

# General Science / Secondary Education

## Bachelor of Science (BS.GENSC(SEC))

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

Major Requirements	Credits	Major Requirements	Credits	Secondary Education Requirements	Credits
<b>Take two of the following with labs:</b>		Track Course*	3 - 4	EDUC 202	3
BIOL 113 <sup>2</sup>	8 credits	Track Course*	3 - 4	EDUC 231	1
BIOL 113L		Track Course*	3 - 4	EDUC 232	1
BIOL 210 <sup>PR</sup>		Track Course*	3 - 4	EDUC 235 <sup>3</sup>	3
BIOL 210L		Track Course*	3 - 4	EDUC 240 <sup>3</sup>	3
BIOL 213 <sup>PR</sup>		Track Course*	3 - 4	EDUC 270 <sup>3</sup>	3
BIOL 213L		Track Course**	3 - 4	EDUC 302 <sup>3,4</sup>	3
CHEM 113 <sup>2</sup>	3	Track Course**	3 - 4	EDUC 305 <sup>3,4</sup>	3
CHEM 113L	1	(Track Course**)	(3 - 4)	EDUC 350 <sup>3,4</sup>	3
CHEM 114 <sup>PR</sup>	3			EDUC 366 <sup>3,4</sup>	3
CHEM 114L	1			EDUC 440 <sup>4</sup>	3
PHYS 111 or 113	3			EDUC 467 <sup>3,4</sup>	10
PHYS 111L or 113L	1			EDUC 468 <sup>3,4</sup>	2
PHYS 112 <sup>PR</sup> or 114 <sup>PR</sup>	3				
PHYS 112L <sup>PR</sup> or 114L <sup>PR</sup>	1				
MATH 125 & 128					
<b>OR</b>	8			<b>Other Requirements</b>	
MATH 129 & 130				HCE 101 Holy Cross Exp.	1
<b>Total Minimum Major Credits</b>			<b>60**</b>	<b>Total Sec Ed / Other Credits</b>	<b>45</b>

**Minimum Credits Required for Graduation = 144**

**\*A student majoring in General Science must choose one of the following Tracks (minor concentrations) below:**

**\*\*Elective courses in Science and/or Math to accumulate a minimum of 60 credits in Science and Math.**

**NOTE:** Some courses required for certain minor programs will have prerequisites that must be fulfilled.

Biology	Chemistry	Mathematics	Neuroscience	Environmental Science	Physics
BIOL 370	CHEM 241	MATH 126	PSYC 101	ENST 201	PHYS 231
BIOL 490	CHEM 242	MATH 129	NEUR 211	ENST 202	PHYS Elective*
3 <sup>rd</sup> Foundational BIOL (113, 210, 213 + Lab)	CHEM 243	MATH 130	NEUR 212	<b>One of the following:</b>	PHYS Elective*
BIOL Elective*	CHEM 493	MATH 237	NEUR 310	ENST 490	PHYS Elective*
BIOL Elective*	CHEM 494	MATH Capstone	NEUR 480	ENST 491	MATH 129
BIOL Elective*	CHEM Elective*	<b>Plus one (1) of the following:</b>	<b>Plus two (2) of the following:</b>	ENST 499	MATH 130
<b>*Minimum of Four (4) BIOL electives approved by the departmental advisor.</b>	<b>*One chemistry elective, excluding CHEM 351.</b>	MATH 231	NEUR 342	<b>Plus three (3) of the following:</b>	<b>Plus one (1) of the following:</b>
		MATH 238	NEUR 346	ENST 200	MATH 231
			NEUR 348	ENST 355	MATH 237
			NEUR 349	ENST 401 (A-L)	<b>*Three PHYS elective courses numbered 300 or higher with lab if offered</b>
			NEUR 390	ENST 410	

