Chemistry / Secondary Education

Bachelor of Arts (BS.CHEM(SEC))

Core Require	ements		Credits	Notes/Instructions
College Sem.	Quest for Meaning	CSEM 100	3	†A student may be required to take ENGL
Communication & Creative Expression	Writing Oral Communication Literature The Arts	ENGL 110† COMM 101 ENGL 140-149 ARTS 100-149	3 3 3 3	105 and/or MATH 100 based on placement exams administered prior to their first semester at King's College. ENGL 105 and
Citizenship	History Intercultural Global Connections	HIST 100-149 FREN/GERM/SPAN 100-level or Study Abroad ^{††} ECON 150-199; GEOG 150-199; HIST 150-199; PS 150-199; SOC 150-199	3 3 3	MATH 100 are 3-credit courses and will count as free electives. ††The Intercultural Competence
Quantitative & Scientific Reasoning	SBM Quantitative Reasoning SBM Scientific Endeavor SBM Science in Context Human Beh. & Soc. Inst	MATH 120 [†] or higher level NSCI 100 NSCI 171-199 ECON 111, 112; GEOG 101, 102; PS 101, PSYC 101, SOC 101	- - - 3	requirement can be satisfied by taking a 100 level language class for credits or participating i an approved Study Abroad experience. (See
Wisdom, Faith, & the Good Life	Introduction to Phil. Phil. Investigations Theology & Wisdom Theology & the Good Life	PHIL 101 PHIL 170-199 THEO 150-159 THEO 160-169	3 3 3 3	college catalog for more information) SBM = Satisfied By Major requirement and credits listed below.
		Total Core Credits	39	

Major Requirements	Credits	Major Requirements	Credits	Secondary Education Requirements	Credits
CHEM 113 ²	3	MATH 129 ²	4	EDUC 202	3
CHEM 113L	1	MATH 130 ^{PR}	4	EDUC 231	1
CHEM 114 ^{2,PR}	3	MATH 237 ^{PR}	3	EDUC 232	1
CHEM 114LPR	1	MATH 238 ^{PR}	3	EDUC 235 ³	3
CHEM 241 ^{PR}	3	PHYS 113 ^{CR}	3	EDUC 240 ³	3
CHEM 241LPR	1	PHYS 113L	1	EDUC 270 ³	3
CHEM 242 ^{PR}	3	PHYS 114 ^{PR}	3	EDUC 302 ^{3, 4}	3
CHEM 242LPR	1	PHYS 114LPR	1	EDUC 305 ^{3, 4}	3
CHEM 243 ^{PR}	3			EDUC 350 ^{3,4}	3
CHEM 243LPR	2			EDUC 366 ^{3, 4}	3
CHEM 244 ^{PR}	3			EDUC 440 ⁴	3
CHEM 244L ^{PR}	2			EDUC 467 ^{3, 4}	10
CHEM 351 ^{PR}	1			EDUC 468 ^{3, 4}	2
CHEM 357PR	3				
CHEM 357LPR	2				
CHEM 358 ^{PR}	3				
CHEM 358L ^{PR,*}	2				
CHEM 471 ^{PR}	3				
CHEM 493 ^{PR}	1				
CHEM 494 ^{PR}	1				
		Other Requirements			
	_	HCE 101 Holy Cross Exp.	1		
		Total Major and		Total Secondary	
Total Major Credits	42	Other Credits	23	Education Credits	41

Total Credits Required for Graduation = 145

NOTE: All Secondary Teacher Certification candidates must complete six credits of college level mathematics and six credits of college level English:

Math Courses	MATH 129	MATH 130	
English Courses	ENGL 110	ENGL 140 - 149	

The Pennsylvania Department of Education requires secondary teachers to have a degree in the content area for certification. Students seeking secondary certification must meet with his/her specific content area department for content area courses required for the degree. The Education Division is not responsible for content area or Core courses for secondary certification candidates.

