



CARROLL COLLEGE
B.S. Engineering Science: Environment and Public Health Emphasis
4-Year Plan for Admission in 2017-2018

Freshman

<u>Fall</u>		<u>Spring</u>	
ENGR/PHYS 155 Robotics	3	ENGR 104 Computer Aided Design (CAD)	3
ENGR 105 Intro to Engineering	1	CHEM 111 Essentials of Chemistry	4
BI 102 Human Biology – <i>CORE</i>	4	MA 131 Single Variable Calculus	4
MA 141 Intro to Math Modeling - <i>CORE</i>	4	TH 101 Theology - <i>CORE</i>	3
LAS 101 Alpha Seminar - <i>CORE</i>	<u>3</u>	CO 101 Communications - <i>CORE</i>	<u>3</u>
	15(4)		17(3)

Sophomore

ENGR 323 Water Quality	2	ENGR 302 Engr Mechanics I: Statics	3
MA 233 Multivariable Calculus	4	MA 334 Diff Eqs & Linear Algebra II	4
PHYS 205 Engineering Physics I	4	PHYS 206 Engineering Physics II	4
PHIL 206 Environmental Ethics* - <i>CORE</i>	3	EC 203 Project Management Econ - <i>CORE</i>	3
ENWR 102 College Composition - <i>CORE</i>	<u>4</u>	<i>CORE (Social Science)</i>	<u>3</u>
	17(2)		17(3)

Junior

ENGR/HS 329 Environment and PH	3	ENGR 326 Energy and the Environment	3
ENGR 307 Fluid Mechanics (<i>WI</i>)	3	ENGR 324 Air Quality	2
ENGR 303 Engr Mechanics II: Solids	3	ENGR/PHYS 342 Thermal Physics	3
PH 330 Public Health Methods (<i>GD or ND</i>)	3	PH 333 Public Health Theories & Practice	3
ENGR 300 Field Experience	1	HS 230 Introduction to Epidemiology	3
<i>CORE (Fine Arts)</i>	<u>3</u>	MA 314 Probability and Statistics	<u>2</u>
	16(10)		16(8)

Senior

ENGR 411 Senior Design Project I	2	ENGR 424 Groundwater Modeling	3
ENGR 401 Hydraulics	3	ENGR 412 Senior Design Project II	2
ENGR 327 Land & Stream Restoration	3	ENGR 405 Water Wastewater	4
ENGR 325 Hydrogeology	3	<i>CORE (History)</i>	3
<i>CORE (Theology)</i>	3	<i>CORE (Literature)</i>	<u>3</u>
<i>CORE (Philosophy)</i>	<u>3</u>		15(9)
	17(11)		

130 Credits Total (50 Engineering Credits)

Notes:

*PHIL 206 is preferred but any philosophy course in ethics is acceptable. PHIL 206 offered in spring of even numbered years.

ENGR 300 will be a field experience where students have a defined problem; they collect data, do analysis, and prepare a written report. This can be incorporated with study abroad experiences or with participation in Engineers Without Borders type experiences.

HS 335 Health Policy, Management and Issues: National and Global is strongly recommended to better understand international issues.

The CORE requirements are that each student shall have a Global Diversity (GD) course or experience and a National Diversity (ND) course or experience. In addition, each student must complete two Writing Intensive (WI) courses while at Carroll, one inside the major and the other outside the major. These may be met by courses the student is taking to fulfill other CORE requirements. This four-year plan assumes that GD, ND, and WI requirements will be met with courses that also fulfill other CORE requirements.

If there is room in your schedule because of transfer, summer, or advanced placement credits, CS 110 Java Programming is strongly recommended.