Department of Education

PHYSICAL SCIENCE

AYA MAJOR/CHEMISTRY MINOR

Program Outline

For Students Under the 2023-2024 BW Catalog

Degree Earned: Bachelor of Science in Education (BSEd)
License Earned: Physical Science, 132020
OAE Exams: 003 Assessment of Professional Knowledge: Adolescence to Young Adult (7-12); 009 Chemistry; 035 Physics
GPA Requirements for Graduation: 2.800 Cumulative, 2.800 in EDU Courses, 2.600 in courses required for Physical Science Program

Name _____ ID# _____ Advisor _____

Courses marked with # fulfill the CHM Minor requirements. CHM Minor requires 22.5 credits.

Course #	Course Title	Hours	Advising Notes: Unless otherwise noted, course is offered in Fall and Spring
REQUIRED COURSES IN CHEMISTRY			
CHM 111#	General Chemistry I	4	
CHM 112 #	General Chemistry II *Prerequisite: CHM 111*	3	
CHM 115#	General Chemistry Lab *Prerequisite: CHM 111; Corequisite: CHM 112*	1	
CHM 221#	Quantitative Analysis *Prerequisites: CHM 112 and CHM 115* *Corequisite: CHM 225*	3	Offered Spring Only
CHM 225#	Quantitative Analysis Laboratory *Corequisite: CHM 221*	1	Offered Spring Only
CHM 251#	Organic Chemistry I *Prerequisite: CHM 112 and CHM 115, or permission of instructor; Corequisite: CHM 255*	3	Offered Fall Only
CHM 252#	Organic Chemistry II *Prerequisites: CMM 251 and CHM 255; Corequisite: CHM 256*	3	Offered Spring Only
CHM 255#	Organic Chemistry I Laboratory *Corequisite: CHM 251*	0.5	Offered Fall Minimester B Only
CHM 256#	Organic Chemistry II Laboratory *Corequisite: CMH 252*	1	Offered Spring Only
CHM 341#	Inorganic Chemistry *Grade "C-" or better in CHM 251 and CHM 252*	3	Offered Fall Even Years Only
CHM 345#	Inorganic Chemistry Laboratory *Prerequisite: CHM 341*	1	Offered Spring Odd Years Only
Required Courses in Mathematics:			
MTH 141	Calculus I *Prerequisite: MTH 140 or an ACT Math Score of 27 or higher, a SAT Math Section Score of 550 or higher (if taken prior to March 2016), a SAT Math Section Score of 640 or higher (if taken after March 2016), or a SAT Math Test Score of 28.5 or higher, or instructor permission.*	4	

Required Courses in Physics:			
PHY 131	Physics for Scientists and Engineers I *Must be taken concurrently with PHY 151* *Prerequisites: The student must have 4 years of high school math including trigonometry or MTH 140*	4	Offered Spring Only
PHY 132	Physics for Scientists and Engineers II *Must be taken concurrently with PHY 152* *Prerequisites: The student must have 4 years of high school math including trigonometry or MTH 140* *Corequisites: PHY 152*	4	Offered Fall Only
PHY 151	Introductory Physics Lab I *Must be taken concurrently with PHY 131 unless given permission of instructor*	1	Offered Spring Only
PHY 152	Introductory Physics Lab II *Must be taken concurrently with PHY 132 unless given permission of instructor*	1	Offered Fall Only
PHY 233	Modern Physics *Prerequisites: The student is assumed to have taken PHY 131/132, PHY 145/146, or the equivalent and to have completed or be taking introductory calculus.*	4	Offered Spring Only