

Departmental/Program Major Courses

Required Science Education Core Courses (24-30 Credits)

Required Chemistry Selective Courses (4-5 credits):

_____ (4-5) CHM 11500 General Chemistry or CHM 12300 General Chemistry for Engineers I or CHM 12500 Introduction to Chemistry I (*satisfies Science Selective for core and CHED, ESSE, PHED Concentration Requirement*)

OR

_____ (5) CHM 12901 General Chemistry With A Biological Focus (*satisfies BIED Concentration Requirement*)

Required Computing Option (3-4 credits):

_____ (3-4) CS 15800 C Programming or CS 17700 Programming With Multimedia Objects (*satisfies CHED Concentration requirement*)

OR

_____ (3-4) CS 15800 C Programming or CS 17700 Programming With Multimedia Objects or CS 18000 Problem Solving and Object-Oriented Programming (*satisfies BIED, PHED Concentration requirement*)

OR

_____ (3-4) CS 17700 Programming With Multimedia Objects (*satisfies ESSE Concentration requirement*)

Required Calculus Selective Courses (6-10 credits):

_____ (3) MA 16010 Applied Calculus I (*satisfies Quantitative Reasoning for core/satisfies BIED Concentration only*)

_____ (3) MA 16020 Applied Calculus II (*satisfies Quantitative Reasoning for core/satisfies BIED Concentration only*)

OR

_____ (4-5) MA 16100 Plane Analytic Geometry And Calculus I or MA 16500 Analytic Geometry And Calculus I (*satisfies Quantitative Reasoning for core and BIED, CHED, ESSE, PHED Concentration requirement*)

_____ (4-5) MA 16200 Plane Analytic Geometry And Calculus II or MA 16600 Analytic Geometry And Calculus II (*satisfies Quantitative Reasoning for core and (satisfies Quantitative Reasoning for core and BIED, CHED, ESSE, PHED Concentration requirement)*)

Required Physics Selective Courses (8 credits):

_____ (4) PHYS 17200 Modern Mechanics (*satisfies Science Selective for core/BIED,CHED, ESSE, PHED Concentrations*)

_____ (4) PHYS 27200 Electric and Magnetic Interactions or PHYS 24100 Electricity and Optics AND PHYS 25200 Electricity and Optics Laboratory (*satisfies Science Selective for core//BIED,CHED, ESSE, PHED Concentrations*)

_____ (4) PHYS 23300 Physics For Life Sciences I (*satisfies BIED Concentration*)

_____ (4) PHYS 23400 Physics For Life Sciences II (*satisfies BIED Concentration*)

Required Statistics Selective Courses (3 credits):

_____ (3) STAT 30100 Elementary Statistical Methods (*satisfies CHED, ESSE, PHED Concentrations*)

OR

_____ (3) STAT 50300 Statistical Methods For Biology (*satisfies BIED Concentration*)

Educational Program Course Requirements (36 credits) Professional Education GPA Average \geq 3.00 – no grade lower than C-

_____ (3) EDCI 27000 Introduction To Educational Technology And Computing

_____ (3) EDCI 20500 Exploring Teaching As A Career

_____ (3) EDCI 28500 Multiculturalism And Education (*satisfies Behavior/Social Science for University Core*) (*satisfies Language III/Culture/Diversity Option*)

_____ (3) EDPS 23500 Learning And Motivation (*satisfies Behavior/Social Science for University Core*) (*satisfies General Education III Opt*)

_____ (3) EDPS 26500 The Inclusive Classroom (*satisfies Behavior/Social Science for University Core*)

_____ (1) EDST 20010 Educational Policies and Laws

_____ (2) EDPS 32700 Assessment Literacy

_____ (3) EDCI 30900 Reading in Middle and Secondary School

_____ (3) EDCI 42400 Physical Science In The Secondary Schools (*satisfies Multidisciplinary Experience*)-for CHED, ESSE, and PHED Conc OR EDCI 42100 The Teaching of Biology in Secondary School (*satisfies Multidisciplinary Experience*)-for BIED

_____ (2) EDCI 42800 Teaching Science In The Middle And Junior High School

_____ (10) EDCI 49800 Supervised Teaching (*Meets Teambuilding and Collaboration Experience*)

Other Departmental /Program Course Requirements (25-28)

