Mathematics / Secondary Education

Bachelor of Arts (BA.MATH(SEC))

Core Require	ements		Credits	Notes/Instructions
College Sem.	Quest for Meaning	CSEM 100	3	†A student may be
Communication & Creative Expression	Writing Oral Communication Literature The Arts	ENGL 110 [†] COMM 101 ENGL 140-149 ARTS 100-149	3 3 3 3	required to take ENGL 105 and/or MATH 100 based on placement exams administered prior to their first semester at King's
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	College. ENGL 105 and MATH 100 are 3-credit courses and will count as free electives.
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	Competence requirement can be satisfied by taking a 100- level language class for 3 credits or participating ir an approved Study
Wisdom, Faith, & the Good Life	Introduction to Phil. Phil. Investigations Theology & Wisdom Theology & the Good Life	PHIL 101 PHIL 170-199; MSB 287 THEO 150-159 THEO 160-169	3 3 3 3	Abroad experience. SBM = Satisfied By Major requirement(s) and credit(s) listed below.
		Total Core Credits	39	

Major Requirements	Credits	Major Requirements	Credits	Secondary Education Requirements	Credits
MATH 127 ^{2,5}	3	CS 112	3	EDUC 202	3
MATH 129 ⁵	4	CS 1xx	3	EDUC 231	1
MATH 130	4	Science Group ^{2,*}	3	EDUC 232	1
MATH 231 ⁶	4	Science Group ^{2,*}	3	EDUC 235 ³	3
MATH 235 ⁶	3	MATH 236 ⁸	3	EDUC 240 ³	3
MATH 250	4	MATH 361	3	EDUC 270 ³	3
MATH 367	3	MATH 362	3	EDUC 299⁴	0
MATH 425	3	MATH Elective**	3	EDUC 305 ^{3, 4}	3
MATH 490	1		_	EDUC 320 ^{3, 4}	3
			_	EDUC 350 ^{3,4}	3
			_	EDUC 366 ^{3, 4}	3
			_	EDUC 440 ⁴	3
			_	EDUC 467 ^{3, 4}	10
		Other Requirements		EDUC 468 ^{3, 4}	2
	_	HCE 101 Holy Cross Exp.	1		
		Total Major and		Total Secondary	
Total Major Credits	29	Other Credits	25	Education Credits	41

Total Credits Required for Graduation = 134

*All students majoring in Mathematics must take one of the Science Groups below (lab portion not required):

	Science Group 1*		Science Group 2*		Science Group 3*
Ī	CHEM 113	OR	PHYS 111	OR	PHYS 113 (Calculus based)
	CHEM 114		PHYS 112		PHYS 114 (Calculus based)

^{**} One additional Math Elective numbered 300 or Higher

	MATH Electives	
MATH 301	MATH 363	MATH 418
MATH 361	MATH 365	MATH 420
MATH 362	MATH 391	MATH 491

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.