^{*} CHEM 358L may be replaced by a semester of research (CHEM 396, CHEM 397, CHEM 496, CHEM 497)

Chemistry / Secondary Education

Suggested Sequence

A suggested course sequence of degree requirements is listed below. Refer to the college catalog for course titles, descriptions, and prerequisites. Always consult your Academic Advisor when planning and scheduling your classes.

CHEM 1132 General Chemistry I CHEM 113L General Chemistry II CHEM 114L TM General Chemistry II Lab MATH 129 ² Analytic Geometry & Calculus I MATH 129 ² Analytic Geometry & Calculus I PHYS 113 ²⁰⁰⁰ Physics for Scientists & Engineers I PHYS 113L Physics for Scientists & Engineers I PHYS 114T Physics for Scientists & Engineers I PHYS 114T Physics for Scientists & Engineers I PHYS 114T Physics for Scientists & Engineers I Core Course ¹ BEDUC 202 Educ. Philos., Ethics, Issues & Tre 16 Summer ** Credits Fall Credits Spring CHEM 241 TM Organic Chemistry I CHEM 241 TM Organic Chemistry II CHEM 241 TM Organic Chemistry II Lab MATH 239 TM Differential Equations 3 CHEM 242 TM Organic Chemistry II Lab MATH 239 TM Differential Equations 3 CORE Course ¹ Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Departmer sooner than the completion of 48 credits and no later than 65 credits. Summer ** Credits Fall Credits Spring CHEM 243 TM Analytical Chemistry Lab 2 CHEM 244 TM Instrumental Analysis Lab CHEM 243 TM Analytical Chemistry Lab 2 CHEM 244 TM Instrumental Analysis CHEM 243 TM Analytical Chemistry Lab CHEM 357 TM Physical Chemistry I Lab CHEM 357 TM Physical Chemistry I Lab CHEM 357 TM Physical Chemistry I Lab CHEM 358 TM Physi		Cre
MATH 129° Analytic Geometry & Calculus I PHYS 1131° Physics for Scientists & Engineers I PHYS 1131° Physics for Scientists & Engineers I PHYS 1131° Physics for Sci. & Eng. I Lab I PHYS 1131° Physics for Sci. & Eng. I Lab I PHYS 1141° Physics for Sci. & Eng. II Lab Core Course¹ I Core Course¹ Fall CHEM 241° Organic Chemistry I CHEM 241° Organic Chemistry II CORE Course¹ I CHEM 242° Analytical Chemistry I CHEM 243° Analytical Chemistry I CHEM 243° Analytical Chemistry I CHEM 245° Physical Chemistry I CHEM 245° Physical Chemistry I CHEM 245° Physical Chemistry I CHEM 357° Core Course¹ CORE Course¹ CORE Course¹ CO		
PHYS 113 ^{2.08} Physics for Scientists & Engineers I PHYS 113 Physics for Sci. & Eng. I Lab 1 PHYS 1141 Physics for Sci. & Eng. II Lab 1 PHYS 1141 Physics for Sci. & Eng. II Lab 1 PHYS 1141 Physics for Sci. & Eng. II Lab 1 PHYS 1141 Physics for Sci. & Eng. II Lab 1 PHYS 1141 Physics for Sci. & Eng. II Lab 1 Core Course¹ 16 Summer ** Credits Fall Credits Summer ** Credits Fall CHEM 241 ²⁸ Organic Chemistry I 1 3 CHEM 242 ²⁸ Organic Chemistry II 1 Hem 241 ²⁸ Organic Chemistry I Lab 1 CHEM 241 ²⁸ Organic Chemistry II Lab MATH 233 ²⁸ Differential Equations 3 MATH 233 ²⁸ Math. Methods for the Phys. S EDUC 235° Sec. Development, Cognition, & Learn 3 EDUC 240° Sec. Multicult, Linguistic & Inst. Core Course¹ 3 Core Course¹ 16 Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Department Sooner than the completion of 48 credits and no later than 65 credits. Fall Credits Fall Credits Fall Credits Spring CHEM 243 ²⁸ Analytical Chemistry 3 CHEM 243 ²⁸ Analytical Chemistry 3 CHEM 243 ²⁸ Analytical Chemistry Lab 2 CHEM 243 ²⁸ Physical Chemistry I Lab CHEM 357 ²⁸ Physical Chemistry I Lab Credits Fall Credits		
