

# Environmental Science – Environmental Engineering Track

## 3+2 Engineering Dual Degree Program

### Bachelor of Science (BS.ENST(EE))

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 King's Major requirement(s) and credit(s) listed below. (3) To satisfy the King's Core requirements, a student will need to complete two (2) Core requirements at Notre Dame
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 <sup>†</sup> 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; MSB 287	(3)	
	Theology & Wisdom	THEO 150-159	(3)	
	Theology & the Good Life	THEO 160-169	(3)	
<b>Total Core Credits taken at King's</b>			<b>33</b>	

Foundational Mathematics, Science and Engineering Requirements		Credits
PHYS 113 <sup>2,CR</sup> Physics for Science & Engineering I		3
PHYS 113L Phys. for Sci. & Eng. I Lab		1
PHYS 114 <sup>PR</sup> Physics for Science & Engineering II		3
PHYS 114L <sup>PR</sup> Phys. for Sci. & Eng. II Lab		1
CHEM 113 <sup>2</sup> General Chemistry I		3
CHEM 113L General Chemistry I Lab		1
CHEM 114 <sup>PR</sup> General Chemistry II		3
CHEM 114L <sup>PR</sup> General Chemistry II Lab		1
MATH 129 Calculus I		4
MATH 130 <sup>PR</sup> Calculus II		4
MATH 231 <sup>PR</sup> Calculus III		4
MATH 237 <sup>PR</sup> Math Methods for Physical Sciences		3
MATH 361 <sup>PR</sup> Probability & Statistics I		3
PHYS 241 <sup>PR</sup> Statics		3
ENGR 150 Engineering Seminar		2
ENGR 250 <sup>PR</sup> System Design & Analysis		3
ENGR 250L <sup>PR</sup> Syst. Design & Analysis Lab		1
CS 111 Programming for Science and Engineering		3
CS 111L Programming for Science and Eng. Lab		0
<b>Other Requirements</b>		
HCE 101 Holy Cross Experience		1
<b>Total Foundational Mathematics, Science and Engineering Requirements and Other Credits</b>		<b>47</b>

Environmental Science Major Requirements		Credits
ENST 201 Environ Science I		3
ENST 201L Environ Science I Lab		1
ENST 202 <sup>PR</sup> Environ Science II		3
ENST 202L <sup>PR</sup> Environ Science II Lab		1
ENST 401F Water Quality Analysis		3
ENST 49X Env. Science Capstone		-
ENST Major Elective (6 courses total)		-
CHEM 241 <sup>PR</sup> Organic Chem I		3
CHEM 241L <sup>PR</sup> Organic Chem I Lab		1
CHEM 242 <sup>PR</sup> Organic Chem II		3
CHEM 242L <sup>PR</sup> Organic Chem II Lab		1
BIOL 113 Evolution & Diversity		-
BIOL 113L Evol & Diversity Lab		-
BIOL 210 Organisms & Ecosystems		-
BIOL 210L Organisms & Eco Lab		-
<b>Total Physics Major Credits</b>		<b>19</b>
<b>General Information</b>		
The 3+2 Environmental Science-Environmental Engineering Dual Degree Program is a collaboration with the University of Notre Dame. Students will spend three years at King's College taking mathematics, science, engineering, and general education CORE courses. Eligible students will then transfer to Notre Dame for two years to complete engineering courses in their chosen field. Upon successful completion of the program, students will receive both a B.S. in Environmental Science from King's College and a B.S. in Environmental Engineering from Notre Dame. (For more information, refer to the college catalog).		

**Total Credits earned at King's College = 99**

**Notes:**  
 The Biology requirements for the King's Environmental Science major is by taking CE 40341 Biological Process Design and CE 40350 Environmental Microbiology 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

# Environmental Science – Environmental Engineering Track

## 3+2 Dual Degree Engineering Program

### 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.

King's College			
Fall	Credits	Spring	Credits
CHEM 113 <sup>2</sup> Gen. Chem. I	3	CHEM 114 <sup>PR</sup> Gen. Chem. II	3
CHEM 113L Gen. Chem. I Lab	1	CHEM 114L <sup>PR</sup> Gen. Chem. II Lab	1
ENST 201 Environ Science I	3	ENST 202 <sup>PR</sup> Environ Science II	3
ENST 201L Environ Science I Lab	1	ENST 202L <sup>PR</sup> Environ Science II Lab	1
MATH 129 Calculus I	4	ENGR 150 Engineering Seminar	2
Core Course <sup>1</sup>	3	MATH 130 <sup>PR</sup> Calculus II	4
HCE 101 Holy Cross Experience	1	Core Course <sup>1</sup>	3
	<b>16</b>		<b>17</b>
Fall	Credits	Spring	Credits
PHYS 113 <sup>2,CR</sup> Physics for Science & Engineering I	3	PHYS 114 <sup>PR</sup> Physics for Science & Engineering II	3
PHYS 113L Phys. for Sci. & Eng. I Lab	1	PHYS 114L <sup>PR</sup> Phys. for Sci. & Eng. II Lab	1
MATH 231 <sup>PR</sup> Calculus III	4	ENGR 250 <sup>PR</sup> System Design & Analysis	3
CS 111 Programming for Sci. and Eng.	3	ENGR 250L <sup>PR</sup> Syst. Design & Analysis Lab	1
CS 111L Prog. for Sci. and Eng. Lab	0	MATH 237 <sup>PR</sup> Math Methods for Phys. Sci.	3
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
	<b>17</b>		<b>17</b>
Fall	Credits	Spring	Credits
CHEM 241 <sup>PR</sup> Organic Chem I	3	CHEM 242 <sup>PR</sup> Organic Chem II	3
CHEM 241L <sup>PR</sup> Organic Chem I Lab	1	CHEM 242L <sup>PR</sup> Organic Chem II Lab	1
MATH 361 <sup>PR</sup> Probability & Statistics I	3	ENST 401F Water Quality Analysis	3
Core Course <sup>1</sup>	3	PHYS 241 <sup>PR</sup> Statics	3
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
	<b>16</b>		<b>16</b>

**Total Credits earned at King's College = 99**

Students apply for transfer admission to the University of Notre Dame after completion of the Fall semester of their 3<sup>rd</sup> year. Students must have satisfied King's College academic guidelines, as well as the following general criteria:

- For Admission to the University of Notre Dame
  - Cumulative grade-point average (GPA) of at least 3.6 on a 4.0 scale.
  - Cumulative technical grade-point average of at least 3.6 on a 4.0 scale (all math, science and engineering courses)
  - GPA must be maintained through Spring Semester of Year 3
  - All grades that transfer to Notre Dame must be a "B" or higher, and grades for all courses taken at King's must be a C or higher
  - At least 60 credit-hours of work that can be transferred to satisfy Notre Dame engineering and general education degree requirements
- The specific admission criteria for each school will be confirmed by the 3+2 Program Director

#### Notes:

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

CHEM 241/L and CHEM 242/L will satisfy two Note Dame 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

\*Students are encouraged to take summer courses to relieve the course load pressure during this semester.

<sup>1</sup>Choose one course from each of the Core Requirements listed on the reverse side.

<sup>2</sup>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.

<sup>PR</sup> Course has a prerequisite – check college catalog.

<sup>CR</sup> Course has a co-requisite – check college catalog.