

Mathematics

Bachelor of Arts (BA.MATH)

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) SBM = Satisfied By Major requirement(s) and credit(s) 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 ¹⁰ , 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	
Total Core Credits				39	

Major Requirements	Credits	Major Requirements	Credits	Electives ³ / Other Requirements	Credits
MATH 127 ^{2,5}	3	CS 112	3	HCE 101 Holy Cross Exp.	1
MATH 129 ⁵	4	CS 111 or CS 120	3	Free Elective	3
MATH 130	4	Science Group ^{2,*}	3	Free Elective	3
MATH 231 ⁶	4	Science Group ^{2,*}	3	Free Elective	3
MATH 235 ⁶	3	MATH Track ^{**}	3	Free Elective	3
MATH 250	4	MATH Track ^{**}	3	Free Elective	3
MATH 367	3	MATH Track ^{**}	3	Free Elective	3
MATH 425	3	MATH Track ^{**}	3	Free Elective	3
MATH 490	1	MATH Track ^{**}	3	Free Elective	3
Total Major Credits		29	Total Elective / Other Credits		25

Total Credits Required for Graduation = 120

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

Science Group 1*	OR	Science Group 2*	OR	Science Group 3*
CHEM 113		PHYS 111		PHYS 113 (<i>Calculus based</i>)
CHEM 114		PHYS 112		PHYS 114 (<i>Calculus based</i>)

**In addition to the above, each B. A. Mathematics Major must complete one of the following three tracks:

MATH Track 1 Graduate School	MATH Track 2 Actuary Science, Industry, & Government	MATH Track 3 Secondary Education
Students must take five (5) math courses numbered 300 or higher. Typical options are:	Students must take five (5) math courses numbered 300 or higher. The following (5) courses are recommended	See program planner specifically designed for Math / Secondary Education
MATH 301 MATH 365 MATH 361 MATH 418 MATH 362 MATH 420 MATH 363 MATH 391/491	MATH 301 MATH 363 MATH 361 MATH 365 MATH 362	

Mathematics

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
_____	MATH 127 ⁵ Logic & Axiomatics	3	_____	MATH 130 Analytic Geometry & Calculus II	4
_____	MATH 129 ⁵ Analytic Geometry & Calculus I	4	_____	CS 111 ⁹ Program. for Sci. & Eng. or Core Course ¹	3
_____	Core Course	3	_____	Core Course	3
_____	Core Course	3	_____	Core Course	3
_____	Core Course	3	_____	Core Course	3
_____	HCE 101 Holy Cross Experience	1			
		17			16
Summer		Credits			
Fall		Credits	Spring		Credits
_____	MATH 231 ⁶ Analytic Geometry & Calculus III	4	_____	MATH 250 Linear Algebra	4
_____	MATH 235 ⁶ Discrete Mathematics	3	_____	Core Course ¹ or Free Elective ^{3,4,7}	3
_____	Core Course ¹	3	_____	Core Course ¹	3
_____	CS 112 ⁸ Intro. to Programming	3	_____	CS 111 ⁹ Program. for Sci. & Eng. or CS 120 ⁸ OO	
_____	Science Group ^{2,*}	3	_____	Software Development or Core Course ¹	3
		16	_____	Science Group ^{2,*}	3
					16
Summer		Credits			
Fall		Credits	Spring		Credits
_____	MATH 367 ¹¹ Real Analysis I or MATH 425 ¹¹ Abstract Algebra	3	_____	MATH 490 Junior Seminar	1
_____	MATH Track**	3	_____	MATH Track**	3
_____	Core Course ¹	3	_____	MATH Track**	3
_____	Core Course ¹	3	_____	Core Course ¹	3
_____	Free Elective ^{3,4,7}	3	_____	Free Elective ^{3,4,7}	3
		15			13
Summer		Credits			
Fall		Credits	Spring		Credits
_____	MATH 367 ¹¹ Real Analysis I or MATH 425 ¹¹ Abstract Algebra	3	_____	MATH Track**	3
_____	MATH Track**	3	_____	Core Course ¹ or Free Elective ^{3,4,7}	3
_____	Core Course ¹	3	_____	Free Elective ^{3,4,7}	3
_____	Free Elective	3	_____	Free Elective ^{3,4,7}	3
_____	Free Elective ^{3,4,7}	3			
		15			12
Total Credits Required for Graduation = 120					

NOTES:

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

²Course may satisfy both a Major and a Core requirement.

³Students may select "free electives" for personal enrichment **OR** for Minor and/or Second Major Requirements.

⁴ECON 222 is recommended for students on MATH Track 2. MATH 362 substitutes for ECON 221 as course prerequisite.

⁵Courses intended to be taken concurrently. Do not delay taking MATH 127.

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

⁷MATH 238 is recommended for students on MATH Tracks 1 and 2.

⁸Students contemplating MATH and CS double-majoring and with a high GPA may take CS 112 and CS 120 in their 1st year.

⁹CS 100 may be substituted for CS 111.

¹⁰ECON 111 Intro to Macroeconomics is highly recommended for students on MATH Track 2.

¹¹MATH 367 is offered fall semesters odd years only and MATH 425 is offered fall semesters even years only.

^{PR} Course has a prerequisite – check college catalog.