RIDGE VIEW ACADEMY

2015-2016 Course Descriptions

Mathematics

04962—Intervention Math

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This hexter course focuses on beginning algebra concepts. Emphasis will be on basic number sense, data relationships, graphing factual information, solving basic algebraic equations, algebraic word problems, number patterns, and linear functions. Students are provided the opportunity to apply problem solving to real world algebraic application that they will face throughout their life.

04330—Geometry 1-1

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

The course provides the student with language, models, and logic of geometry. This course introduces and expands on the concepts of tools of Geometry; geometric figures; triangle relationships; measurements in planes and space; reasoning; congruency; quadrilaterals; similarity; triangles; polygons; basic trigonometry. Students will master the essential concepts of geometry as it is used to generalize problem-solving situations and gain an appreciation and understanding of its historical roots.

04331—Geometry 1-2

Prerequisite: Passing grade in Geometry 1-1.

Course Length: 1 hexter

Credits: 2.5

The course continues to build upon the concepts introduced in Geometry 1-1.

04225—1 Algebra 1-1

Prerequisite: 80% score on pretest or passing grade in Intervention Math

Course Length: 1 hexter

Credits: 2.5

This course takes many algebra topics to a deeper level. The course begins with a review of basic number sense and progresses through solving basic one-step and two-step equations.

04225—2 Algebra 1-2

Prerequisite: Passing grade in 1-1

Course Length: 1 hexter

Credits: 2.5

This course is a continuation of Algebra 1-1. Topics include solving proportions, multi-step equations, absolute value equations, inequalities, and linear functions.

04225—3 Algebra 1-3

Prerequisite: Passing grade in 1-2

Course Length: 1 hexter

Credits: 2.5

This course is a continuation of Algebra 1-2. Topics include solving systems of equations and inequalities (linear and non-linear), quadratic functions, exponential functions.

04225-4 Algebra 1-4

Prerequisite: Passing grade in 1-3

Course Length: 1 hexter

Credits: 2.5

This course is a continuation of Algebra 1-2. Topics include the Pythagorean Theorem, distance formula, square root functions, polynomials, rational expressions and functions.

04230-1 Algebra 2-1

Prerequisite: Passing grade for Algebra 1-4 and/or teacher signature

Course Length: 1 hexter

Credits: 2.5

This course is a continuation of Algebra 1. Topics include properties of parabolas and quadratic equations, inverses and square root functions, complex numbers, completing the square and the quadratic formula; power functions and their inverses, polynomial functions and equations, dividing polynomials; exponential and logarithmic functions and their graphs; combinations and the binomial theorem.

04230—2 Algebra 2-2

Prerequisite: Passing grade for Algebra 2-1 and/or teacher signature

Course Length: 1 hexter

Credits: 2.5

This course is a continuation of Algebra 2-1. Topics include inverse variation and their graphs, rational expressions and equations; the unit circle, radian measure, trigonometric functions, oblique and right triangles; conic sections, parabolas, circles, ellipses, hyperbolas, and non-linear systems.

04330 — Financial Literacy

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course aligns with Colorado's description of 21st century skills. It is a synthesis of the essential abilities students must apply in our fast changing world. Today's students need a repertoire of knowledge and skills that are more diverse, complex, and integrated than any previous generation. Personal Financial Literacy is inherently demonstrated in each of Colorado 21st Century Skills. Topics include independent living, budgeting, financial competency, and personal finance.

04340—Statistics

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

Statistics is the study of how to collect, organize, analyze and interpret information, specifically numerical data collected from sample populations. This course also covers elementary probability concepts—how and where it is used. The relationship between probability and statistics will be analyzed, and methods for communicating results will be explored.

04345— AP Statistics Prerequisite: None

Course Length: 3 hexters

Credits: 2.5

Statistics is the study of how to collect, organize, analyze and interpret information, specifically numerical data collected from sample populations. This course also covers elementary probability concepts—how and where it is used. The relationship between probability and statistics will be analyzed, and methods for communicating results will be explored. This course will continue to enhance the academic knowledge of students with the focus being on taking and passing the AP test.

