



# **Red Mountain High School**

**Honors, AA, AP and  
Dual Enrollment Courses  
Juniors/Seniors**

**2009-2010**



Note: Beginning with the class of 2011, students must be enrolled in the course the entire year in order to receive weighted credit.

## Academic Decathlon

### AD86W Academic Decathlon

Grade Level: 10-12

Difficulty: High

Prerequisites: See counselor

2 sem - 1.0 credit  
(.5 English credit; .5 elective credit)

**Course Description** - A two-semester course specifically designed to prepare an Academic Team to compete in ten areas of study: art, economics, essay, language and literature, music, science, social studies, speech, interview and impromptu, and math. Students taking the Academic Decathlon class will be granted 1/2 English credit one time and 1/2 elective credit. (Note: Arizona and other universities do not recognize this course as an English credit.) Repeating the course earns elective credit. A high level of competition is fostered in an academic setting. *This class carries a weighted grade status.*

## Agricultural Science

### AG25 Introduction to Agricultural Science

Difficulty: Average

2 Sem - 1.0 credit

**Course Description** - This class provides career exploration and hands on exploratory experiences in areas to include animal science, care and management of animals, plant growth and greenhouse production, natural resources and environmental management, leadership development, food science, and technology. *Offered as a dual enrollment option through Mesa Community College.*

### AG31 Animal Science

Difficulty: Average

Prerequisites: AG30 or SC49

2 Sem - 1.0 credit

**Course Description** - Designed to introduce students to the fundamentals of animal anatomy, physiology, genetics, reproduction, growth, nutrition, health, and agribusiness principles. Students will work with small and large animals on the land lab. Leadership development is provided through FFA. *Offered as a dual enrollment option through Mesa Community College.*

### AG35 Veterinary Science

Grade Level: 11-12

Difficulty: Average-High

Prerequisites: AG31 recommended

2 Sem - 1.0 credit

**Course Description** - Designed to develop skills of students with an in-depth focus of anatomy and physiology of various animals. Also encompasses the full scope of the technology of animal health and disease, including the sciences and arts of disease prevention, diagnosis, prognosis, and therapy. This course is recommended for students who are interested in a career in Veterinary Science. Leadership development is provided through FFA. Recommended for students who are interested in a career in Veterinary Sciences. *Offered as a dual enrollment option through Mesa Community College.*

### **AG51 Plant Science I**

Difficulty: Average-High

2 Sem - 1.0 credit

**Course Description** - Teaches the fundamentals of growing plants using biotechnology in propagating, using grafting, cuttings, seedlings and tissue culturing (via cloning, explants, etc.). DNA extraction and gene splicing will be taught for the production of disease resistance plants as well as plants used for medicine. Greenhouse management is crucial in growing the new generation of biotech plants. Skills taught include recognizing fertilizer deficiencies, plant diseases, insect damage, environmental deficiencies, applying growth stimulants and retardants, and plant identification. Students will grow bedding and container plants for school projects. Leadership development is provided through FFA. *Offered as a dual enrollment option through Mesa Community College.*

### **AG52 Plant Science II**

Grade Level: 11-12

2 Sem - 1.0 credit

Difficulty: Average-High

Prerequisite: AG51

**Course Description** - Designed to advance skills learned from Plant Science I: Greenhouse Management and/or to develop skills in the landscape industry. Students will develop skills associated with turf management, advanced landscape design, integrated pest control management, and agribusiness principles. Projects such as building waterscapes, concrete benches, laying brick, flagstone and concrete walkways, designing landscapes on Land CAD, irrigation design and installation, and exterior lighting in landscaping will be completed by students. Leadership development is provided through FFA. *Offered as a dual enrollment option through Mesa Community College.*

