Liberal Arts - Math and Science

Liberal Arts Emphasis in Math and Science AA

The Liberal Arts with an Emphasis in Math and Science degree provides an area of emphasis for students that wish to develop a broad knowledge base while focusing on core mathematics and scientific skills useful for their intended transfer major. Natural science courses examine the physical universe, including its life forms, structure and natural phenomena that govern the universe. Mathematics course emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra, developing a quantitative framework for analysis of scientific principles. Students will gain comprehension of the integrated nature of mathematics and the sciences and will be able to execute experimental methods, assessment and interpretation of scientific phenomena.

Transfer majors appropriate for this area of emphasis include, but are not limited to: Biochemistry, Biology, Biotechnology, Chemistry, Earth Science, Ecology, Genetics, Geology, Geosciences, Health Science, Natural Science, Physical Science, Physics, Physiology and pre-professional majors including Pre-Dental, Pre-Medical, Pre-Physical Therapy and Pre-Veterinary. Students should consult the catalog of their intended transfer university for any local requirements in addition to those earned through this degree and contact a West Hills College Lemoore counselor for further information or assistance.

Program Student Learning Outcomes

Upon completion of the program, student will be able to:

- identify and describe the structures and functions of living organisms.
- identify the composition of matter and types of energy.
- use mathematics to understand and interpret the world around them.
- perform quantitative analysis on sampled data.

Required Coursework

Choose 18 units from the following: (at least 1 course must be from mathematics course (MATH) and 1 course must be from science courses (BIO, CHEM, GEOL, GEOG, PHYSCI, PHYSICS)

Course #	Title	Units
Required Core Courses		
MATH-001A	Introduction to Calculus	
MATH-001B	Calculus with Applications	
MATH-002A	Multivariate Calculus	
MATH-002B	Differential Equations	
MATH-003A	Linear Algebra I	
MATH-015	Precalculus	
MATH-025	Introduction to Statistics	4
MATH-045	Contemporary Math	3
BIO-010	Fundamentals of Biology	
BIO-015	Biology for Education	
BIO-032	Human Anatomy	
BIO-035	Human Physiology	
BIO-038	Microbiology	
CHEM-001A	General Chemistry I	
CHEM-001B	General Chemistry II	
CHEM-002A	Introductory Chemistry	
GEOG-001	Physical Geography	
GEOL-001	Physical Geology	
GEOL-003	Historical Geology	
PHYSCI-001	Survey of the Physical Sciences	4
PHYSICS-002A	Mechanics & Thermodynamics	
PHYSICS-002B	Electricity, Magnetism, Optics & Modern Physics	
PHYSICS-004A	Classical Mechanics	
PHYSICS-004B	Electricity, Magnetism & Waves	
PHYSICS-004C	Thermodynamics, Optics, & Modern Physics	

Special Note: A student may receive credit for either BIO 010 or BIO 015, either CHEM 001A or CHEM 002A either PHYSCS 002A or PHYSICS 004A, either PHYSICS 002B or PHYSICS 004B