



Middle School Courses for High School Credit  
2016-2017

### **Grade 8 Pre-Advanced Placement Language and Literature**

#### *1 High School Elective Credit*

Pre-Advanced Placement Language and Literature provides enriched coursework for students in grade 8. Advanced Placement strategies are utilized to teach the New Mexico Common Core State Standards for English Language Arts. Units provide analysis of literary elements, reading of different genres, writing in different modes including analysis, synthesis of multiple texts and multi-media sources, grammar and mechanics, and the use of technology. Units of study focus on the central theme of societal change and are studied through the lenses of identity, good vs. evil, government, and personal relationships. Literature and informational text selections are both high-interest for students and rigorous. Examples of literature, informational text, and poetry selections include *Doctor Jekyll and Mr. Hyde*, *Comedy of Errors*, *The Sunflower: On the Possibilities and Limits of Forgiveness*, and "Mother to Son".

### **Integrated Science**

#### *1 High School Lab Science Credit*

This course is an introduction to Earth and Space Science integrated with physics and chemistry concepts. It is structured to tell the history of the Universe, starting with the Big Bang, followed with the formation of stars and galaxies. The final section examines the systems of the Earth and their impacts upon each other. The role of energy and matter is interwoven throughout the instruction. Throughout the course, scientific and engineering practices will be emphasized. Career information and current research in science, particularly in New Mexico, will be discussed. This course satisfies the laboratory science requirement for high school graduation.

### **Algebra I**

#### *1 High School Mathematics Credit*

This course includes the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations. This course will provide students with a basic foundation of algebra skills enabling them to advance to Geometry, and Algebra II.

### **Geometry**

#### *1 High School Mathematics Credit*

This course emphasizes an abstract, formal approach to the study of geometry and includes topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; rules of congruence, similarity, parallelism, and perpendicularity; and rules of angle measurement in triangles, including trigonometry, coordinate geometry, and transformational geometry.