### **AG53 Biotechnology Agricultural Applications**

Difficulty: Average-High

2 Sem - 1.0 credit

Prerequisite: SC48 with a C or better

**Course Description** - This course is a continuation of basic lab operating skills developed in the level 1 biotechnology course (SC48). Concepts, processes, techniques, and current issues concerning genetically-modified plant products will be covered. Laboratory activities emphasize aseptic technique, culture methodology, laboratory equipment and plant organization, and micropropagation system development using specific ornamental, fruit and vegetable plants as examples. Leadership opportunities are provided through FFA. *Offered as a dual enrollment option through Mesa Community College.*

### **AG61 Applied Environmental Science**

Difficulty: Average

2 Sem - 1.0 credit

Prerequisite: AG25 recommended

**Course Description** - This course is designed to teach the fundamentals of natural resource management, environmental quality protection, hydrology, and water purification. Labs will include range, wildlife, soils, water forestry, and ecology management. Agribusiness principles will be taught, and leadership development is provided through FFA. *Offered as a dual enrollment option through Mesa Community College.*

### **AG77 Principles and Practices of Economics**

Grade Level: 11-12

2 Sem - 1.0 credit

Difficulty: Average-High

**Course Description** - This course is designed to introduce the student to agribusiness management and the free enterprise system, with an emphasis on capitalism and resource allocation. Includes instruction in governmental marketing structures, management systems, finance, productivity, sales, credit, personal budgeting, and career planning. Additional work covers international development and trade and government policy. Leadership training is developed through FFA. Both semesters required to obtain dual enrollment credit. \*NOTE: The first semester of AG77 satisfies the Economics course requirement for graduation. *Offered as a dual enrollment option through Mesa Community College.*

**AG90 Agricultural Cooperative Education (ACE)**

Difficulty: Low-Average

2 Sem - 3.0 credits

Prerequisite: Teacher approval

**Course Description** - A specialized full-year program designed for students to use on-the-job training to reinforce skills learned in previously taken agriculture classes. One hour of daily related classroom activities and a minimum of 15 hours weekly on the job training offers opportunity to earn high school credit while earning wages. Participation in FFA activities is part of class instruction. *Offered as a dual enrollment option through Mesa Community College.*

# Art

**AR80W Advanced Placement Studio Art**

Difficulty: Average - High

2 Sem - 1 credit

Course Workload: High; 3-5 hours per week. All research is done at home.

Prerequisite: 2 semesters in advanced art classes (can be concurrent enrollment)

**Course Description** - A variety of painting media is used. Offers the highly skilled junior or senior art student guidelines and instructions in the production and presentation of a portfolio for occupational or higher educational placement. Students will specialize in one of three portfolio options: 2-D, 3-D, or Drawing/Painting. There are 10 summer assignments required that are due the first 3 weeks of school. This class carries a weighted grade status. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student will earn college credit.*

**AR82W Advanced Placement Art History**

Difficulty: High

2 Sem - 1.0 credit

Course Workload: High

Prerequisite: 1 credit of high school Social Studies with a B or better

**Course Description** - A full-year introductory college course in the history of art (primarily western art, with some attention to the art of other cultures). The course is designed to increase the student's knowledge of art, artists, schools and movements; chronological periods and specific dates; and the subjects, styles and techniques of particular works of art. Homework includes essay questions, vocabulary definitions, maps and readings in the text. This class carries a weighted grade status. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student will earn college credit.*

# English

**EN39W AA Junior English**

Grade Level: 11

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisite: Teacher approval.

**Course Description** - Designed for the able and ambitious student. Focus is on literature and intermediate composition skills. *Fulfills the junior English requirements of EN34 and literature.*

**EN71W AP English Literature & Composition (Senior Advanced Placement English)**

Grade Level: 12

2 sem - 1.0 credit

Difficulty - High

Prerequisites: Strongly recommend EN35W, EN39W, or EN58W

**Course Description** - To prepare students for the advanced placement examination. Involves college-level reading and writing. Students are expected to take the year-end Advanced Placement test. This course fulfills the senior English requirement. *Upon completion of course, and passing the AP test, student may earn college credit.*

