SCIENCE EDUCATION
CHEMISTRY CONCENTRATION

Grade Levels 5-12
REPA 3

NOT VALID WITHOUT OFFICIAL TRANSCRIPT EVALUATION

Purdue University Course Catalog 2022-2023

CONTENT			CREDIT HOURS
Required Science Education Core Courses			
CHM	24100	Introductory Inorganic Chemistry	4
CHM	29400	Sophomore Chemistry Seminar	1
CHM	34200	Inorganic Chemistry	3
CHM	37300	Physical Chemistry	3
CHM	37400	Physical Chemistry	3
PHYS	17200	Modern Mechanics	4
One of the following:			3
STAT	30100	Elementary Statistical Methods	
STAT	35000	Introduction To Statistics	
One of the following:			4-5
CHM	11600	General Chemistry (4)	
CHM	12600	Introduction to Chemistry II (5)	
CHM	12901	General Chemistry with a Biological Focus (5)	
CHM	13600	General Chemistry Honors	4
One of the following:			1-2
CHM	26500	Organic Chemistry Laboratory (2)	
CHM	26300	Organic Chemistry Laboratory (1)	
CHM	26700	Organic Chemistry Laboratory Honors (2)	
One of the following:			3
CHM	26100	Organic Chemistry	
CHM	26505	Organic Chemistry	
One of the following:			4-5
CHM	11500	General Chemistry (4)	
CHM	12500	Introduction to Chemistry I (5)	
One of the following:			3
CHM	26200	Organic Chemistry	
CHM	26605	Organic Chemistry	
One of the following:			1-2
CHM	26600	Organic Chemistry Laboratory (2)	
CHM	26400	Organic Chemistry Laboratory (1)	
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)	
			3

One of the following:			
CHM	33300	Principles of Biochemistry (3)	
CHM	53300	Introductory Biochemistry (3)	
BCHM	56100	General Biochemistry I (3)	
One of the following:			1
CHM	37301	Physical Chemistry Laboratory (1)	
CHM	37401	Physical Chemistry Laboratory (1)	
One of the following:			4
CS	17700	Programming with Multimedia Objects (4)	
CS	18000	Problem Solving and Object-Oriented Programming (4)	
One of the following:			4-5
MA	16100	Plane Analytic Geometry and Calculus I (5)	
MA	16500	Analytic Geometry and Calculus I (4)	
One of the following:			4-5
MA	16200	Plane Analytic Geometry and Calculus II (5)	
MA	16600	Analytic Geometry and Calculus II (4)	
One of the following:			4-5
MA	26100	Multivariate Calculus (4)	
MA	27101	Honors Multivariate Calculus (5)	
One of the following:			4
PHYS	27200	Electric and Magnetic Interactions (4)	
		OR	
PHYS	24100	Electricity and Optics (3) **AND**	
PHYS	25200	Electricity and Optics Laboratory (1)	
			Total Content 69-76

PROFESSIONAL EDUCATION

Educational Program Course Requirements			
EDCI	20500	Exploring Teaching as a Career ***required for TEP admission**	2
EDCI	27000	Introduction to Education Technology and Computing	1
EDCI	28500	Multiculturalism and Education ***required for TEP admission**	2
EDPS	23500	Learning and Motivation	2-3
EDPS	26501	The Inclusive Classroom	2
EDST	20010	Educational Policies and Laws ***required for TEP admission**	1
EDPS	32700	Classroom Assessment	1-3
EDPS	43010	Secondary Creating and Managing Learning Environments	1
EDCI	20001	Special Populations Seminar: Focus On Students with Disabilities and Differentiation Approaches	1
EDCI	20002	Special Populations Seminar: English Language Learners and Students with Gifts and Talents	1
EDCI	30900	Reading in Middle and Secondary Schools: Methods and Problems	3
EDCI	35000	Community Issues & Applications for Educators	1
EDCI	37001	Teaching and Learning English as a New Language	2-3
EDPS	24000	Children with Gifts, Creativity, and Talents	1
EDPS	24800	Differentiating Curriculum and Instruction	1
EDPS	36201	Positive Behavioral Supports	2
EDCI	49800	Supervised Teaching (16 weeks)	12

Methods Courses

EDCI	42400	The Teaching of Earth and Physical Science in the Secondary Schools[1]	3
EDCI	42800	Teaching Science in the Middle and Junior High School[1]	2
EDCI	55800	Integrated Science, Technology, Engineering and Mathematics (STEM) Education Methods-Secondary	
EDCI	49800	Supervised Teaching (16 weeks)[1]	12

Learner Pathway Selective 3

Pick **ONE** course from the selective below in a pathway of your choice (required). ABA courses are included if allowed by the plan of study. Students can take two additional courses in the same pathway to complete requirements for an add-on teaching license in ELL or HA or take one additional course in the SPED pathway for a certificate in SPED.

English Language Learners Licensure Pathway

EDCI	51900	Teaching English Language Learners (3)
EDCI	52600	Language Study for Educators (3)
EDCI	55900	Academic Language and Content Area Learning (3)

High Ability Licensure Pathway

EDPS	54200	Curriculum and Program Development in Gifted Education (3)
EDPS	54500	Social and Affective Development of Gifted Students (3)

Special Education Non-Licensure Pathway

EDPS	21100	Special Education Law, Policy, and Ethical Guidelines (3)

Applied Behavior Analysis Non-Licensure Pathway

EDPS	34100	Introduction to Philosophical Underpinnings and Concepts of Applied Behavior Analysis (3)
EDPS	34200	Applied Behavior Analysis – Assessment and Intervention (3)
EDPS	44100	Introduction to Ethics and Practice of Applied Behavior Analysis (3)
EDPS	44200	Advanced Intervention in Applied Behavior Analysis (3)
EDPS	34100	Introduction to Philosophical Underpinnings and Concepts of Applied Behavior Analysis (3)

[1] indicates a Restricted methods course

Total Professional Education 44-49

Licensure Information

All Purdue University Program and Indiana Department of Education requirements must be met for recommendation for Indiana licensure.

After all requirements are met, Purdue graduates will be considered eligible to apply to the Indiana Department of Education for licensure under REPA 3 in:

Chemistry (5-12)
Addition in Blended and Online Teaching (5-12)

Optional: Addition in High Ability (P-12) or ELL (P-12) if chosen pathway requirements are completed

Visit the Indiana Department of Education website for more information about what courses can be taught once licensed in this area.

Please reference the 2022-2023 Science: Chemistry Education Guidelines and Requirements and the 2022-2023 Science: Chemistry Education Checklist for more information.