

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 (32 units)¹

Course	Title
4 mathematics courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
4 engineering analysis and computer proficiency courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
4 units of basic science:	
PHYSICS 135-2 & PHYSICS 136-3 or PHYSICS 125-2 & PHYSICS 126-2 or PHYSICS 140-2 & PHYSICS 136-2	General Physics and General Physics Laboratory General Physics for ISP and Physics for ISP Laboratory Fundamentals of Physics and General Physics Laboratory
CHEM 131-0 & CHEM 132-0 & CHEM 141-0 & CHEM 142-0 or CHEM 151-0 & CHEM 152-0 & CHEM 161-0 & CHEM 162-0 or CHEM 171-0 & CHEM 172-0 & CHEM 181-0 & CHEM 182-0	General Chemistry 1 and General Chemistry 2 and General Chemistry Laboratory 1 and General Chemistry Laboratory 2 Accelerated General Chemistry 1 and Accelerated General Chemistry 2 and Accelerated General Chemistry Laboratory 1 and Accelerated General Chemistry Laboratory 2 Advanced General Inorganic Chemistry and Advanced General Physical Chemistry and Advanced General Inorganic Chemistry Laboratory and Advanced General Physical Chemistry Laboratory
3 design and communications courses (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/#requirementstext)	
5 basic engineering courses:	
CIV_ENV 304-0	Civil and Environmental Engineering Systems Analysis
BMD_ENG 250-0 or CHEM_ENG 211-0	Thermodynamics Thermodynamics
MECH_ENG 241-0	Fluid Mechanics I
CIV_ENV 306-0	Uncertainty Analysis
MAT_SCI 201-0	Introduction to Materials
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)	

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

Major Program (16 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
9 Environmental Engineering Core Courses	
CHEM 210-1	Organic Chemistry
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
CIV_ENV 382-1	Capstone Design I
CIV_ENV 382-2	Capstone Design II
4 Technical Electives ¹	
Professional Development ²	
CIV_ENV 301-1	Professional Development Seminar I

¹ 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.

² 0.34 units may count toward unrestricted electives.