English

10017—Read 180 Lab

Prerequisite: None

Course Length: 1 hexter (Determined by student reading progression)

Credits: 2.5

This class is designed for struggling readers. This course will focus on basic reading strategies. Students will focus on accomplishing individualized reading goals through the Read 180 curriculum. This course will cover the six main areas of focus within reading. This course aims to increase the reading and writing abilities of students with direct and highly individualized instruction.

01357-1 Introduction Literature and Composition I

Prerequisite: Passing SRI test score or completion of Read 180 lab

Course Length: 2 hexters

Credits: 5 credits

Introduction Literature and Composition is a course meant to augment the General Introduction Literature and Composition Curriculum. This course is designed to develop and challenge student ability in reading, literary analysis, writing, and presenting at the high school level. Extended reading and literary selections are taken from adopted texts and the recommended reading list.

11357-2 Introduction Literature and Composition II

Prerequisite: Passing SRI test score or completion of Read 180 lab

Course Length: 2 hexters

Credits: 5 credits

Introduction Literature and Composition is a course meant to augment the General Introduction Literature and Composition Curriculum. This course is designed to develop and challenge student ability in reading, literary analysis, writing, and presenting at the high school level. Extended reading and literary selections are taken from adopted texts and the recommended reading list. This course can be taken before or after Introduction Literature and Composition I as a stand alone course.

01405-1 American Literature I

Prerequisite: Passing SRI test score or completion of Read 180 lab

Course Length: 2 hexters

Credits: 5

American Literature is a course meant to augment the General American Literature Curriculum. Students will spend the quarter focusing on a single author, genre, in American Literature from 1500 to 1900, with special emphasis on social and literary movements and conflicts throughout the period. This course utilizes literature from all cultures and eras, with special emphasis on social and literary movements and conflicts throughout the period.

01405-2 American Literature II

Prerequisite: Passing SRI test score or completion of Read 180 lab

Course Length: 2 hexters

Credits: 5

American Literature is a course meant to augment the General American Literature Curriculum. Students will spend the quarter focusing on a single author, genre, in American Literature from 1900 to present, with special emphasis on

social and literary movements and conflicts throughout the period. This course utilizes literature from all cultures and eras, with special emphasis on social and literary movements and conflicts throughout the period. This course can be taken before or after American Literature I as a stand alone course.

01315-1 World Literature I

Prerequisite: Passing SRI test score or completion of Read 180 lab

Course Length: 2 hexters

Credits: 5

This elective course presents a variety of novels, stories, poems and plays from around the world. Students are directed to analyze literature with an understanding of the importance of each genre and its particular vocabulary as well as making connections to world events. Students are encouraged to celebrate the wide variety of cultures and ethnicities on the planet and compare their situations to those of others around the world. Students are also required to develop vocabulary, editing skills and composition skills in order to properly demonstrate the content of the course.

01315-2 World Literature II

Prerequisite: Passing SRI test score or completion of Read 180 lab

Course Length: 2 hexters

Credits: 5

This elective course presents a variety of novels, stories, poems and plays from around the world. Students are directed to analyze literature with an understanding of the importance of each genre and its particular vocabulary as well as making connections to world events. Students are encouraged to celebrate the wide variety of cultures and ethnicities on the planet and compare their situations to those of others around the world. Students are also required to develop vocabulary, editing skills and composition skills in order to properly demonstrate the content of the course. This course can be taken before or after Introduction World Literature I as a stand alone course.

01420—AP Literature

Prerequisite: Teacher recommendation

Course Length: 3 hexters Credits: 7.5 credits

The AP Literature and Composition course is open to a limited number of qualified and highly motivated seniors. The course builds on the analytical skills acquired in previous honors Language Arts courses and prepares college-bound seniors for the rigors of college writing. Preparation for the College Board Advanced Placement Literature exam is emphasized in the form of frequent in-class essays and grading scales that are based on College Board's numerical scale. Qualified students who enroll in the course are expected to read widely and in depth, to write with competence, and to initiate perceptive and articulate discussions. Discussions, presentations and written assignments will focus on the craft of writing, in other words the choices writers make and the effects those choices have on audiences. This course, as all courses in the Language Arts Department, emphasizes the four communication skills of writing, reading, speaking, and listening.

