

CIVIL ENGINEERING

BACHELOR OF SCIENCE (BS.ENGCG)

CORE Requirements	Credits	Foundational Science and Mathematics Requirements	Credits	Civil Engineering Requirements	Credits
CORE 090 First Year Exp.	1	PHYS 113 Physics for Sc & Eng I	3	ENST 201 Environmental Science I	3
CORE 100 Lib Arts Sem.	3	PHYS 113L Phy for Sc & Eng I Lab	1	ENST 201L Environ Science I Lab	1
CORE 110 Effective Writ.	3	PHYS 114 Physics for Sc & Eng II	3	PHYS 241 Statics	3
CORE 115 or 116 Oral Comm.	3	PHYS 114L Phy for Sc & Eng II Lab	1	PHYS 242 Mechanics of Solids	3
CORE 131 or 133 Civilization	3	CHEM 113 Gen. Chem. I	3	CS 111 Programing for Science & Eng	2
CORE 140 or 141-145 Forgn.	3	CHEM 113L Gen. Chem. I Lab	1	CS 111L Prog for Science & Eng Lab	1
CORE 150-159 Soc. Sci. ¹	3	CHEM 114 Gen. Chem. II	3	ENGR 150 Engineering Seminar	2
CORE 160-169 Literature	3	CHEM 114L Gen. Chem. II Lab	1	ENGR 250 System Design & Analysis	3
CORE 170-179 The Arts	3	MATH 129 Calculus I	4	ENGR 250L Sys Design & Analysis Lab	1
CORE 180-189 Amer. Studies ¹	3	MATH 130 Calculus II	4	ENGR 320 Fluid Mechanics	3
CORE 190-199 Global Studies ¹	3	MATH 231 Calculus III	4	ENGR 320L Fluid Mechanics Lab	.5
CORE 250-259 Syst. Theology	3	MATH 237 Math Meth. for Phys. Sci.	3	ENGR 330 Project Mgmt & Eng Econ	3
CORE 260-269 Mor. Theology	3	MATH 238 Differential Equations	3	ENGR 350 Engineering Materials	3
CORE 280 Philosophy I	3			ENGR 350L Engineering Materials Lab	.5
CORE 281-289 Philosophy II	3			ENGR 360 Probability & Eng Statistics	3
				CE 200 Introduction to Civil Engineering	3
				CE 200L Intro to Civil Engineering Lab	.5
				CE 300 Dynamics and Modeling	3
				CE 320 Civil Engineering Materials	3
				CE 320L Civil Eng Materials Lab	1
				CE 340 Hydraulics and Hydrology	3
				CE 340L Hydraulics and Hydrology Lab	1
				CE 360 Geotechnical Engineering	3
				CE 400 Structural Design and Analysis I	3
				CE 400L Structural Design I Lab	1
				CE 410 Structural Design and Analysis II	3
				CE 410L Structural Design II Lab	1
				CE 420 Transportation Engineering	3
				CE 430 Environmental Engineering	3
				CE 440 Senior Design	3
				CE 440L Senior Design Lab	1
				CE 480 Senior Civil Engineering Seminar	1
	43		34		68.5

Total Credits = 145.5

¹Students are required to take CORE 150, CORE 180 **OR** CORE 190 to fulfill the Interdisciplinary CORE requirement.

- If a student takes CORE 150, then choose from 181 – 188 to fulfill the 18x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 180, then choose from 151 – 158 to fulfill the 15x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 190, then choose from 151 – 158 to fulfill the 15x requirement AND from 181 – 188 to fulfill the 18x requirement.