Mathematics / 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	Cre
MATH 127 ⁵ Logic & Axiomatics	3	MATH 130 Analytic Geometry & Calculus II	
MATH 129 ⁵ Analytic Geometry & Calculus I	4	CS 111 ⁷ Program. for Sci. & Engineering	
Core Course ¹	3	Core Course ¹	
Core Course ¹	3	Core Course ¹	
Core Course ¹	3	Core Course ¹	
HCE 101 Holy Cross Experience	1		
	17		
Summer ***	Credits		
Core Course ¹	3		
	3		
Fall	Credits	Spring	Cr
MATH 231 ⁶ Analytic Geometry & Calculus III	4	MATH 250 Linear Algebra	
MATH 235 ⁶ Discrete Mathematics	3	MATH 236 ⁸ College Geometry or Core Course ¹	
Science Group ² ,*	3	Science Group ^{2,*}	
CS 1128 Intro. to Programming	3	EDUC 202 Educ. Philos., Ethics, Issues & Trends	
EDUC 235 ³ Sec. Development, Cognition, & Learn	3	EDUC 240 ² Sec. Multicult., Linguistic & Inst. Meth.	
EDUC 231 Technology Module I	1	EDUC 2994	
- EDUC 231 Technology Widdule 1	17		
Admission to Candidasy (Complete and return "An		ucation Program Candidacy" to Education Administrative	
Assistant no sooner than the completion of 48 cred	•	•	
		in Carlos)	
Summer ***	Credits		
Summer *** Core Course ¹	Credits 3 3		
	3	Spring MATH 490 Junior Seminar	Cı
Core Course ¹	3 3 Credits		Cı
Fall MATH 367 Real Analysis I	3 Credits 3	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹	Cı
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I	3 Credits 3 3	MATH 490 Junior Seminar	Cı
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR	3 Credits 3 3	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II	Cı
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR EDUC 320 ^{3,4} Secondary Mathematics Methods	3 Credits 3 3 3 3	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II EDUC 366 ^{3,4} Methods For Teaching Diverse Learners	C
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR EDUC 320 ^{3,4} Secondary Mathematics Methods Core Course ¹ / MATH Elective**	3 Credits 3 3 3	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II EDUC 366 ^{3,4} Methods For Teaching Diverse Learners EDUC 350 ^{3,4} Secondary Classroom Management	C
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR EDUC 320 ^{3,4} Secondary Mathematics Methods	3 Credits 3 3 3 3 3	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II EDUC 366 ^{3,4} Methods For Teaching Diverse Learners	C
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR EDUC 320 ^{3,4} Secondary Mathematics Methods Core Course ¹ / MATH Elective** EDUC 232 Technology Module II	3 Credits 3 3 3 3 1	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II EDUC 366 ^{3,4} Methods For Teaching Diverse Learners EDUC 350 ^{3,4} Secondary Classroom Management	Cı
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR EDUC 320 ^{3,4} Secondary Mathematics Methods Core Course ¹ / MATH Elective**	3 Credits 3 3 3 1	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II EDUC 366 ^{3,4} Methods For Teaching Diverse Learners EDUC 350 ^{3,4} Secondary Classroom Management	C
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270 ³ Introduction to Special Education EDUC 305 ^{3,4} Assessment I OR EDUC 320 ^{3,4} Secondary Mathematics Methods Core Course ¹ / MATH Elective** EDUC 232 Technology Module II	3 Credits 3 3 3 3 1	MATH 490 Junior Seminar MATH 236 ³ College Geometry or Core Course ¹ MATH 362 Probability & Statistics II EDUC 366 ^{3,4} Methods For Teaching Diverse Learners EDUC 350 ^{3,4} Secondary Classroom Management	Cı
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270³ Introduction to Special Education EDUC 305³.4Assessment I OR EDUC 320³.4 Secondary Mathematics Methods Core Course¹ / MATH Elective** EDUC 232 Technology Module II	3 Credits 3 3 3 3 1 16 Credits	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹ MATH 362 Probability & Statistics II EDUC 366³.4 Methods For Teaching Diverse Learners EDUC 350³.4 Secondary Classroom Management Core Course¹ / MATH Elective**	
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270³ Introduction to Special Education EDUC 305³.⁴Assessment I OR EDUC 320³.⁴ Secondary Mathematics Methods Core Course¹ / MATH Elective** EDUC 232 Technology Module II Summer	3 Credits 3 3 3 3 1 16 Credits	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹ MATH 362 Probability & Statistics II EDUC 366³.⁴ Methods For Teaching Diverse Learners EDUC 350³.⁴ Secondary Classroom Management Core Course¹ / MATH Elective**	
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270³ Introduction to Special Education EDUC 305³.4 Assessment I OR EDUC 320³.4 Secondary Mathematics Methods Core Course¹ / MATH Elective** EDUC 232 Technology Module II Summer Fall MATH 425 Abstract Algebra	3 Credits 3 3 3 3 1 16 Credits	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹ MATH 362 Probability & Statistics II EDUC 366³.4 Methods For Teaching Diverse Learners EDUC 350³.4 Secondary Classroom Management Core Course¹ / MATH Elective** Spring EDUC 467³.4 Observation & Student Teach. (Sec.)	Ci
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270³ Introduction to Special Education EDUC 305³.⁴Assessment I OR EDUC 320³.⁴ Secondary Mathematics Methods Core Course¹ / MATH Elective** EDUC 232 Technology Module II Summer Fall MATH 425 Abstract Algebra Core Course¹ / MATH Elective**	3 Credits 3 3 3 3 1 16 Credits	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹ MATH 362 Probability & Statistics II EDUC 366³.⁴ Methods For Teaching Diverse Learners EDUC 350³.⁴ Secondary Classroom Management Core Course¹ / MATH Elective**	
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Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270³ Introduction to Special Education EDUC 305³.4 Assessment I OR EDUC 320³.4 Secondary Mathematics Methods Core Course¹ / MATH Elective** EDUC 232 Technology Module II Summer Fall MATH 425 Abstract Algebra Core Course¹ / MATH Elective** EDUC 305³.4 Assessment I OR EDUC 320³.4 Secondary Mathematics Methods	3 Credits 3 3 3 3 1 16 Credits Credits 3 3 3	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹ MATH 362 Probability & Statistics II EDUC 366³.4 Methods For Teaching Diverse Learners EDUC 350³.4 Secondary Classroom Management Core Course¹ / MATH Elective** Spring EDUC 467³.4 Observation & Student Teach. (Sec.) EDUC 468³.4 Student Teaching Seminar EDUC 440⁴ Inclusive Education	
Fall MATH 367 Real Analysis I MATH 361 Probability & Statistics I EDUC 270³ Introduction to Special Education EDUC 305³.4 Assessment I OR EDUC 320³.4 Secondary Mathematics Methods Core Course¹ / MATH Elective** EDUC 232 Technology Module II Summer Fall MATH 425 Abstract Algebra Core Course¹ / MATH Elective** EDUC 305³.4 Assessment I OR EDUC 320³.4 Secondary Mathematics Methods Core Course¹	3 Credits 3 3 3 3 1 16 Credits Credits 3 3 3 3 3 3 3 3 3 3 3 3 3	MATH 490 Junior Seminar MATH 236³ College Geometry or Core Course¹ MATH 362 Probability & Statistics II EDUC 366³.4 Methods For Teaching Diverse Learners EDUC 350³.4 Secondary Classroom Management Core Course¹ / MATH Elective** Spring EDUC 467³.4 Observation & Student Teach. (Sec.) EDUC 468³.4 Student Teaching Seminar	

NOTES:

 $[\]ensuremath{^{***}}$ 6 credits during Summer Session are suggested in order to finish the degree in four years.

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.

³ Updated Child Abuse & Criminal Record & FBI Clearances <u>REQUIRED</u> for EDUC 235, EDUC 240, EDUC 320, EDUC 305, EDUC 350, EDUC 366, EDUC 467 and EDUC 468.

⁴ EDUC 299 Basic Skills is a pre-requisite for all 300 and 400 level education courses. In order to register for this course, you must take and pass all basic skills tests.

 $^{^{\}rm 5}$ Courses intended to be taken concurrently. Do not delay taking MATH 127.

⁶ Courses intended to be taken concurrently. Do not delay taking MATH 235.

 $^{^{7}\,\}mathrm{CS}$ 100 or CS 120 may be substituted for CS 111.

⁸ MATH 236 offered spring semester even years only. Students should take this course during their 2 nd or 3 rd year.

PR Course has a prerequisite – check college catalog.