**EN72 English Composition 101**

Grade Level: 12

1 sem - .5 credit

Difficulty: Average - High

**Course Description** - Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. *Students must pass the ASSET test to be eligible for dual enrollment at Rio Salado Community College.*

**EN93W English Humanities 110**

Grade Level: 12

1 sem - .5 credit

Difficulty: High

**Course Description** - Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography, autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans. *Students must pass the ASSET test to be eligible for dual enrollment at Rio Salado Community College.*

## Family & Consumer Sciences

**FS51 Early Childhood Professions I**

Difficulty: Average

1 sem - 1/2 credit

**Course Description** - The study of human development from the prenatal stage through preschool. Emphasis placed on the growth and development of children, as well as examining the impact of caregivers on the health and well-being of children. FS52 must also be taken to receive dual enrollment credit. *Offered as a dual enrollment option through Mesa Community College.*

**FS52 Early Childhood Professions II**

Difficulty: Average

1 sem - 1/2 credit

Prerequisites: FS51

**Course Description** - The study of human development from the preschool through school-aged child. On-site lab experience includes a community preschool focusing on child guidance, appropriate play and learning, nutrition, safety, and program guidelines. *Offered as a dual enrollment option through Mesa Community College.*

**FS53 Teacher Training Program**

Difficulty: Average

2 sem - 1.0 credit

Prerequisite: Instructor approval

**Course Description** - This year-long course is an orientation to the teaching profession. Students are exposed to teaching careers and the education system through simulations, hands-on activities, and observations. In addition to the curriculum components, all students are required to participate in a field experience in a public school classroom for approximately 5 weeks. *Offered as a dual enrollment option through Mesa Community College.*

### **FS59 Design, Merchandising and Construction**

Difficulty: Average

1 sem - 1/2 credit

**Course Description** - Explores the construction component of interior or fashion design. Activities include sewing techniques, machine use and care, fabric selection, and hands-on projects related to apparel or interior design. *Offered as a dual enrollment option through Mesa Community College.*

### **FS64 Advanced Fashion Design and Merchandising**

Difficulty: Average - High

1 sem - 1/2 credit

Prerequisite: FS63

**Course Description** - This course is for students interested in further developing their knowledge of the fashion industry. Experiences may include job-shadowing, entrepreneurship, use of design technology, and the use of trade equipment. *Offered as a dual enrollment option through Mesa Community College.*

## Math

### **MA41W Honors Algebra II**

Difficulty: High

2 sem - 1.0 credit

Prerequisites: MA27 and MA30; placement test is required

**Course Description:** A fast-paced course that extends the concepts of algebra and geometry, and prepares students for enrollment in pre-calculus. Students will use analytical, numerical, graphical, and verbal approaches to solving problems. Topics include higher degree equations, functions, systems and graphs, and trigonometric functions. Use of a graphing calculator is required.

### **MA45W Pre-Calculus**

Grade Level: 10-12

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisites: MA41 or MA42 with a "C" or better

**Course Description:** Students will be exposed to an in-depth study of algebraic, trigonometric, logarithmic, exponential functions, related graphing applications and an introduction to limits. Students will use analytical, numerical, graphical, and verbal approaches to problem solving. Students must pass the ASSET test to be eligible for dual enrollment at Rio Salado Community College. *This course is offered as a dual enrollment option.*

### **MA50W Advanced Placement Calculus with Analytical Geometry AB**

Grade Level: 11-12

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisites: MA45W

**Course Description:** Parallels the usual first semester of college calculus and includes review and extension of analytical geometry, a study of functions, limits, continuity, differential calculus, transcendental functions, techniques

of integration. Both theory & applications are stressed. Students will use analytical, numerical, graphical, and verbal approaches to problem solving. Students are expected to take the year-end Advanced Placement test. Students must pass the ASSET test to be eligible for dual enrollment at Rio Salado Community College. *Upon completion of course, and passing the AP test, student may earn college credit. This course is offered as a dual enrollment option.*

