

ENVIRONMENTAL SCIENCE – ENVIRONMENTAL ENGINEERING TRACK

3+2 ENGINEERING DUAL DEGREE PROGRAM WITH NOTRE DAME - COURSE REQUIREMENTS

CORE Requirements	Credits	King's Requirements	Credits	Notre Dame Requirements	Credits
CORE 090 First Yr Exp.	1	ENST 201 Environ Science I	3	CE 20110 Planet Earth	4
CORE 100 Lib Arts Sem.	3	ENST 201L Environ Science I Lab	1	CE 20150 Statics	-
CORE 110 Effect Writ.	3	ENST 202 Environ Science II	3	CE 20200 Environmental Mineralogy	3
CORE 115 or 116 Oral Comm.	3	ENST 202L Environ Science II Lab	1	CE 20230 Programming	1
CORE 131 or 133 Civilization	3	ENST 401F Water Quality Analysis	3	CE 20300 Change, Water & Energy	-
CORE 140 or 141-145 Forgn.	3	ENST 49X Env. Science Capstone	-	CE 30125 Computational Methods	3
CORE 150-159 Soc. Sci. ¹	3	ENST Major Elective	-	CE 30300 Intro to Env. Eng. w/lab	4
CORE 160-169 Literature	3	ENST Major Elective	-	CE 30320 Water Chemistry & Treatment	3
CORE 170-179 The Arts	3	ENST Major Elective	-	CE 30455 Environmental Hydrology	3
CORE 180-189 Amer. Studies ¹	3	ENST Major Elective	-	CE 30460 Fluid Mechanics	3
CORE 190-199 Global Studies ¹	3	ENST Major Elective	-	CE 30510 Geotechnical Eng. w/ Lab	4
CORE 250-259 Syst. Theology	3	ENST Major Elective	-	CE 40320 Env. Aquatic Chemistry	3
CORE 260-269 Mor. Theology	(3)	CHEM 113 Gen. Chem. I	3	CE 40330 Geochemistry	3
CORE 280 Philos. I	(3)	CHEM 113L Gen. Chem. I Lab	1	CE 40341 Biological Process Design	3
CORE 281-289 Philos. II	(3)	CHEM 114 Gen. Chem. II	3	CE 40350 Environmental Microbiology	3
A student will need to complete three (3) of King's College CORE requirements at Notre Dame		CHEM 114L Gen. Chem. II Lab	1	CE 40355 Water Disease/Global Health	3
		CHEM 241 Organic Chem I	3	CE 40420 Reactive Transport	3
		CHEM 241L Organic Chem I Lab	1	CE 40450 Hydraulics	3
		CHEM 242 Organic Chem II	3	CE 40460 Groundwater Hydrology	4
		CHEM 242L Organic Chem II Lab	1	CE 40701 Principles of Practice	1
		BIOL 113 Evolution & Diversity	-	CE 40702 Senior Design	3
		BIOL 113L Evol & Diversity Lab	-	ACMS 30440 Probability & Statistics	-
		BIOL 210 Organisms & Ecosystems	-	Technical Elective	-
		BIOL 210L Organisms & Eco Lab	-	Technical Elective	-
		PHYS 113 Physics for Sci. & Eng. I	3	A&L Course (King's CORE)	3
		PHYS 113L Phys. for Sci./Eng. I Lab	1	A&L Course (King's CORE)	3
		PHYS 114 Physics for Sci. & Eng. II	3	A&L Course (King's CORE)	3
		PHYS 114L Phys. for Sci./Eng. II Lab	1		
		PHYS 241 Statics	3		
		ENGR 150 Engineering Seminar	2		
		ENGR 250 System Design & Analysis	3		
		ENGR 250L Syst. Design & Analysis Lab	1		
		MATH 129 Calculus I	4		
		MATH 130 Calculus II	4		
		MATH 231 Calculus III	4		
		MATH 250 Linear Algebra	4		
		MATH 361 Probability & Statistics I	3		
		CS 111 Programming for Sci. and Eng.	3		
		CS 111L Prog. for Sci. and Eng. Lab	-		
34			66		66

Total Credits = 166

- The 2 course sequence ENST 201/L and ENST 202/L Environmental Science I & II satisfies the Notre Dame requirement for ENVG 20300 Change, Water and Energy
- The Biology requirements for the King's Environmental Science major will be fulfilled by taking CE 40341 Biological Process Design and CE 40350 Environmental Microbiology at Notre Dame
- CHEM 241/L and CHEM 242/L will satisfy Notre Dame's two Technical Elective requirements
- PHYS 241 satisfies the Notre Dame requirement for CE 20150 Statics
- MATH 361 satisfies the Notre Dame requirement for ACMS 30440 Probability & Statistics
- CE 40702 Senior Design taken at Notre Dame will satisfy King's ENST 49X Environmental Science Capstone requirement
- Any other 30000 or 40000 level ENVG or CE courses taken at Notre Dame will satisfy the six King's Environmental Science Major Elective requirements
- Students are encouraged to take CORE 284: Environmental Ethics to fulfill the CORE 28x Philosophy II requirement, and CORE 265: Christian Ethics and the Environment to fulfill the CORE 26x Moral Theology requirement

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 he/she should 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 he/she should 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 he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 181 – 188 to fulfill the 18x requirement.