31367—English Language Development

Prerequisite: ELL identified through District questionnaire and assessment

Course Length: TBD Credits: 2.5 per hexter This course is designed for students who have limited abilities to read, write, listen, or speak in English. Students classified as NEP (Non-English Proficient) by the ACCESS exam will receive instruction via this three-section course. Each section emphasizes a particular domain of language acquisition. For example, one section emphasizes speaking and listening and incorporates the Read 180 computer program, while the others emphasize reading and writing, respectively. The Edge Program and a variety of other materials are introduced at this level and skills are presented through various thematic units; also, these materials expose students to poetry and drama as well as novels. Students examine and practice grammatical structures, the correct use of punctuation, and are accountable for developing Common Core vocabulary and correct spelling.

Science Department

03622—1 Earth Science I ICPE (Introductory Chemistry, Physics, and Earth Science)

Prerequisite: None Course Length: 2 hexters

Credits: 5 credits

*While 9-12 graders may take this course, it needs to be the first high-school science experience students have.

This course introduces the students to the world of science. It covers the scientific method, metrics, interactions of matter, the periodic table, valence electrons, motion and forces, sound and light, plate tectonics, oceanography, and astronomy.

03622—2 Earth Science II ICPE (Introductory Chemistry, Physics, and Earth Science)

Prerequisite: None Course Length: 2 hexters

Credits: 5 credits

This course continues the introduction of Earth Science I and focuses on Meteorology and Geology as well as topics from Earth Science I including but not limited to scientific method, metrics, interactions of matter, the periodic table, valence electrons, motion and forces, sound and light, plate tectonics, oceanography, and astronomy. This course can be taken as a standalone course prior to Earth Science I.

03560—1 Biology I (Physiology)

Prerequisite: (Preferably students in this class will have taken ICPE)

Course Length: 2 hexters

Credits: 5 credits

Physiology is a course that explores the functions of the human body's organ systems. Concepts gained in labs will be applied to current medical trends and technologies. Students will begin with an overview of cell and tissue functions. The emphasis will be on understanding the relationships between various body structures and their corresponding functions. Students will continue their study with an in-depth look at the body systems including, but not limited to, digestive, respiratory, cardiovascular, reproductive, nervous, and excretory systems.

03560—2 Biology II (Vertebrate Zoology)

Prerequisite: (Preferably students in this class will have taken ICPE)

Course Length: 2 hexters

Credits: 5 credits

Historically, animals provided man with basic necessities such as food, shelter, and clothing, and more recently animals provided the inspiration for designing the shapes of airplanes, jets, and submarines. Today, animals have proven valuable in many other ways, such as in scientific research on human medicines, aesthetic enjoyment, companionship, ecological stability, and in offering us insights into how to live successfully within our environments. Students in Zoology will study the importance of animals to man and the environment in general, and the importance of specific animal groups in particular. While studying and observing animals (involving some dissection), students will discover how animals in aquatic and terrestrial environments are adapted to overcome five major problems of survival: getting nutrition, removing waste, obtaining oxygen, maintaining proper water balance, and reproducing. Students will also design and conduct a study of animal behavior. Other class topics will include animal classification, adaptations, ecology, evolution, and zoology-related professions.

03585—Introduction to Chemistry

Prerequisite: None Course Length: 1 hexter Credits: 2.5 credits

This course presents the structure and organization of matter, the conversion of matter from one form to another, chemical reactions, acids and bases, and gases.