### **MA51W Advanced Placement Calculus BC**

Grade Level: 11-12

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisites: MA50 and teacher recommendation

**Course Description:** Intended for students who have a thorough knowledge of analytic geometry and elementary functions in addition to college preparatory algebra, geometry and trigonometry. This class carries a weighted grade status. Students are expected to take the year-end Advanced Placement test. Students must pass the ASSET test to be eligible for dual enrollment at Rio Salado Community College. *Upon completion of course, and passing the AP test, student may earn college credit. This course is offered as a dual enrollment option.*

## Music

### **MU33W AP Music Theory**

Difficulty: High

2 sem - 1.0 credit

Prerequisite: Teacher recommendation

**Course Description** - MU33 is for the serious, advanced music student who wishes to broaden his/her scope in the science and fundamentals of music theory. Included is the study of harmony, music history, conducting, composition and arranging. AP Music Theory is a full year, weighted class which prepares students for the AP Exam in May. Students must pass the fall semester in order to continue in the spring. Placement is by teacher recommendation. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit. This course can be taken as dual enrollment through MCC.*

## Science

### **SC46W Advanced Placement Biology**

Difficulty: High

2 sem - 1.0 credit

Course workload: High

Prerequisites: SC49 or AG30 and SC71, SC72W or SC81

**Course Description** - A very rigorous lab-oriented course which will cover the major topics covered in a freshman college-level course. The class has a high level of difficulty and the student should be prepared to put considerable amount of time into the course. Students are expected to take the year-end Advanced Placement test. Upon completion of course, and passing the AP test, student may earn college credit. Note: This course includes topics of human reproduction and evolution. This course may include dissection. *This course can be taken as dual enrollment through Rio Salado Community College.*

### SC48W Biotechnology I

Difficulty: Average-High

2 sem - 1.0 credit

Prerequisites: SC49 or AG30 with a C or better

**Course Description** - Concepts, processes, techniques and issues in biotechnology are covered. Students will learn the chemistry, cell, organismic, and DNA biology needed to understand and conduct labs in the area of biotechnology. DNA extraction, fingerprinting and transformation are included in the curriculum. Leadership opportunities are provided through FFA.

### SC57W Advanced Human Anatomy and Physiology

Difficulty: High

2 sem - 1.0 credit

Course workload: High

Prerequisites: SC49 or AG30; SC71 or SC72W recommended

**Course Description** - A rigorous lab-oriented course. This class parallels with course offered in college. Students will study the structure and function of the human body systems. Course is recommended for students seeking a career in the medical field. Note: This course involves the detailed study of the human reproductive system. This course will include extensive dissection. *This course must be taken as dual enrollment through Rio Salado Community College.*

### SC72W College Prep Chemistry

Grade Level: 10-12

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisites: "B" or better in MA27 and MA30

**Course Description** - A course in which the unifying principles of chemistry are developed from experimentation. Emphasis upon understanding of principles rather than memorization of facts and descriptions. Extensive use of arithmetic, elementary algebra and geometry.

### SC77W Advanced Placement Chemistry

Grade Level: 11-12

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisites: SC71 or SC72W and MA27

**Course Description** - Very rigorous lab-oriented course that covers the major topics presented in a freshman college-level course. A second year course in chemistry intended for those students who are interested in a career in the sciences. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit. This course can be taken as dual enrollment through Rio Salado Community College.*

### SC82W Advanced Placement Physics

Grade Level: 11-12

2 sem - 1.0 credit

Difficulty: High

Course workload: High

Prerequisites: MA40 or MA41W and MA42

**Course Description** - A very rigorous, fast-paced course patterned after the General Physics courses of ASU and the Maricopa Community Colleges. Upon completion, the student will have covered all the material contained in a good college physics course. Students are expected to take the year-end Advanced Placement test. Upon completion of course, and passing the AP test, student may earn college credit. *This course must be taken as dual enrollment through Rio Salado Community College.*