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

- ENGR 330: Proj Mgmt & Eng Econ: Certified Associate in Project Management (CAPM)[®] - Project Management Institute
- CE 480 Senior CE Seminar: Fundamentals of Engineering – Civil (NCEES)

CIVIL ENGINEERING

SUGGESTED SEQUENCE – 4 YEAR PROGRAM

- Use the information below as a guide when selecting courses.
- Refer to the reverse side in order when selecting major courses, major electives, core courses, and free electives when applicable.
- Consult your Academic Advisor prior to course registration.
- Refer to the King's College Catalog and/or website for course titles and descriptions.
- Choose one course from each CORE category as listed on the reverse side.
 - CORE courses may be taken in any order approved by the academic advisor with the following conditions:
 - CORE 100 and CORE 110 should be taken in the first year whenever possible.
 - CORE 115 (or 116) should be taken within the first two years whenever possible.
 - For students selecting a Foreign Language (CORE 14x), every effort should be made to register for that language in the first available semester at King's.

1st Year - Fall		cr.	1st Year - Spring		cr.
_____	CHEM 113 General Chemistry I	3	_____	CHEM 114 General Chemistry II	3
_____	CHEM 113L General Chemistry I Lab	1	_____	CHEM 114L General Chemistry II Lab	1
_____	PHYS 113 Physics for Scientists & Engineers I	3	_____	PHYS 114 Physics for Scientists & Engineers II	3
_____	PHYS 113L Physics for Scientists & Eng I Lab	1	_____	PHYS 114L Physics for Scientists & Eng II Lab	1
_____	MATH 129 Calculus I	4	_____	MATH 130 Calculus II	4
_____	ENGR 150 Engineering Seminar	2	_____	CORE	3
_____	CORE 090 First Year Experience	1	_____	CORE	3
		15			18*
2nd Year - Fall			2nd Year - Spring		
_____	CE 200 Introduction to Civil Engineering	3	_____	ENGR 250 System Design & Analysis	3
_____	CE 200L Intro to Civil Engineering Lab	.5	_____	ENGR 250L System Design & Analysis Lab	1
_____	MATH 231 Calculus III	4	_____	ENGR 350 Engineering Materials	3
_____	MATH 237 Math Meth. for Phys. Sciences	3	_____	ENGR 350L Engineering Materials Lab	.5
_____	CS 111 Programming for Science & Eng	2	_____	PHYS 242 Mechanics of Solids	3
_____	CS 111L Programming for Science & Eng Lab	1	_____	MATH 238 Differential Equations	3
_____	PHYS 241 Statics	3	_____	CORE	3
			_____	CORE	3
		16.5			19.5*
3rd Year - Fall			3rd Year - Spring		
_____	ENGR 320 Fluid Mechanics	3	_____	CE 320 Civil Engineering Materials	3
_____	ENGR 320L Fluid Mechanics Lab	.5	_____	CE 320L Civil Eng Materials Lab	1
_____	ENGR 330 Project Mgmt & Eng Econ	3	_____	CE 340 Hydraulics and Hydrology	3
_____	CE 300 Dynamics and Modeling	3	_____	CE 340L Hydraulics and Hydrology Lab	1
_____	ENST 201 Environmental Science I	3	_____	ENGR 360 Probability & Engineering Statistics	3
_____	ENST 201L Environmental Science I Lab	1	_____	CORE	3
_____	CORE	3	_____	CORE	3
_____	CORE	3			
		19.5*			17
4th Year - Fall			4th Year - Spring		
_____	CE 400 Structural Design and Analysis I	3	_____	CE 410 Structural Design and Analysis II	3
_____	CE 400L Structural Design and Analysis I Lab	1	_____	CE 410L Structural Design and Analysis II Lab	1
_____	CE 360 Geotechnical Engineering	3	_____	CE 430 Environmental Engineering	3
_____	CE 420 Transportation Engineering	3	_____	CE 440 Senior Design	3
_____	CORE	3	_____	CE 440L Senior Design Lab	1
_____	CORE	3	_____	CE 480 Senior CE Seminar	1
_____	CORE	3	_____	CORE	3
			_____	CORE	3
		19*	_____	CORE	21*

Total Credits Required for Graduation = 145.5

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