03690—Introduction to Physics

Prerequisite: ICPE and preferably Biology

Course Length: 1 semester

Credits: 5

This course is recommended for students who are interested in mathematics, engineering and the physical world. Students will do laboratory investigations on the concepts of acceleration, gravity, projectiles, forces, vectors, friction, circular motion, buoyancy, energy, momentum, sound, lenses, mirrors, and electricity. Take physics and you'll learn how fast you can drive your car around a corner and still stay on the road; why you should drive a big massive car; how light bends and reflects; and why you can stick your tongue in one side of a wall plug and not get shocked. You will also learn why carrying a suitcase is not work, why the moon stays in orbit around the earth, why astronauts are weightless in orbit, and why you can shoot a bullet horizontally and drop a rock at the same time and they will both hit the earth at the same time.

Social Studies Department

02610—Geography I (World)

Prerequisite: None Course Length: 2 hexters

Credit: 5

In this course, students investigate and understand basic concepts of geography, including geographic tools, physical and human geography, earth's surface, human population patterns, and human interaction, and learn to apply them locally, nationally and globally. This course focuses on World Geography.

02615—Geography II (United States)

Prerequisite: None Course Length: 2 hexters

Credit: 5

In this course, students investigate and understand basic concepts of geography, including geographic tools, physical and human geography, earth's surface, human population patterns, and human interaction, and learn to apply them locally, nationally and globally. This course focuses on U.S. Geography.

02500—1 American History I

Prerequisite: None Course Length: 2 hexters

Credit: 5

This course examines events and issues in American history from Jamestown through the Civil War and Reconstruction. Through reading, writing, and discussion, students develop an understanding of how and why the United States has become a diverse and ethnically rich nation.

02505 — 2 American History II

Prerequisite: Preferably American History 1

Course Length: 2 hexters

Credit: 5

This course examines events and issues in American history from the post-Reconstruction era to Watergate. Through reading, writing, and discussion, students develop a further understanding of the history of our great nation as it enters the modern era and establishes itself as the leading nation in the world.

02485—Civics

Prerequisite: None Course Length: 2 hexters

Credit: 5

This course explores the government of the United States and focuses on individual rights, how the U.S. government operates, checks and balances, political parties, individual branches of government, the U.S. Constitution, federalism, the electoral process, state and local government, and international relations.

02435—Economics

Prerequisite: None Course Length: 2 hexters

Credit: 5

The purpose of Macroeconomics is to give students a thorough understanding of the principals of economics that apply to an economic system as a whole. Particular emphasis will be placed upon the study of national income, price determination, economic performance measures, economic growth and policy, and international economics.

02750—World History

Prerequisite: None Course Length: 2 hexters

Credit: 5

This course provides students with a survey of world history from classical empires to the present. While it exposes them to a broad view of world events, the focus of this course is to provide students with an understanding of the events, people, ideas and institutions which have contributed to the modern World. Students will be required to investigate the political, intellectual, economic, and social roots of the modern world, as well as to study the interactions and conflicts which arose as the West came into contact with the other cultures and civilizations of the world. Emphasis will be given to the coverage of world history vs. western civilization.

02675—Philosophy

Prerequisite: None Course Length: 2 hexters

Credit: 5

Students will examine the five basic world religions: Judaism, Christianity, Islam, Hinduism, and Buddhism. There will be a cursory investigation of some of the world's smaller, yet influential religions as well. Additionally, the students will consider the basic ideas surrounding major philosophical theories having significant impact on societies. Students will investigate both the historical and current influences these religions and philosophies have on societies. A desire to share ideas, debate issues, and respect everyone's opinions is essential.

02635—Colorado History

Prerequisite: None

Course Length: 2 hexters

Credit: 5

Presents the story of the people, society, and cultures of Colorado from its earliest Native Americans, through the Spanish influx, the explorers, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists, and the modern state.

RVA Electives

07511—Effective Choice (T4C)

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course is designed to assist the student in developing the skills needed in order to be successful citizen in the community while having an independent lifestyle. This course utilizes the Thinking 4 a Change curriculum

03740 CPR / First Aid

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

Students are taught to understand and apply skills as required for First Aid and CPR under guidance of the American Red Cross, to include: Identifying and treating signs and symptoms of cuts and fractures, choking, cardiac distress, heart failure, cardiac arrest, heart attack, and shock.