# Social Studies

## SS39W Advanced Placement United States History

Difficulty: High

2 sem - 1.0 credit

Course workload: approx. 1 hour homework per day

**Course Description** - Prepares students for intermediate and advanced college courses by making demands upon them equivalent to those of full year introductory college courses. Requires good writing skills. This course meets graduation requirements for American/AZ History. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*

## SS52W Advanced Placement American Government

Difficulty: High

2 sem - .5 American Government credit

Course workload: approx. 1 hour homework per day

.5 Economics credit

Prerequisite: SS34/SS35 or SS39W or EN58W

**Course Description** - A survey course of national and state governments for college-bound students, including an opportunity to relate discussion of government to current events. Individual and/or group projects may be required. Students will learn how the economy works, how laws are made, monetary policy, the Constitution, exchange rates, stock market, Supreme Court decisions, and political ideology. This course fulfills the requirements of government and economics necessary for graduation. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*

## SS56W Advanced Placement Comparative Government and Politics

2 sem - 1.0 credit

Difficulty: High

Prerequisite: Teacher approval

**Course Description** - This course will provide students the conceptual tools to develop an understanding of some of the world's diverse political structures and practices. The course will encompass the study of six specific countries and their governments as well as general concepts used to interpret the political relationships and institutions found in virtually all national politics. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*

## SS59W We the People

Grade Level: 12

2 sem - .5 American Government credit

Prerequisite: Teacher Recommendation

.5 Economics credit

**Course Description** - This course will engage students in a program that develops a more profound understanding of, and appreciation for, the fundamental principles and values of our free society. It focuses on the common core of civic values and concepts that are fundamental to the theory and practice of democratic citizenship in the United States. There is an expectation that students will engage in extracurricular competitions. *Note: This course meets the graduation requirement for American Government and Economics.*

## SS64W Advanced Placement European History

Grade Level: 11-12

2 sem - 1.0 elective credit

Difficulty: High

Course workload: approx. 1 hour homework per day

Prerequisite: EN35W and SS34/SS35 or EN58W Block

**Course Description** - Course provides the student with a full academic year of advanced instruction in European history (1450-Present). Students trace the development in cultural, political, diplomatic, social, intellectual, and economic history through several chronological periods. Particular attention will be given to the development of

college prep skills. Summer reading is required. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*

**SS79W Advanced Placement Psychology**

Difficulty: High

2 sem - 1.0 elective credit

Course workload: moderate

**Course Description** - Introduces students to the systematic and scientific study of the behavior and mental processes of humans and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the methods psychologists use in their scientific research and practice. Students should be prepared to complete work equivalent to what they would encounter in an introductory college course in psychology. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*

## World Languages

**WL23W Spanish III**

**WL33W German III**

**WL43W French III**

Difficulty: Average-High

2 sem - 1.0 elective credit

Prerequisites: WL Level II

**Course Description** - Students develop and demonstrate language skills in more advanced forms of written and oral expression. Appropriate cultural components are studied. *Offered as a dual enrollment option through Rio Salado Community College.*

**WL24W AP Spanish IV**

**WL34W AP German IV**

**WL44W AP French IV**

Difficulty: Average-High

2 sem - 1.0 elective credit

Prerequisites: WL Level III

**Course Description** - Expanded language skills are developed, with emphasis on conversation, discussion, and production of compositions. Appropriate readings are drawn from a variety of literary sources. Skills necessary to take the optional Advanced Placement test are emphasized. Appropriate cultural components are studied. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*

**WL25W AP Spanish V**

**WL35W AP German V**

**WL45W AP French V**

Difficulty: Average-High

2 sem - 1.0 elective credit

Prerequisites: WL Level IV

**Course Description** - Skills necessary to take the optional Advanced Placement tests in Language and/or Literature in the target language are developed. Further study of literature in the target language and development of advanced oral and written skills are emphasized. Students are expected to take the year-end Advanced Placement test. *Upon completion of course, and passing the AP test, student may earn college credit.*