PHYS 113L Physics for Sci. & Eng. I Lab Core Course¹ 3		
Core Course¹ 3 EDUC 202 Educ. Philos., Ethics, Issues & Tre HEE 101 Holy Cross Experience 1 Core Course¹ Summer ** Credits Fall Credits Fall Credits Fall CHEM 241*** Organic Chemistry I S CHEM 242*** Organic Chemistry II Lab 1 CHEM 241*** Organic Chemistry I Lab 1 CHEM 241*** Organic Chemistry II Lab MATH 238** Differential Equations 3 MATH 237** Math. Methods for the Phys. S EDUC 235* Sec. Development, Cognition, & Learn 3 EDUC 240* Sec. Multicult, Linguistic & Inst. Core Course¹ 3 Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Departmer sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 243** Analytical Chemistry Lab 2 CHEM 244** Instrumental Analysis Lab CHEM 243** Analytical Chemistry Lab 2 CHEM 244** Instrumental Analysis Lab CHEM 245** Physical Chemistry I B CHEM 357** Physical Chemistry I B CHEM 351** Technological Competency 1 EDUC 305*Assessment I EDUC 305*Assessment I EDUC 270*Introduction to Special Education 3 Core Course¹ Summer ** Credits Fall Credits	II	
HCE 101 Holy Cross Experience 1 Credits Summer ** Credits Fall CHEM 241 ²⁸ Organic Chemistry 3 CHEM 242 ²⁸ Organic Chemistry 1 CHEM 241 ²⁸ Organic Chemistry 1 CHEM 242 ²⁸ Organic Chemistry 1 CHEM 243 ²⁸ Organic Chemistry 1 CHEM 243 ²⁸ Organic Chemistry 3 Core Course 1 CHEM 243 ²⁸ Analytical Chemistry 3 CHEM 243 ²⁸ Analytical Chemistry 3 CHEM 243 ²⁸ Analytical Chemistry 3 CHEM 243 ²⁸ Analytical Chemistry 1 CHEM 357 ²⁸ Physical Chemistry 1 CHEM 357 ²⁸ Technological Competency 1 CORE COURSE 1 CORC CO		
HCE 101 Holy Cross Experience 1 Credits Summer ** Credits Fall Credits Spring CHEM 241*** Organic Chemistry 3 CHEM 242*** Organic Chemistry 1 CHEM 241.*** Organic Chemistry 1 CHEM 242.*** Organic Chemistry 1 CHEM 243.** Math. Methods for the Phys. S EDUC 235* Sec. Development, Cognition, & Learn 3 EDUC 240* Sec. Multicult., Linguistic & Inst. Core Course¹ Core Course¹ 16 Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Departmer	ds	
Summer ** Credits Fall Credits Spring CHEM 241 ^{TR} Organic Chemistry I 3 CHEM 242 ^{TR} Organic Chemistry II Lab 1 CHEM 241 ^{TR} Organic Chemistry II Lab 1 CHEM 2421 ^{TR} Organic Chemistry II Lab MATH 235 ^{TR} Differential Equations 3 MATH 237 ^{TR} Math. Methods for the Phys. S EDUC 235 ³ Sec. Development, Cognition, & Learn 3 EDUC 240 ³ Sec. Multicult., Linguistic & Inst. Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ Core Course ¹ 3 Core Course ¹ Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Departmer sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 243 ^{TR} Analytical Chemistry 3 CHEM 244 ^{TR} Instrumental Analysis Lab CHEM 257 ^{TR} Physical Chemistry I Lab 2 CHEM 244 ^{TR} Instrumental Analysis Lab CHEM 357 ^{TR} Physical Chemistry I Lab 2 CHEM 358 ^{TR} Physical Chemistry I Lab CHEM 357 ^{TR} Physical Chemistry I Lab 2 CHEM 358 ^{TR} Physical Chemistry I Lab 2 CHEM 358 ^{TR} Physical Chemistry I Lab CHEM 357 ^{TR} Physical Competency 1 EDUC 305 ^{TR} Sexessment I EDUC 305 ^{TR} Sexessment I EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ 3 The Credits Spring CHEM 493 ^{TR} Senior Colloquium II CHEM 473 ^{TR} Advanced Inorganic Chemistry 3 CHEM 493 ^{TR} Senior Colloquium II EDUC 302 ^{TR} Secondary Science Methods 3 EDUC 366 ^{TR} Methods For Teaching Diverse Lea Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ 4 EDUC 305 ^{TR} Secondary Science Methods 3 EDUC 366 ^{TR} Methods For Teaching Diverse Lea Core Course ¹ 3 Core Course ¹ 5 Core Course ¹ 5 Core Course ¹ 5 Core Course ¹ 5 Core Course ¹ 6 COre Course ¹ 6 COre Course ¹ 7 Core Course		
