ENVIRONMENTAL ENGINEERING DEGREE

Students must also complete the Undergraduate Registration Requirement (https://catalogs.northwestern.edu/undergraduate/requirements-policies/undergraduate-registration-requirement/) and the degree requirements of their home school.

Requirements (48 units)

Core Courses (27 units)[1]

Course	Title
4 mathematics courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
4 units of basic science:	
PHYSICS 135-2 & PHYSICS 136-3	General Physics and General Physics Laboratory
or PHYSICS 125-2 & PHYSICS 126-2	General Physics for ISP and Physics Laboratory for ISP
or PHYSICS 140-2 & PHYSICS 136-2	Fundamentals of Physics and General Physics Laboratory
CHEM 131-0 & CHEM 132-0 & CHEM 141-0 & CHEM 142-0	Fundamentals of Chemistry I and Fundamentals of Chemistry II and Fundamentals of Chemistry Laboratory I and Fundamentals of Chemistry Laboratory II
or CHEM 151-0 & CHEM 152-0 & CHEM 161-0 & CHEM 162-0	General Chemistry I and General Chemistry II and General Chemistry Laboratory I and General Chemistry Laboratory II
or CHEM 171-0 & CHEM 172-0 & CHEM 181-0 & CHEM 182-0	Advanced General Inorganic Chemistry and Advanced General Physical Chemistry and Advanced General Inorganic Chemistry Laboratory and Advanced General Physical Chemistry Laboratory
4 engineering analysis and computer proficiency courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
3 design and communications courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
7 social sciences/humanities courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
5 unrestricted electives (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	

Major Program (21 units)

Course	Title
3 gateway courses	
CIV_ENV 201-0	Engineering Possibilities: Decision Science in the Age of Smart Technologies
CIV_ENV 202-0	Biological and Ecological Principles
CIV_ENV 203-0	Earth in the Anthropocene
5 basic engineering courses	
BMD_ENG 250-0	Thermodynamics
or CHEM_ENG 211-0	Thermodynamics
CIV_ENV 304-0	Civil and Environmental Engineering Systems Analysis
CIV_ENV 306-0	Uncertainty Analysis
MAT_SCI 201-0	Introduction to Materials Science and Engineering Principles
MECH_ENG 241-0	Fluid Mechanics I
8 environmental engineering core courses	
CHEM 215-1	Organic Chemistry I
CIV_ENV 260-0	Environmental Systems and Processes
CIV_ENV 340-0	Hydraulics and Hydrology
CIV_ENV 361-1	Environmental Microbiology
CIV_ENV 346-0	Ecohydrology
CIV_ENV 364-0	Sustainable Water Systems
CIV_ENV 365-0	Environmental Laboratory
CIV_ENV 367-0	Chemical Processes in Aquatic Systems
2 capstone design courses (0.5 units each)	
CIV_ENV 382-1 & CIV_ENV 382-2	Capstone Design I and Capstone Design II
4 technical elective courses [2]	
1 professional development course (0.34 units) [3]	
CIV_ENV 301-1	Professional Development Seminar I

1 See general requirements (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext) for details.

2 From an approved list (available in Undergraduate CIV_ENV Handbook) in engineering, mathematics, or science; at least 3 units must be 100% engineering topic; may include only 1 unit of CIV_ENV 399-0 Projects; no 399 course from another department is accepted; no course may be taken P/N.

3 0.34 units may count toward unrestricted electives.