



SYLLABUS TEMPLATE

Course Number Course Name	ED 216 Science and Math
Credit Value (Breakdown of theory and lab credits)	3 Theory
Catalog Course Description	This course prepares teacher credential candidates to use best practices in science and math teaching for K-8 students. Students will 1) Understand the nature and purpose of teaching constructivist, inquire-based science and math in the elementary school curriculum, especially FOSS and STC lessons used in northern New Mexico School Districts. 2) Make connections between the teaching of science and math in the classroom and learn why science and math should matter to people in northern New Mexico. 3) Explore best methods in teaching science and math to children of diverse ethnic, cultural and linguistic backgrounds. 4) Become knowledgeable of the current National Science Education Standards and Benchmarks (Next Generation Science Standards). Prerequisites: Math 150 and a 4 credit science course with lab. (3, 3T+0L)
Student Learning Outcomes of the course	All Education classes at NNM College are competency-based, meaning that students complete assignments that align to the New Mexico State Competencies for Entry-Level Teachers. With this in mind, upon completion of the course we expect that you will: <ol style="list-style-type: none"> 1. Understand the nature and purpose of teaching constructivist, inquiry-based science and math in the elementary school curriculum; especially FOSS and STC lessons used in northern NM school districts. 2. Be able to understand the importance of visual literacy and how they relate to process thinking skills in science. 3. Make connections between the teaching of science and math in the classroom and why science and math should matter to people in northern New Mexico. 4. Explore best methods in teaching science and math to children of diverse ethnic, cultural and linguistic backgrounds. 5. Become knowledgeable of the current National Science Education Standards and Benchmarks (Next Generation Science Standards). 6. Become knowledgeable of the current Math Standards for New Mexico. 7. Increase your confidence as a teacher and learner of math and science.
College-Wide Student Learning Outcomes	ED 216 learning objectives align with the following NNM College Wide Goal: <p>Communication Use the verbal, written, listening, and visual skills necessary to analyze, synthesize and cite information, construct arguments, identify and solve problems, and engage across academic fields and civic discourse.</p> <p>Critical Thought Infer specific contexts and situations for learning by asking essential questions and applying both quantitative or qualitative methodologies and processes to solve problems.</p> <p>Cultural Competence</p>



Ability to perceive situations from various cultural and ethical contexts; to realize the role of the individual in influencing societal consequences; understand the importance of character values such as but not limited to: truthfulness and personal integrity, sense of responsibility, sense of fairness and justice, to test conventional wisdom for the pursuit of truth empathy, compassion, and general good citizenship.

Information Literacy

Ability to use current technology including (where applicable) but not limited to: computer software such as word processors, statistics/analytical programs, simulation programs, musical/artistic programs, and other software that increases overall ability and understanding; machinery and industrial processes that contributes towards increased productivity and efficiency; Innovation or the application of creativity or original thought.