- _____ Within Major Calculus I Option – Select from MA 16100, MA 16500 (*satisfies Quantitative Reasoning for core*)^{CC}
- _____ Within Major Calculus II Option – Select from MA 16200, MA 16600 (*satisfies Quantitative Reasoning for core*)
- _____ (3-4) ENGL 10600 or ENGL 10800 - (*satisfies Written Communication and Information Literacy for core*)
- _____ (3-4) Language I Option* (*Select courses COULD satisfy Human Cultures Humanities for core*)
- _____ (3-4) Language II Option* (*Select courses COULD satisfy Human Cultures Humanities for core*)
- _____ Within Ed Program Language III/Culture/Diversity Option* (*Select courses COULD satisfy Human Cultures Hum for core*)
- _____ (3-6) Technical Writing Option and Technical Presenting Option (*Select courses COULD satisfy Oral Comm for core*)
- _____ Within Major Laboratory Science I Option (*satisfies Science Selective for core*)
- _____ Within Major Laboratory Science II Option (*satisfies Science Selective for core*)
- _____ (3) General Education I Option (*Select courses COULD satisfy Human Culture Behavioral/Social Science or Hum for core*)
- _____ (3) General Education II Option (*Select courses COULD satisfy Human Culture Behavioral/Social Science or Hum for core*)
- _____ Within Ed Program General Education II Option (*Select courses COULD satisfy Human Culture Behavioral/Social Science or Hum for core*)
- _____ Within Major STAT 30100 Elementary Statistical Methods
- _____ Within Major Computing Option
- _____ Within Ed Program Teambuilding and Collaboration Experience*
- _____ (3) Science, Technology & Society for University Core
- _____ (3) Great Issues Option
- _____ Within Ed Program Multidisciplinary Experience* (*Select courses COULD satisfies Science, Technology, and Society Selective for core*)
- _____ (1) CHM 19400 Freshman Chemistry Seminar

*Requirement may be met with a zero credit experiential learning option. See your advisor for more information

Chemistry Concentration (39-40 credits) Overall GPA for Chemistry Concentration courses (courses denoted *: all courses required, but only one course is calculated into GPA) with the Departmental/Program Major Courses must be ≥ 2.5

- _____ Within Dept/Program MA 16500 or 16100 Plane Analytical Geometry Calculus I option (*satisfies Quantitative Reasoning for University Core*)
- _____ Within Dept/Program MA 16600 or 16200 Plane Analytical Geometry Calculus II option (*satisfies Quantitative Reasoning for University Core*)
- _____ (4) MA 26100 Multivariate Calculus or MA 27101 Several Variable Calculus Honors
- _____ Within Dept/Program Physics Option: PHYS 27200 Electricity&Magnetism or (PHYS 24100 Electricity&Optics and PHYS 25200 Electricity&Optics Laboratory) (*satisfies Laboratory Science*)
- _____ Within Dept/Program Chemistry I: CHM 12500 Intro to Chemistry I or CHM 11500 General Chemistry or CHM 12300 General Chemistry For Engineers I
- _____ (4-5) Chemistry II: CHM 12600 Intro to Chemistry II or CHM 11600 General Chemistry or CHM 12901 General Chemistry With A Biological Focus or CHM 13600 General Chemistry Honors
- _____ (3) CHM 26505 Organic Chemistry I or CHM 26100 Organic Chemistry
- _____ (1) CHM 26500 or 26300 Organic Chemistry Lab I or CHM 26700 Organic Chemistry Laboratory Honors
- _____ (3) CHM 26605 Organic Chemistry II or CHM 26200 Organic Chemistry
- _____ (1) CHM 26600 or 26400 Organic Chemistry Lab II or CHM 26800 Organic Chemistry Laboratory Honors
- _____ (1) CHM 29400 Sophomore Chemistry Seminar
- _____ (4) CHM 32100 Analytical Chemistry I or CHM 32300 Analytical Chemistry I Honors*
- _____ (4) CHM 24100 Intro to Inorganic Chemistry
- _____ (3) CHM 34200 Inorganic Chemistry*
- _____ (3) CHM 37300 Physical Chemistry I*
- _____ (2) Physical Chemistry Laboratory
- _____ (1) CHM 37301 Physical Chemistry Lab I
- _____ (1) CHM 37401 Physical Chemistry Lab II
- _____ OR
- _____ (2) CHM 37600 Physical Chemistry Laboratory
- _____ (3) CHM 37400 Physical Chemistry II*
- _____ (3) CHM 33300 Principles Of Biochemistry or CHM 53300 Introductory Biochemistry or BCHM 56100 General Biochemistry I