General Information:

The 3+2 engineering program is a dual degree program. Students spend 3 years at King's College (King's) taking math, science and CORE courses and then transfer to Notre Dame (ND) for 2 years, focusing on engineering courses in their chosen field. Admission into Notre Dame requires a minimum GPA of 3.30 after 5 semesters of college study. Upon successful completion of the program at Notre Dame, students will receive *both* a B.S. in Environmental Science from King's and a B.S. in Environmental Engineering from Notre Dame. (For more information, refer to the college catalog).

ENVIRONMENTAL SCIENCE – ENVIRONMENTAL ENGINEERING TRACK

3+2 DUAL DEGREE ENGINEERING PROGRAM WITH NOTRE DAME - SUGGESTED SEQUENCE

- Use the information below as a guide when selecting courses.
- Refer to the reverse side 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.
 - CORE 115 (or 116) should be taken within the first two years.
 - 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.

King's College					
1st Year - Fall		cr.	1st Year - Spring		cr.
_____	CHEM 113 Gen. Chem. I	3	_____	CHEM 114 Gen. Chem. II	3
_____	CHEM 113L Gen. Chem. I Lab	1	_____	CHEM 114L Gen. Chem. II Lab	1
_____	ENST 201 Environ Science I	3	_____	ENST 202 Environ Science II	3
_____	ENST 201L Environ Science I Lab	1	_____	ENST 202L Environ Science II Lab	1
_____	MATH 129 Calculus I	4	_____	ENGR 150 Engineering Seminar	2
_____	CORE	3	_____	MATH 130 Calculus II	4
_____	CORE 090 First Year Exp.	1	_____	CORE	3
		16			17
2nd Year - Fall			2nd Year - Spring		
_____	PHYS 113 Physics for Scientists & Engineers I	3	_____	PHYS 114 Physics for Scientists & Engineers II	3
_____	PHYS 113L Physics for Sci. & Eng. I Lab	1	_____	PHYS 114L Physics for Sci. & Eng. II Lab	1
_____	MATH 231 Calculus III	4	_____	MATH 250 Linear Algebra	4
_____	CS 111 Programming for Sci. and Eng.	3	_____	ENGR 250 System Design & Analysis	3
_____	CS 111L Prog. for Sci. and Eng. Lab	0	_____	ENGR 250L Syst. Design & Analysis Lab	1
_____	CORE	3	_____	CORE	3
_____	CORE	3	_____	CORE	3
		17			18*
3rd Year - Fall			3rd Year - Spring		
_____	CHEM 241 Organic Chemistry I	3	_____	CHEM 242 Organic Chemistry II	3
_____	CHEM 241L Organic Chemistry I Lab	1	_____	CHEM 242L Organic Chemistry II Lab	1
_____	MATH 361 Probability & Statistics I	3	_____	ENST 401F Water Quality Analysis	3
_____	CORE	3	_____	PHYS 241 Statics	3
_____	CORE	3	_____	CORE	3
_____	CORE	3	_____	CORE	3
		16			16
Notre Dame					
4th Year - Fall			4th Year - Spring		
_____	CE 20110 Planet Earth	4	_____	CE 30320 Water Chemistry and Treatment	3
_____	CE 20200 Environmental Mineralogy	3	_____	CE 40450 Hydraulics	3
_____	CE 30300 Intro to Environmental Eng. w/Lab	4	_____	CE 40350 Environmental Microbiology	3
_____	CE 30455 Environmental Hydrology	3	_____	CE 20230 Programming	1
_____	CE 30460 Fluid Mechanics	3	_____	A&L Course (King's CORE)	3
		17	_____	A&L Course (King's CORE)	3
					16
5th Year - Fall			5th Year - Spring		
_____	CE 40330 Geochemistry	3	_____	CE 30510 Geotechnical Engineering w/ Lab	4
_____	CE 30125 Computational Methods	3	_____	CE 40320 Environmental Aquatic Chemistry	3
_____	CE 40355 Water Disease & Global Health	3	_____	CE 40420 Reactive Transport	3
_____	CE 40341 Biological Process Design	3	_____	CE 40702 Senior Design	3
_____	CE 40460 Groundwater Hydrology	4	_____	A&L Course (King's CORE)	3
_____	CE 40701 Principles of Practice	1			
		17			16