listening to, speaking, reading, and writing in the language. The focus is on basic conversational skills in a variety of settings. Students practice by means of dialogues, structured drills, reading selections, written exercises, and role plays.

03030000011	French 1
03040000011	German 1
03070000011	Spanish 1

Year 2: 1 credit. Pre-Requisite – Year 2 is only open to students who have successfully completed Year 1, auditioned into the class and/or have the teacher’s permission. In this year long course students build upon skills learned in Year 1 to expand their abilities in listening to, speaking, reading, and writing in the language. The focus is on past, future, and possible events in a variety of settings. Students practice by means of dialogues, structured drills, reading selections, written exercises, and role plays. Students also study culture as it relates to the places the language is spoken.

03030000021	French 2
03040000021	German 2
03070000021	Spanish 2

Year 3: 1 credit (may be repeated for credit). Pre-Requisite – Year 3 is only open to students who have successfully completed the previous year of study, auditioned into the class and/or who have the teacher’s permission.

This course follows the curriculum for the Cambridge International Exam (CIE) program International General Certificate for Secondary Education (IGCSE) in second language. In this year long course students continue to refine skills learned in Years 1 and 2, as well as continue their study of history and culture. The target language is used exclusively in class with the focus on persuasion, influence, and argumentation. Students will be introduced to the testing formats and study strategies for Advanced Placement and Cambridge International Examinations.

03030000035	French 1
03040000035	German 1
03070000035	Spanish 1

03070000081 Advanced level Spanish Language: Pre-Requisite: Teacher permission – AICE Spanish is only open to students who have a strong background in Spanish, auditioned into the class and/or have the teacher’s permission. This course may be repeated for up to 2.0 total credits

In this year long course students will build fluency in the language. Spanish is used exclusively in class. Students study Hispanic culture, history, and current affairs. Completion of the course will enable students to take the A-level Cambridge International Exam Spanish Language exam.



## *PHYSICAL EDUCATION & HEALTH – 2.0 Credits Required in 9-12 for Graduation*

### 04010000010 Health 9<sup>th</sup>-12<sup>th</sup> - .5 credit required.

The goal of Health Education at the high-school level is to help establish patterns of behavior that will assist a person in achieving complete health. Complete health is accomplished by having a balance of physical, mental, social, emotional, and spiritual well-being. This course is designed to offer students the opportunity to acquire knowledge, incorporate processes and life skills, and develop positive attitudes about life. Development of a healthy body and a healthy mind will assist young people in living active, productive, and successful lives.

### 02020000060 Conditioning through Dance - .5 credit:

Dance is a universal art form with the capacity to unite aesthetics with the physical exercise. This semester course builds dance knowledge and skills while helping students develop skills and propensity for individual lifetime activity and fitness and may be repeated for up to 1.5 total credits in either fine arts or Individualized Lifetime Activity.

### 04020000030 Physical Education: Fitness for Life (9<sup>th</sup>-12<sup>th</sup> grades) - .5 credit required:

This semester course is an individualized, concepts-based, one-semester course designed to give students the knowledge and skills necessary to self-assess, create, conduct, evaluate, and redesign personal fitness programs. It is required of all students and there are no substitutions, including participation in athletics. The course is a combination of classroom and activity-based learning activities with a focus on proper nutrition and the mastery of skills and concepts necessary for students to become accomplished monitors of their personal lifetime fitness. Through participation, students learn to compare the fitness benefits in a variety of individual and team activities.

### 04020000040 Physical Education: Individualized Lifetime Activity (9<sup>th</sup>-12<sup>th</sup> grades) - .5 credit required

This semester course will emphasize individual or dual activities and may be repeated for up to 1.5 total credits. Team sports are not emphasized, and only those with carry-over value as lifetime activities are offered. Improved fitness is the goal of this course. The curriculum will provide diverse offerings to meet the individual needs of all students and to develop competency in up to three lifetime activities. Competency is defined as the ability to apply basic skills, strategies, and rules using standardized guidelines or rubrics. Participation, sportsmanship, and citizenship are highly valued in this class.

### 04020000060 Physical Education: Participation Skills & Technique (9<sup>th</sup>-12<sup>th</sup> grades) - .5 credit required.

This semester course contains a variety of activity, traditional sports and non-traditional and may be repeated for up to 1.5 total credits. Sports and activity will include: Basketball, Golf, Floor Hockey, Juggling, Flag Football, "Rocks," Soccer, Dodge Ball, Softball, Kickball, Volleyball, Fitness, Swimming, Rock Climbing, Ropes Courses, Bowling, Dance, Ultimate Frisbee. Participation, sportsmanship, and citizenship are highly valued in this class.