Fall Credits Spring CHEM 241*** Organic Chemistry I 3 CHEM 242*** Organic Chemistry II ab 1 CHEM 241*** Organic Chemistry II Lab 1 CHEM 241L*** Organic Chemistry II Lab 1 CHEM 241L*** Organic Chemistry II Lab 1 CHEM 241L*** Organic Chemistry II Lab MATH 237** Math. Methods for the Phys. S EDUC 235* Sec. Development, Cognition, & Learn 3 EDUC 240* Sec. Multicult., Linguistic & Inst. Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ Tore Course¹ 3 Core Course¹ Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Department sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 244** Instrumental Analysis Lab CHEM 244** Instrumental Analysis Lab CHEM 243** Analytical Chemistry Lab 2 CHEM 244** Instrumental Analysis Lab CHEM 357** Physical Chemistry II Lab 2 CHEM 357** Physical Chemistry II Lab 2 CHEM 357** Physical Chemistry II Lab 2 CHEM 351** Physical Chemistry II Lab 2 CHEM 351** Physical Chemistry II Lab 2 CHEM 351** Physical Chemistry II Lab CORCOURSe¹ EDUC 270³ Introduction to Special Education 3 Core Course¹ 17 Summer ** Credits Fall Credits Fall Credits Fall Credits Fall Credits Fall Credits Fall Credits Spring CHEM 471** Advanced Inorganic Chemistry 3 CHEM 494** Senior Colloquium II EDUC 305*4 Secondary Classroom Manager EDUC 302*4 Secondary Science Methods 3 EDUC 366*4 Methods For Teaching Diverse Lear Core Course¹ 3 Core Course¹ 3 Core Course¹ 3 Core Course¹ 4 EDUC 231 and EDUC 232 Technology Module I & II 2 Coredits Fall Credits		:
CHEM 241** Organic Chemistry I CHEM 241** Organic Chemistry I Lab 1 CHEM 2421** Organic Chemistry I Lab 1 CHEM 2421** Organic Chemistry I Lab MATH 238** Differential Equations 3 MATH 237** Math. Methods for the Phys. S EDUC 235* Sec. Development, Cognition, & Learn 3 EDUC 240* Sec. Multicult., Linguistic & Inst. Core Course¹ 3 Core Course¹ 16 Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Departmer sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 243** Analytical Chemistry 3 CHEM 243** Analytical Chemistry B CHEM 245** Analytical Chemistry B CHEM 245** Physical Chemistry B CHEM 245** Physical Chemistry B CHEM 357** Physical Chemistry B CHEM 357** Physical Chemistry B CHEM 357** Physical Chemistry B CHEM 358** Physi		
CHEM 241L ^{PR} Organic Chemistry I Lab MATH 238 ^{PR} Differential Equations 3		Cre
MATH 238 Pit Differential Equations 3 MATH 237 Pix Math. Methods for the Phys. S EDUC 235 Sec. Development, Cognition, & Learn 3 EDUC 240 Sec. Multicult., Linguistic & Inst. Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ 3 Core Course¹ 3 Core Course¹ 4 Core Course¹ 3 Core Course¹ 5 Core Course¹ 6 Core Course¹ 6 Core Course¹ 6 Core Course¹ 6 Core Course¹ 7 Core Course¹ 8 Core Course¹ 8 Core Course¹ 8 Core Course¹ 9 C		