Electives (0-7 credits)

_____ () _____ () _____ () _____ ()
 _____ () _____ () _____ () _____ ()

University Core Requirements

Human Cultures Humanities	<input type="checkbox"/>	_____	Science, Technology & Society elective	<input type="checkbox"/>	_____
Human Cultures Behavioral/Social Science	<input type="checkbox"/>	_____	Written Communication	<input type="checkbox"/>	_____
Information Literacy	<input type="checkbox"/>	_____	Oral Communication	<input type="checkbox"/>	_____
Science Selective	<input type="checkbox"/>	_____	Quantitative Reasoning	<input type="checkbox"/>	_____
Science Selective	<input type="checkbox"/>	_____			

Note: This degree is intended to give students many options. Students need to consult with a College of Science Academic Advisor regarding requirements.

The student is ultimately responsible for knowing and completing all degree requirements.

(Degree Works) MyPurduePlan is knowledge source for specific requirements and completion

Science Education – Chemistry Concentration

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
5	Chemistry I (CHM 12500* [^] recommended)	Calc I co-req	5	Chemistry II (CHM 12600 [^] recommended)	CHM 12500
5	* [^] Calc I Option	ALEKS 85	5	[^] Calc II Option	MA 16100
4	ENGL 10600* or ENGL 10800		3	Technical Writing/Technical Presentation (COM 21700* recommended)	
1	CHM 19400		4	PHYS 17200 [^] recommended	ALEKS 85
3	EDCI 27000				
18			17		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	CHM 26505 [^] or 26100	CHM 12600	3	CHM 26605 [^] or 26200	CHM 26505
1	CHM 26300 [^]	CHM 12600	1	CHM 26400 [^] or 26600 or 26800	CHM 26300
4	[^] Calc III Option	MA 16200	4	CHM 24100 [^]	CHM 12600
3	EDCI 20500		4	Physics Option (PHYS 27200 [^] recommended)	PHYS 17200
3	EDCI 28500* (Language III/Culture/Diversity Option)		1	EDST 20010	
1	CHM 29400 [^]		3	Language I Option*	
15			16		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	CHM 37300 [^]	PHYS 27200	3	CHM 34200 [^]	CHM 12600
1	CHM 37301 [^]		3	CHM 37400 [^]	CHM 37300
3	EDPS 23500* (General Education I Option)		1	CHM 37401 [^]	CHM 37301
3	EDPS 26500		3	General Education II Option	
3	STAT 30100*		3	Language II Option	Language I Option
3	General Education I Option		3	Science, Technology, & Society*	
			2	EDPS 32700	
16			18		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
4	CHM 32100 [^] or 32300	CHM 12600	2	EDCI 42800 Spring only	EDCI 20500,28500 AND EDPS 23500, 26500 (C- or better) AND EDCI 42400
3	CHM 33300 [^] or 53300 or BCHM 56100	CHM 26505	3	EDCI 30900	
3	EDCI 42400 (Multidisciplinary Experience)	EDCI 20500,28500 AND EDPS 23500, 26500 (C- or better)	10	EDCI 49800 (Teambuilding and Collaboration Experience)	EDCI 20500,28500 AND EDPS 23500, 26500 (C- or better)
3-4	Computing Option				
3	Great Issues Option				
16-17			15		

*Satisfies a University Core Requirement

131 semester credits (minimum) required for Bachelor of Science degree.**2.0 average in CHM courses required to graduate.****2.5 average in CHM concentration [^] courses required to graduate****3.0 average in Professional Education courses required to graduate (No grade below a C-)**

The student is ultimately responsible for knowing and completing all degree requirements.**Degree Works is knowledge source for specific requirements and completion**