06300 High School Physical Education

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course meets every day of the week for one hour. It is designed to assist the student in developing the skills necessary to develop and maintain personal physical fitness. The course focuses on three main sections: timed three-mile runs, group runs, and 18 X 20's.

Art

05520—Art Craft

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course is an introduction to basic drawing, ceramics, and other modalities of Art. Students will learn art vocabulary along with the application into several personal projects.

05528—Art Craft Advanced/ART HISTORY

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This is an introduction into studio art. In this much more extensive course, students will learn art vocabulary, study art history, and then apply this into all the elements of art with studio projects.

Health

03742—American Heart Association Instructor Trainer

Prerequisite: Teacher Recommendation

Course Length: 1 hexter

This study focuses on qualifying students as certified instructors, through the American Red Cross on CPR and First Aid.

03744—Alcohol and Drug Education

Prerequisite: None Course Length: 2 hexters

Credits: 5

An area of healthy living education focuses on the overall dangers and risk of alcohol and drugs to the student and family.

07461 Fatherhood/Teen Parenting

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

A majority of our young men do not have a father or a healthy family in their lives. They are striving with the worldview of gangs, drugs and a myriad of issues and nearly a third of them have a child already. Fatherhood Empowerment is a forty-eight session elective / focus group that covers the issues facing young men concerning being a father and a productive man in society. It deals with past and present issues and the extreme importance of a father in a child's life.

06440 JROTC

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

The purpose of Junior ROTC is to motivate high school students to become better citizens. The LET I course is a one year course, followed by Let 2,3, and 4. The curriculum includes instruction in leadership, citizenship, communication, history, life management skills, and physical fitness. Cadets are required to wear their uniform once a week. All uniforms, textbooks and curriculum materials are provided at no cost to the students. Optional extracurricular opportunities exist for the drill team, rifle team, saber team, color guard, honor guard and raider team.

05611 Robotics

Prerequisite: None Course Length: 3 hexter

Credits: 7.5

Using robots we will cover the fundamentals of problem solving, program design, algorithms and programming using a high-level language. A robot is an embedded system of software and hardware. Programming and building robots applies science, technology, engineering and math (STEM) concepts. This course introduces the fundamental concepts of programming and robotics.

07461 AVID

Prerequisite: AVID Coordinator referal

Course Length: 3 hexter

Credits: 7.5

AVID (Advancement Via Individual Determination) is a program to prepare highly motivated students who show high potential for college success, but may be currently underachieving. These students demonstrate the skills necessary to pursue a college preparatory path for admission to a four-year college or university. This four-year course is designed to support students with GPAs ranging from 2.5 to 3.5 whom have not had previous experience success in Honors or AP classes, but seek the college preparatory experience. AVID provides academic instruction and support to students to take a rigorous course load, prepares them for eligibility to four-year colleges and universities, provides college-level skills, increases their coping skills, and further motivates program participants to seek out areas of interest, appropriate colleges, and resulting careers

07671 Health and Nutrition

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

Health Education is based on developing skills in relation to age appropriate health topics. By developing skills related to effectively accessing health resources, communicating, analyzing peer and media influences, goal setting, decision making, and health advocacy, students at RVA will be able to achieve and maintain optimal wellness.

07674 Life Skills Prerequisite: None Course Length: 1 hexter

Credits: 2.5

Students will gain daily living skills through a variety of activities to include meal planning, grocery shopping, cooking, budgeting and learning life-long healthy habits.

09520 Job Readiness

Prerequisite: Case Manager Referral

Course Length: 1 hexter

Credits: 2.5

Students research how interests, aptitudes, abilities and personalities affect career choices. Gain employability skills by creating a resume, become skilled in job search and pre-job interview preparation, and participate in mock job interviews. In addition, students increase their personal financial skills. Students develop an understanding for the relationship between education and employability.

Music

0630—Band

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

These course will teach tone production, articulation, range, dynamic, and technical facility of all instruments, and for players at every stage of development, including beginners. Instrumental music will also provide students with sophisticated knowledge in music, literature, instrument techniques, group coordination, and an appreciation for music understanding for music through performance in band.