EDUC 235³ Sec. Development, Cognition, & Learn 3 Core Course¹ 5 Core Course¹ 6 Core Course¹ 6 Core Course¹ 6 Core Course¹ 7 Core Course¹ 8 Core Course¹ 9 Co		
Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ 16 Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Departmer sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Fall Credits Fall Credits Spring CHEM 2431ºR Analytical Chemistry 3 CHEM 2441ºR Instrumental Analysis Lab CHEM 357ºR Physical Chemistry I 3 CHEM 358ºR Physical Chemistry II CHEM 357ºR Physical Chemistry I 3 CHEM 358ºR Physical Chemistry II Lab CHEM 357ºR Physical Chemistry I 4 EDUC 305ºAssessment I EDUC 270º Introduction to Special Education 3 Core Course¹ Summer ** Credits Fall Credits Fall Credits Spring CHEM 471ºR Advanced Inorganic Chemistry 3 CHEM 494ºR Senior Colloquium II EDUC 305ºA Secondary Classroom Manager EDUC 302³A Secondary Science Methods 3 EDUC 363·A Methods For Teaching Diverse Leai Core Course¹ 3 Core Course¹ 5 Core Course²		
Core Course¹ 16 Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Department sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 243 ^{PR} Analytical Chemistry 3 CHEM 244 ^{PR} Instrumental Analysis Lab CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 358 ^{PR} Physical Chemistry I 3 CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 358 ^{PR} Physical Chemistry I I 3 CHEM 357 ^{PR} Physical Chemistry I B CHEM 357 ^{PR} Physical Chemistry I Lab CHEM 357 ^{PR} Physical Chemistry I Lab CHEM 351 ^{PR} Technological Competency 1 EDUC 270³ Introduction to Special Education 3 Core Course¹ EDUC 270³ Introduction to Special Education 3 Core Course¹ 17 Summer ** Credits Fall Credits Spring CHEM 494 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I EDUC 305³-4 Secondary Classroom Manager EDUC 302³-4 Secondary Science Methods 3 EDUC 366³-4 Methods For Teaching Diverse Lea Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits Fall Credits	leth.	
Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Department Sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 243 ^{PR} Analytical Chemistry 3 CHEM 244 ^{PR} Instrumental Analysis CHEM 243L ^{PR} Analytical Chemistry Lab 2 CHEM 358 ^{PR} Physical Chemistry II CHEM 357 ^{PR} Physical Chemistry II CHEM 357 ^{PR} Physical Chemistry II CHEM 351 ^{PR} Physical Chemistry II CHEM 351 ^{PR} Physical Chemistry II CHEM 351 ^{PR} Technological Competency 1 EDUC 305 ³ Assessment I EDUC 305 ³ Assessment I EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ 3 Tr Summer ** Credits Fall Credits Spring CHEM 494 ^{PR} Senior Colloquium II CHEM 493 ^{PR} Senior Colloquium II CHEM 493 ^{PR} Senior Colloquium II EDUC 305 ³ A Secondary Classroom Manager EDUC 302 ³ A Secondary Science Methods 3 EDUC 366 ³ A Methods For Teaching Diverse Leal Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits		
Admission to Candidacy (Complete and return "Application for Teacher Education Program Candidacy" to the Education Department sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall Credits Spring CHEM 243 ^{PR} Analytical Chemistry 3 CHEM 244 ^{PR} Instrumental Analysis CHEM 243 ^{PR} Analytical Chemistry Lab 2 CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 357 ^{PR} Physical Chemistry II 3 CHEM 357 ^{PR} Physical Chemistry II CHEM 357 ^{PR} Technological Competency 1 EDUC 305 ³ Assessment I EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ 3 Credits Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 494 ^{PR} Senior Colloquium I EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 365 ^{3,4} Methods For Teaching Diverse Lear Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ 5 EDUC 231 and EDUC 232 Technology Module I & II 2 Credits Fall Credits		
