Civil Engineering

Bachelor of Science (BS. ENGC)

Core Requirements				Credits
College Sem.		Quest for Meaning	CSEM 100	3
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
			Total Core Credits	**39**

Notes/Instructions

†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.

Mathematics and Science Requirements	Credits
PHYS 113[CR,2] Physics for Scientists & Engineers I	3
PHYS 113L Physics for Scientists & Engineers I Lab	1
PHYS 114[PR] Physics for Scientists & Engineers II	3
PHYS 114L[PR] Physics for Scientists & Engineers II Lab	1
CHEM 113[2] General Chemistry I	3
CHEM 113L General Chemistry I Lab	1
MATH 129 Calculus I	4
MATH 130[PR] Calculus II	4
MATH 231[PR] Calculus III	4
MATH 237[PR] Math Methods for Physical Sciences	3
MATH 238[PR] Differential Equations	3
ENST 202 Environmental Science II	3
ENST 202L Environmental Science II Lab	1
Other Requirements	
HCE 101 Holy Cross Experience	1

Civil Engineering Requirements	Credits
PHYS 241[PR] Statics	3
PHYS 242[PR] Mechanics of Solids	3
ENGR 150 Engineering Seminar	2
ENGR 350[PR] Engineering Materials	3
ENGR 350L[PR] Engineering Materials Lab	0.5
ENGR 360[PR] Probability & Engineering Statistics	3
CE 111 Computer Applications for Civil Engineers	2
CE 111L Computer Applications for Civil Engs Lab	1
CE 200[PR] Introduction to Civil Engineering	3
CE 200L[PR] Introduction to Civil Engineering Lab	0.5
CE 300[PR] Dynamics	3
CE 310[PR] Fluid Mechanics	3
CE 310L[PR] Fluid Mechanics Lab	0.5
CE 320[PR] Civil Engineering Materials	3
CE 325L[PR] Materials and Soils Lab	1
CE 330[PR] Project Mgmt & Engineering Economics	3
CE 340[PR] Hydraulics and Hydrology	3
CE 340L[PR] Hydraulics and Hydrology Lab	1
CE 350[PR] Environmental Engineering	3
CE 360[PR] Soil Mechanics	3
CE 400[PR] Structural Design and Analysis I	3
CE 400L[PR] Structural Design and Analysis I Lab	1
CE 410[PR] Structural Design and Analysis II	3
CE 410L[PR] Structural Design and Analysis II Lab	1
CE 420[PR] Transportation Engineering	3
CE 440[PR] Senior Design	3
CE 440L[PR] Senior Design Lab	1
CE 450[PR] Special Topics in Civil Engineering	3
CE 480[PR] Senior Civil Engineering Seminar	1

Total Mathematics & Science & Other Credits	35	Total Civil Engineering Credits	63.5

Total Credits Required for Graduation = 137.5

Civil Engineering students are eligible to sit for industry certification exams based on the completion of the following courses:

- CE 330: Proj Mgmt & Eng Econ: Certified Associate in Project Management (CAPM)® - Project Management Institute

See reverse side for a suggested sequence

Effective 07/01/23

Civil Engineering

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
	CHEM 113[2] General Chemistry I	3		CE 111 Computer Applications for Civil Engineers	2
	CHEM 113L General Chemistry I Lab	1		CE 111L Computer Applications for Civil Engs Lab	1
	PHYS 113[CR,2] Physics for Scientists & Engineers I	3		PHYS 114[PR] Physics for Scientists & Engineers II	3
	PHYS 113L Physics for Scientists & Engineers I Lab	1		PHYS 114L[PR] Physics for Scientists & Engineers II Lab	1
	MATH 129[2] Calculus I	4		MATH 130[PR] Calculus II	4
	ENGR 150 Engineering Seminar	2		Core Course[1]	3
	HCE 101 Holy Cross Experience	1		Core Course[1]	3
		15			**17**
	Summer	**Credits**			
	Fall	**Credits**		**Spring**	**Credits**
	CE 200[PR] Introduction to Civil Engineering	3		ENGR 350[PR] Engineering Materials	3
	CE 200L[PR] Introduction to Civil Engineering Lab	0.5		ENGR 350L[PR] Engineering Materials Lab	0.5
	MATH 231[PR] Calculus III	4		PHYS 242[PR] Mechanics of Solids	3
	MATH 238[PR] Differential Equations	3		MATH 237[PR] Math Methods for Physical Sciences	3
	PHYS 241[PR] Statics	3		ENGR 360[PR] Probability & Engineering Statistics	3
	Core Course[1]	3		ENST 202 Environmental Science II	3
				ENST 202L Environmental Science II Lab	1
				Core Course[1]	3
		16.5			**19.5***
	Summer	**Credits**			
	Fall	**Credits**		**Spring**	**Credits**
	CE 310[PR] Fluid Mechanics	3		CE 360[PR] Soil Mechanics	3
	CE 310L[PR] Fluid Mechanics Lab	0.5		CE 325L[PR, CR] Materials and Soils Lab	1
	CE 330[PR] Project Mgmt & Engineering Economics	3		CE 340[PR] Hydraulics and Hydrology	3
	CE 300[PR] Dynamics	3		CE 340L[PR] Hydraulics and Hydrology Lab	1
	CE 320[PR] Civil Engineering Materials	3		CE 350 Environmental Engineering	3
	Core Course[1]	3		Core Course[1]	3
	Core Course[1]	3		Core Course[1]	3
		18.5*			**17**
	Summer	**Credits**			
	Fall	**Credits**		**Spring**	**Credits**
	CE 400[PR] Structural Design and Analysis I	3		CE 410[PR] Structural Design and Analysis II	3
	CE 400L[PR] Structural Design and Analysis I Lab	1		CE 410L[PR] Structural Design and Analysis II Lab	1
	CE 420[PR] Transportation Engineering	3		CE 440[PR] Senior Design	3
	CE 450[PR] Special Topics in CE or Core Course	3		CE 440L[PR] Senior Design Lab	1
	Core Course[1]	3		CE 480[PR] Senior Civil Engineering Seminar	1
	Core Course[1]	3		Core Course[1] or CE 450[PR] Special Topics in CE	3
				Core Course[1]	3
				Core Course[1]	3
		16			**18***

Total Credits Required for Graduation = 137.5

NOTES:

* Students are encouraged to take a summer course to relieve the credit load during this semester

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

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

[PR] Course has a prerequisite – check college catalog.

[CR] Course has a co-requisite – check college catalog.