# General Science / 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.

Fall	Credits	Spring	Credits
♦ BIOL 113 <sup>2</sup> or BIOL 213	3	♦ BIOL 210 <sup>PR</sup> Organisms & Their Ecosystems	3
♦ BIOL 113L or BIOL 213L	1	♦ BIOL 210L <sup>PR</sup> Organisms & Their Ecosystems Lab	1
CHEM 113 <sup>2</sup> General Chemistry I	3	CHEM 114 <sup>PR</sup> General Chemistry II	3
CHEM 113L General Chemistry I Lab	1	CHEM 114L <sup>PR</sup> General Chemistry II Lab	1
MATH 128 <sup>2</sup> Statistics or 129 <sup>2</sup> Calculus I	4	MATH 125 <sup>2</sup> Calculus I or MATH 130 Calculus II	4
Core Course <sup>1</sup>	3	EDUC 202	3
HCE 101 Holy Cross Experience	1		
	<b>16</b>		<b>15</b>
Fall	Credits	Spring	Credits
Track Course*	3 - 4	Track Course*	3 - 4
Track Course*	3 - 4	Track Course*	3 - 4
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
Core Course <sup>1</sup>	3	EDUC 240 <sup>3</sup> Sec. Multicult., Linguistic & Inst. Meth.	3
EDUC 235 <sup>3</sup> Sec. Development, Cognition, & Learn	3	Core Course <sup>1</sup>	3
	<b>15-17</b>		<b>15-17</b>
<b>Admission to Candidacy</b> (Complete and return "Application for Teacher Education Program Candidacy" to the Education Department no sooner than the completion of 48 credits and no later than 65 credits.)			
Fall	Credits	Spring	Credits
♦ PHYS 111 or 113 General Physics I	3	♦ PHYS 112 or 114 General Physics II	3
♦ PHYS 111L or 113L General Physics I Lab	1	♦ PHYS 112L or 114L General Physics II Lab	1
Track Course*	3 - 4	Track Course*	3 - 4
Core Course <sup>1</sup>	3	EDUC 305	3
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
EDUC 270	3	Core Course <sup>1</sup>	3
	<b>16-17</b>		<b>16-17</b>
Fall	Credits	Spring	Credits
Track Course*	3 - 4	Track Course*	3 - 4
Core Course <sup>1</sup>	3	Track Course*	3 - 4
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
Core Course <sup>1</sup>	3	EDUC 366 <sup>3,4</sup> Methods For Teaching Diverse Learners	3
EDUC 302 <sup>3,4</sup> Secondary Science Methods	3	EDUC 350 <sup>3,4</sup> Secondary Classroom Management	3
EDUC 231 and 232	2		
	<b>17-18</b>		<b>15-17</b>
Fall	Credits		
EDUC 467 <sup>3,4</sup> Observation & Student Teach. (Sec.)	10	<b>Students who wish to finish in four (4) years (including Student Teaching) MUST take summer courses.</b>	
EDUC 468 <sup>3,4</sup> Student Teaching Seminar	2		
EDUC 440 <sup>4</sup> Inclusive Education	3		
<b>Take Praxis II</b>			
	<b>15</b>		
<b>Minimum Credits Required for Graduation = 144</b>			

**NOTES:**

<sup>1</sup>Choose one course from each of the Core Requirements listed on the reverse side.  
<sup>2</sup>Course may satisfy both a Major and a Core requirement. BIOL 113 and CHEM 113 satisfy the Scientific Endeavor and Science in Context Core requirement. MATH 125 will satisfy the Quantitative Reasoning Core requirement.  
<sup>3</sup>Updated Child Abuse & Criminal Record & FBI Clearances **REQUIRED** for EDUC 235, EDUC 240, EDUC 270, EDUC 302, EDUC 305, EDUC 350, EDUC 366, EDUC 440, EDUC 467, and EDUC 468.  
<sup>4</sup> PR Course has a prerequisite – check college catalog.  
♦ Students considering the Physics track should take PHYS 113, 113L, 114, & 114L during their freshman year in exchange for the Biology courses.  
The standard semester course load is five courses consisting of 15 – 17 credits. A student may take 18 credits if the science lab puts them over 17 credits (*for more information about credit loads, please see the college catalog*). Students are encouraged to take some Core courses during the summer months to help "lighten" their course load during a semester.  
All Secondary Teacher Certification candidates must complete six credits of college level mathematics and six credits of college level English:  
MATH: 125, 128 ENGL: 110, 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.