sooner than the completion of 48 credits and no later than 65 credits.) Summer ** Credits Fall CHEM 243 ^{PR} Analytical Chemistry 3 CHEM 243L ^{PR} Analytical Chemistry Lab CHEM 243L ^{PR} Analytical Chemistry Lab CHEM 357 ^{PR} Physical Chemistry I CHEM 357 ^{PR} Physical Chemistry I CHEM 357 ^{PR} Physical Chemistry I Lab CHEM 357 ^{PR} Physical Chemistry I Lab CHEM 357 ^{PR} Physical Chemistry II CHEM 351 ^{PR} Technological Competency 1 EDUC 305 ³ Assessment I EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ Summer ** Credits Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 366 ^{3,4} Methods For Teaching Diverse Lead Core Course ¹ Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II Credits		:
Fall Credits Spring CHEM 243 ^{PR} Analytical Chemistry 3 CHEM 244 ^{PR} Instrumental Analysis CHEM 243L ^{PR} Analytical Chemistry Lab 2 CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 357 ^{PR} Physical Chemistry I Lab 2 CHEM 358L ^{PR} Physical Chemistry II Lab CHEM 357 ^{PR} Technological Competency 1 EDUC 305 ³ Assessment I EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ Summer ** Credits Fall Credits Fall Credits Spring CHEM 494P ^{PR} Senior Colloquium I CHEM 493P ^R Senior Colloquium I EDUC 302 ³ A Secondary Science Methods 3 EDUC 305 ³ A Secondary Classroom Manager EDUC 302 ³ A Secondary Science Methods 3 EDUC 366 ³ A Methods For Teaching Diverse Leal Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Core Course ¹ T5 Fall Credits	no	
Fall Credits Spring CHEM 243 ^{PR} Analytical Chemistry 3 CHEM 244 ^{PR} Instrumental Analysis CHEM 243L ^{PR} Analytical Chemistry Lab 2 CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 357 ^{PR} Physical Chemistry I 2 CHEM 357 ^{PR} Physical Chemistry I Lab 2 CHEM 351 ^{PR} Technological Competency 1 EDUC 305 ³ Assessment I EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ Summer ** Credits Fall Credits Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 494 ^{PR} Senior Colloquium II EDUC 303 ^{3,4} Secondary Science Methods 3 EDUC 303 ^{3,4} Secondary Classroom Manager EDUC 303 ^{3,4} Secondary Science Methods 3 Core Course ¹ Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits Fall Credits Fall Credits Core Course ¹ Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits		
CHEM 243 ^{PR} Analytical Chemistry CHEM 243L ^{PR} Analytical Chemistry Lab CHEM 243L ^{PR} Analytical Chemistry Lab CHEM 357 ^{PR} Physical Chemistry I CHEM 357 ^{PR} Physical Chemistry I CHEM 357L ^{PR} Physical Chemistry I Lab CHEM 357L ^{PR} Physical Chemistry II CHEM 357L ^{PR} Physical Chemistry II CHEM 357L ^{PR} Physical Chemistry II CHEM 351PR Technological Competency 1 EDUC 370 ³ Introduction to Special Education 3 Core Course ¹ 3 Core Course ¹ Summer ** Credits Fall Credits Spring CHEM 494PR Senior Colloquium II CHEM 493PR Senior Colloquium I CHEM 493PR Senior Colloquium I EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 302 ^{3,4} Secondary Science Methods 3 Core Course ¹ Core Course ¹ 3 Core Course ¹ Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II Credits		
