

**SCIENCE EDUCATION
CHEMISTRY CONCENTRATION**

**Grade Levels 5-12
REPA 3**

NOT VALID WITHOUT OFFICIAL TRANSCRIPT EVALUATION

CONTENT

**Semester
Hours**

Each of the following:

CHM	24100	Introductory Inorganic Chemistry	4
CHM	29400	Sophomore Chemistry Seminar (Not required if student declares major after the sophomore year)	1
CHM	34200	Inorganic Chemistry	3
CHM	37300	Physical Chemistry	3
CHM	37301	Physical Chemistry Laboratory	1
CHM	37400	Physical Chemistry	3
CHM	37401	Physical Chemistry Laboratory	1
PHYS	17200	Modern Mechanics	4

One of the following:

CHM	11500	General Chemistry (4)	4-5
CHM	12500	Introduction to Chemistry (5)	

One of the following:

CHM	13600	General Chemistry Honors (4)	4-5
CHM	11600	General Chemistry (4)	
CHM	12600	Introduction to Chemistry II (5)	
CHM	12901	General Chemistry with Biological Focus (5)	

One of the following:

CHM	26100	Organic Chemistry (3)	3
CHM	26505	Organic Chemistry (3)	

One of the following:

CHM	26300	Organic Chemistry Laboratory (1)	1-2
CHM	26500	Organic Chemistry Laboratory (2)	
CHM	26700	Organic Chemistry Laboratory Honors (2)	

One of the following:

CHM	26200	Organic Chemistry (3)	3
CHM	26605	Organic Chemistry (3)	

One of the following:

CHM	26400	Organic Chemistry Laboratory (1)	1-2
CHM	26600	Organic Chemistry Laboratory (2)	
CHM	26800	Organic Chemistry Laboratory Honors (2)	

One of the following:			4
CHM	32100	Analytical Chemistry I (4)	
CHM	32300	Analytical Chemistry I Honors (4)	
One of the following:			3
BCHM	56100	General Biochemistry I (3)	
CHM	33300	Principles of Biochemistry (3)	
CHM	43300	Biochemistry (3)	
CHM	53300	Introductory Biochemistry (3)	
One of the following (Calculus I):			4-5
MA	16100	Plane Analytic Geometry and Calculus I (5)	
MA	16500	Analytic Geometry and Calculus I (4)	
One of the following (Calculus II):			4-5
MA	16200	Plane Analytic Geometry and Calculus II (5)	
MA	16600	Analytic Geometry and Calculus II (4)	
One of the following (Calculus III):			4-5
MA	26100	Multivariate Calculus (4)	
MA	27101	Honors Multivariate Calculus (5)	
One of the following:			4
PHYS	24100	Electricity and Optics (3) AND	
PHYS	25200	Electricity and Optics Laboratory (1)	
		OR	
PHYS	27200	Electric and Magnetic Interactions (4)	
Total Content			55-66
<u>PROFESSIONAL EDUCATION</u>			
<u>Foundational Courses</u>			
EDCI	20500	Exploring Teaching as a Career	3
EDCI	27000	Introduction to Education Technology and Computing	3
EDPS	28500	Multiculturalism and Education	3
EDPS	23500	Learning and Motivation	3
EDST	26500	The Inclusive Classroom	3
EDST	20010	Educational Policies and Laws	1
EDPS	32700	Classroom Assessment	1
EDPS	43010	Secondary Creating and Managing Learning Environments	1
<u>Methods Courses</u>			
EDCI	30900	Reading in Middle and Secondary Schools: Methods and Problems	3
EDCI	42400	The Teaching of Earth and Physical Science in the Secondary Schools	3
EDCI	49800	Supervised Teaching (16 weeks)	10
One of the following:			2-3
EDCI	42800	Teaching Science in the Middle and Junior High School (2)	
EDCI	55800	Integrated Science, Technology, Engineering and Mathematics (STEM) Education Methods-Secondary (3)	

Total Professional Education 36-37