05655—Choir

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course provides the opportunity for the continued development of the skills necessary for effective participation in a performing vocal ensemble. Choir also provides students with sophisticated knowledge in music literature, choral techniques, group coordination, and an appreciation of choral music as an art form.

CTE Department

C-Tech

07139-1—Network Cable Installation

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course offers a lab-centered introduction to basic electronics. No previous experience in electronics is needed. Students will build and test many different types of circuits. Two projects will be built during the year. The characteristics of both analog and digital electronics will be studied, as well as their application in today's world. Some of the specific topics will include: DC and AC circuits, transistor amplifiers, digital logic and processing, introduction to Robotics, and consumer electronic devices. This course ends with a nationally recognized industry certification.

07139-2—Telecommunications and Computer Science

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course is designed for students to acquire personal and business skills in the application of word processing, database, and spreadsheet software. Other applications will cover graphics, integrated applications, desktop publishing and telecommunications. It is suggested that students have some background in keyboarding and data entry. This course ends with a nationally recognized industry certification.

Barbering

07837—Barbering

Prerequisite: Must be 16 years old

Course Length: 1 hexter

Credits: 2.5

This course provides the training to lead to a lucrative and growth filled career offering opportunities for artistic and creative expression. Barbering refers to the performance of those techniques and arts such as hair cutting, shaving, massaging, facial treatments, and knowledge of bacteriology, anatomy, as well as safe work practices.

07838—Barbering II

Prerequisite: Must be 16 years old

Course Length: 1 hexter

Credits: 2.5

This course provides all of the hands on lessons with live models that are taught during the day block classes. The opportunity for professional growth in this course is immeasurable.

Bicycle Mechanics and Repair

06262—Bicycle Mechanics and Repair

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course is suited to shop assemblers, home mechanics, and fleet maintenance personnel. All aspects of assembling, adjusting, and basic maintenance of derailleur bikes are covered. For the experienced assembler who would like to take the BSE Level 1 Certification test, this course is excellent preparation..

Construction

06806—Construction Technologies

Prerequisite: Instructor Approval

Course Length: 1 hexter

Credits: 2.5

This class is designed to give the students practical application of theories that are learned in the day blocks. Students will use one or more of the following: problem solving, critical thinking, teamwork, and time management. Students will build various projects to meet all applicable building codes, using carpentry tools, hand tools, and power tools.

06960—Manufacturing/Fabrication

Prerequisite: Instructor Approval

Course Length: 1 hexter

Credits: 2.5

Reinforcing academic/vocational integrated learning and human relation skills. The course emphasizes learning opportunities and theoretical study of welding, manufacturing, and fabrication.

08516—Trowel Trades

Prerequisite: Instructor Approval

Course Length: 1 hexter

Credits: 2.5

Reinforcing academic/vocational integrated learning and human relation skills. This course emphasizes learning opportunities and theoretical study of a variety of various trowels trades and other essential tools and equipment.

Culinary

07369—Introduction to Culinary Arts

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This is the first course for all culinary students. This class provides the basic understanding of the fundamentals of food safety and sanitation. Students will be trained through the National Restaurant Association Education Foundation ServSafe training curriculum and become eligible to take the national certification test upon completion.

07358—The Ridge

Prerequisite: Introduction to Culinary Arts

Course Length: 1 hexter

Credits: 2.5

This is the second course for culinary students. This class covers culinary history, knife safety and skills, professional equipment, culinary measurement, cooking methods, and recipe conversion.

Media Productions

05066—AA Multimedia 1

Prerequisite: None Course Length: 1 hexter

Credits: 2.5

This course will look at the ethics and legalities of newsgathering and news writing. Students will apply this knowledge towards the fundamentals of news interviewing, writing and reporting skills, to include advertisements, headline stories, attributions, story structures, page layout and design, development of a newsletter and television news scripts. Students will plan, design and develop multimedia projects through the use of software and will function in teams to create a variety of presentations, including audio, video, images, text and graphics.