CHEM 243L ^{PR} Analytical Chemistry Lab CHEM 357 ^{PR} Physical Chemistry I CHEM 357 ^{PR} Physical Chemistry I CHEM 357L ^{PR} Physical Chemistry I Lab CHEM 351 ^{PR} Technological Competency EDUC 270 ³ Introduction to Special Education Core Course ¹ 3 Credits Fall CHEM 491 ^{PR} Advanced Inorganic Chemistry 3 CHEM 494 ^{PR} Senior Colloquium I EDUC 302 ^{3,4} Secondary Science Methods Core Course ¹ 3 Core Course ¹ Core Course ¹ Core Course ¹ Core Course ¹ CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Secondary Science Methods Core Course ¹		Cre
CHEM 357 ^{PR} Physical Chemistry I 3 CHEM 358 ^{PR} Physical Chemistry II CHEM 357L ^{PR} Physical Chemistry I Lab 2 CHEM 358L ^{PR} Physical Chemistry II Lab CHEM 351 ^{PR} Technological Competency 1 EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ 3 Tore Core Course ¹ 3 Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 494 ^{PR} Senior Colloquium II CHEM 493 ^{PR} Senior Colloquium I 1 EDUC 305 ^{3,4} Secondary Classroom Manager EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 366 ^{3,4} Methods For Teaching Diverse Leai Core Course ¹ 3 Core Course ¹ Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits Fall Credits		
CHEM 357L ^{PR} Physical Chemistry I Lab CHEM 351PR Technological Competency EDUC 270³ Introduction to Special Education Core Course¹ 3 Core Course¹ Summer ** Credits Fall CHEM 471PR Advanced Inorganic Chemistry CHEM 493PR Senior Colloquium I CHEM 493PR Senior Colloquium I EDUC 305³Assessment I Core Course¹ Spring CHEM 471PR Advanced Inorganic Chemistry CHEM 493PR Senior Colloquium I EDUC 350³A Secondary Classroom Manager EDUC 302³A Secondary Science Methods Core Course¹ Core Course¹ Core Course¹ Core Course¹ Core Course¹ Spring CHEM 494PR Senior Colloquium II EDUC 350³A Secondary Classroom Manager EDUC 366³A Methods For Teaching Diverse Leai Core Course¹ Core Course¹ Core Course¹ Core Course¹ Core Course¹ Core Course¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits		
CHEM 351 ^{PR} Technological Competency 1 EDUC 270 ³ Introduction to Special Education 3 Core Course ¹ 3 TT Summer ** Credits Fall CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I 1 EDUC 350 ^{3,4} Secondary Classroom Manager EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 366 ^{3,4} Methods For Teaching Diverse Lead Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ 5 EDUC 231 and EDUC 232 Technology Module I & II TS Fall Credits		
EDUC 270³ Introduction to Special Education 3 Core Course¹ 3 17 Summer ** Credits Fall Credits Spring CHEM 471°R Advanced Inorganic Chemistry 3 CHEM 493°R Senior Colloquium I 1 EDUC 350³.⁴ Secondary Classroom Manager EDUC 302³.⁴ Secondary Science Methods 3 EDUC 366³.⁴ Methods For Teaching Diverse Lear Core Course¹ 3 Core Course¹ Core Course¹ 3 Core Course¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Core Course¹ Fall Credits		
