

Computer Science

Bachelor of Science (BS.CS)

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. 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	-	
	Scientific Endeavor	NSCI 100	3	
	Science in Context	NSCI 171-199	3	
	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; MSB 287	3	
	Theology & Wisdom	THEO 150-159	3	
	Theology & the Good Life	THEO 160-169	3	
Total Core Credits			45	

Major Requirements		Credits	Electives ³ / Other Requirements	Credits
CS 112 Intro. to Programming (<i>fall</i>)	3	HCE 101 Holy Cross Experience	1	
CS 120 ^{PR} OO Software Dev. (<i>spring</i>)	3	Free Elective ^{3,4}	3	
CS 120L ^{PR} OO Software Dev. Lab (<i>spring</i>)	1	Free Elective ^{3,4}	3	
CS 232 ^{PR} Data Structures (<i>fall</i>)	3	Free Elective ^{3,4}	3	
CS 232L ^{PR} Data Structures Lab (<i>fall</i>)	1	Free Elective ^{3,4}	3	
CS 233 ^{PR} Adv. Data Structures (<i>spring</i>)	3	Free Elective ^{3,4}	3	
CS 233L ^{PR} Adv. Data Structures Lab (<i>spring</i>)	1			
CS 256 ^{PR} Database Management	3			
CS 256L ^{PR} Database Management Lab	1			
CS 270 ^{PR} Computer Organization	3			
CS 270L ^{PR} Computer Organization Lab	1			
CS 480 ^{PR} Software Engineering (<i>fall</i>)	3			
CS 481 ^{PR} Appl. Soft. Engr. OR CS 499 ^{PR} CS Internship	3			
CS Elective ^{*,PR}	3			
CS Elective ^{*,PR}	3			
CS Elective ^{*,PR}	3			
CS Elective ^{*,PR}	3			
CS Elective ^{*,PR}	3			
CS Elective ^{*,PR}	3			
MATH 127 Logic & Axiomatics	3			
MATH 129 ² Calculus I	4			
MATH 130 ^{PR} Calculus II	4			
MATH 235 ^{PR} Discrete Mathematics	3			
Total Major Credits		61	Total Elective / Other Credits	16

Total Credits Required for Graduation = 122

*A student majoring in Computer Science must complete six (6) of the following CS Electives (only 2 can be CIS courses):

CS Elective ^{*,PR}					
CS 305	CS 328	CS 364	CS 380	CS 448	CIS 386
CS 315	CS 336	CS 375	CS 420	CIS 385	CIS 487
Any CS course 300 or higher					

**The following "Free Electives" are recommended for Computer Science majors: MATH 126, MATH 237, PHYS 111 & PHYS 111L. CIS 106 is recommended particularly to freshman choosing between Computer Science and Computer Information Systems.

General Information:

A student must earn a minimum of 120 credit hours to be awarded the baccalaureate degree. The number of credit hours required for graduation may be higher in certain major programs **or** if the student elects to pursue a second major. Beyond the requirements of the Core Curriculum and of a student's chosen major program, the balances of the credit hours required for graduation are "free electives."

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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 2019		Credits	Spring 2020		Credits
CS 112 Intro. to Programming (<i>fall only</i>)		3	CS 120 ^{PR} OO Software Development (<i>spring only</i>)		3
MATH 127 ² Logic & Axiomatics (<i>fall only</i>)		3	CS 120L ^{PR} OO Software Devel. Lab (<i>spring only</i>)		1
MATH 129 ² Analytical Geometry & Calculus I		4	MATH 130 ^{PR} Analytical Geometry & Calculus II		4
Core Course ¹ (<i>ENGL 110</i>) and/or CIS 106 ⁴		3	Core Course ¹ (<i>ARTS 100 – 149</i>)		3
HCE 101 Holy Cross Experience		1	Core Course ¹ (<i>CSEM 100 Quest for Meaning</i>)		3
(Core Course ²)		(3)	Core Course ¹		3
<i>(A student may take an additional course up to 17 credits)</i>					17
Summer 2020		Credits			
Fall 2020		Credits	Spring 2021		Credits
CS 232 ^{PR} Data Structures (<i>fall only</i>)		3	CS 233 ^{PR} Adv. Data Structures (<i>spring only</i>)		3
CS 232L ^{PR} Data Structures (<i>fall only</i>)		1	CS 233 ^{PR} Adv. Data Structures Lab (<i>spring only</i>)		1
CS 256 ^{PR} Database Management Systems		3	CS 270 ^{PR} Computer Organization		3
CS 256L ^{PR} Database Management Systems Lab		1	CS 270L ^{PR} Computer Organization Lab		1
MATH 235 ^{PR} Discrete Mathematics		3	Core Course ¹		3
Core Course ¹		3	Core Course ¹		3
Core Course ¹		3	Core Course ¹		3
					17
Summer 2021		Credits			
Fall 2021		Credits	Spring 2022		Credits
CS Elective ^{*,PR}		3	CS Elective ^{*,PR}		3
CS Elective ^{*,PR}		3	CS Elective ^{*,PR}		3
Core Course ¹		3	Core Course ¹		3
Core Course ¹		3	Core Course ¹		3
Free Elective ^{3,4}		3	Free Elective ^{3,4}		3
					15
Summer 2022		Credits			
Fall 2022		Credits	Spring 2023		Credits
CS 480 Software Engineering		3	CS 481 Appl. Soft. Engr. OR CS 499 CS Internship		3
CS Elective ^{*,PR}		3	CS Elective ^{*,PR}		3
Core Course ¹		3	Core Course ¹		3
Free Elective ^{3,4}		3	Free Elective ^{3,4}		3
Free Elective ^{3,4}		3	(Core Course ¹ OR Free Elective ³ – if needed)		(3)
					12-15
Total Credits Required for Graduation = 122					

NOTES:

¹The standard semester course load is five courses consisting of 15 – 17 credits. A student may take 18 credits if a lab puts them over 17 credits (*for more information about credit loads, please see the college catalog*).

²Choose one course from each of the Core Requirements listed on the reverse side.

³Course may satisfy both a Major and a Core requirement. MATH 127 or MATH 129 will satisfy the Quantitative Reasoning Core requirement.

⁴Students may select “free electives” for personal enrichment **OR** for Minor and/or Second Major Requirements.

⁴ The following “Free Electives” are recommended for Computer Science majors: MATH 126, MATH 237, PHYS 111 & PHYS 111L. CIS 106 is recommended particularly to freshman choosing between Computer Science and Computer Information Systems.

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