## *CTE, PRAGMATICS & SCIENCES*

32020000240 Computer Technology I – 0.5 credit Required for graduation

This course is an introduction to computer application software that includes word processing, spreadsheet, database, and telecommunications. An awareness of career opportunities, business ethics, and trends is included.

32020000216 Computer Technology II – 0.5 credit Pre-requisite: completion of Computer Technology I.

This will be a meaty course including application of advanced concepts and principles using word processing, spreadsheets, databases, and electronic presentation software. Students will also build a computer, and learn programming languages: Java, Html, Robot C, DarkBASIC, Android Apps, and Networks

38010000033 Introduction to Engineering Design – 1 credit

Introduction to Engineering Design (IED) is one of two laboratory-based foundation courses in the Project Lead the Way high school engineering program curriculum. The major focus of IED is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

38010000078 Principles Of Engineering – 1 credit: Pre-Requisite: Geometry, Secondary Math II or equivalent

Principles Of Engineering (POE) is one of two laboratory-based foundation courses in the Project Lead The Way high school engineering program curriculum. The course applies and concurrently develops high school level knowledge and skills in mathematics, science, and technology. POE uses student activities, projects and problems to explore the wide variety of careers in engineering and technology and examine various technology systems and manufacturing processes. POE gives exposure to some of the major concepts encountered in a postsecondary engineering course of study: (1) Mechanisms, (2) Energy Sources, (3) Energy Applications, (4) Machine Control, (5) Fluid Power, (6) Statics, (7) Material Properties, (8) Material Testing, (9) Statistics, and (10) Kinematics.

40090000047 Digital Electronics – 1 credit: Pre-Requisite: IED and POE

Digital Electronics (DE) is specialized laboratory-based course in the Project Lead The Way high school engineering program curriculum. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

08060000010 Astronomy (10<sup>th</sup> – 12<sup>th</sup> grades) - .5 credit. Pre-requisite: Biology

This is a semester-long in-depth lab and field-based course. The course is organized around two essential ideas from the Earth Systems Science core curriculum: (1) the big bang theory and formation and structure of the universe, and (2) structure and composition of the solar system and their relationship to the processes that exist in the universe.

08040000025 Food Science (8<sup>th</sup> – 12<sup>th</sup> grades) - .5 credit.

This semester course aims to integrate science and cooking and to give students ample hands-on time in the kitchen. Students will earn their food handler's permit. Lessons and units cover a broad range of topics including: food safety and preventing food borne illness, kitchen responsibility and clean-up, what makes food healthy and not so healthy, tracing food back to its sources including gardening and food forestry, cooking methods and skills, kitchen tools and supplies, and international foods. Science skills include performing bacteria experiments and cooking experiments, learning the chemistry of vitamins and nutrients, identifying and classifying different plants/ingredients, quantifying nutritional information, and adjusting recipes mathematically.

08040000030 Paleontology (10<sup>th</sup> – 12<sup>th</sup> grades) - .5 credit. Pre-requisite: Biology

This is a semester-long in-depth lab and field-based course in Paleontology. The course is organized around two essential questions: (1) "How did the dinosaurs (and other animals at the end of the Mesozoic) die anyway?," which guides the study of fossils and reading the earth's history, and (2) "Could Jurassic Park be real?," which guides the study of dinosaurs, cladistics, and fossil fuels.

08050000050 Science Research (8<sup>th</sup> – 12<sup>th</sup> grades) - .5 credit

In this course students will design, conduct, and present finding from their own experimental or engineering project. This course may be repeated for up to 4.0 total credits. Projects will be prepared following guidelines for the Salt Lake Valley Science and Engineering Fair (SLVSEF). Each student is expected to enter a project in the City Academy Science, Math, and Engineering Fair for qualification for entry in the SLVSEF. Students will learn how to research, plan, conduct, and report on experimental and engineering projects.

01000000100 Financial Literacy (10<sup>th</sup> – 12<sup>th</sup> grades) - .5 credit required

This semester course is required of all students and there are no substitutes. This course is designed to help students prepare for the choices and decisions of today's financial challenges. Information about income, money management, spending and credit, saving and investing, consumer protection, and risk management will be addressed.

25020000050 Internship: Academic Service Learning (11<sup>th</sup>-12<sup>th</sup> grades) - .5 credit required for college ready graduation

In this semester course students will learn and develop through active participation in thoughtfully organized service learning internship experiences in the field that (1) meet actual community needs, (2) are coordinated in collaboration with the school and community, (3) are integrated into each student's academic curriculum, (4) provide structured time for students to think, talk, and write about what they did and said during the service project, (5) provide students with opportunities to use newly acquired academic skills and knowledge in real life situations in their own communities, (6) enhance what is taught in the school by extending student learning beyond the classroom, (7) help to foster the development of a sense of caring for others, and (8) help students understand career opportunities.