Core Course ¹ Summer ** Credits Fall CHEM 471 ^{PR} Advanced Inorganic Chemistry CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I DUC 302 ^{3,4} Secondary Science Methods Core Course ¹ Core Course ¹ Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II Fall Credits		
Table Credits Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 494 ^{PR} Senior Colloquium II CHEM 493 ^{PR} Senior Colloquium I 1 EDUC 350 ^{3,4} Secondary Classroom Manager EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 366 ^{3,4} Methods For Teaching Diverse Lead Core Course ¹ 3 Core Course ¹ Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Core Course ¹ Fall Credits		
Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I EDUC 302 ^{3,4} Secondary Science Methods Core Course ¹ Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 15 Fall Credits		
Fall Credits Spring CHEM 471 ^{PR} Advanced Inorganic Chemistry 3 CHEM 494 ^{PR} Senior Colloquium II CHEM 493 ^{PR} Senior Colloquium I EDUC 350 ^{3,4} Secondary Classroom Manager EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 366 ^{3,4} Methods For Teaching Diverse Lead Core Course ¹ 3 Core Course ¹ Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Table Table Table Table Credits		
CHEM 471 ^{PR} Advanced Inorganic Chemistry CHEM 493 ^{PR} Senior Colloquium I CHEM 493 ^{PR} Senior Colloquium I EDUC 302 ^{3,4} Secondary Classroom Manager EDUC 302 ^{3,4} Secondary Science Methods 3 Core Course ¹ Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Credits CHEM 494 ^{PR} Senior Colloquium II EDUC 350 ^{3,4} Secondary Classroom Manager EDUC 366 ^{3,4} Methods For Teaching Diverse Lead Core Course ¹ Core Course ¹ Core Course ¹ Tore Course ¹ Core Course ¹ Core Course ¹ Core Course ¹		
CHEM 493 ^{PR} Senior Colloquium I 1 EDUC 350 ^{3,4} Secondary Classroom Manager EDUC 302 ^{3,4} Secondary Science Methods 3 EDUC 366 ^{3,4} Methods For Teaching Diverse Lead Core Course ¹ 3 Core Course ¹ 3 Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Core Course ¹ Fall Credits		Cr
EDUC 302 ^{3,4} Secondary Science Methods Core Course ¹ Core Course ¹ EDUC 231 and EDUC 232 Technology Module & II 2 Core Course ¹ Fall Credits		
Core Course ¹ Core Course ¹ Solution Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 15 Fall Credits Core Course ¹ Core Course ¹ Core Course ¹ Core Course ¹		
Core Course ¹ EDUC 231 and EDUC 232 Technology Module I & II 2 Core Course ¹ Core Course ¹ Fall Credits	ers	
EDUC 231 and EDUC 232 Technology Module I & II 2 Core Course ¹ 15 Fall Credits		
Fall Credits		
		:
EDUC 467-3-4 Observation & Student Leach. (Sec.)		
EDUC 468 ^{3, 4} Student Teaching Seminar 2		
EDUC 440 ⁴ Inclusive Education 3		
Take Praxis II		

^{**} Students are encouraged to take some Core courses during the summer months to help "lighten" their course load during a semester.

¹Choose one course from each of the Core Requirements listed on the reverse side.

² Course may satisfy both a Major and a Core requirement. MATH 129 satisfies the Quantitative Reasoning Core requirement; CHEM 113 and PHYS 113 satisfies the Scientific Endeavor and Science in Context Core requirements.

³ Updated Child Abuse & Criminal Record & FBI Clearances <u>REQUIRED</u> for EDUC 235, EDUC 240, EDUC 270, EDUC 302, EDUC 305, EDUC 350, EDUC 366, EDUC 440, EDUC 467, and EDUC 468. RCourse has a prerequisite – check college catalog.