

Environmental Engineering

The Bachelor of Science degree in Environmental Engineering is intended to address the demands of society for classically trained engineers with focus on environmental, municipal and industrial processes and strengths in water chemistry, fluid mechanics and hydraulics.

Freshman Year	Credits	
	Fall	Spring
CHMY 141 - College Chemistry I & CHMY 142 - College Chemistry I Lab *	4	
M 171Q - Calculus I* or M 181Q - Honors Calculus I	4	
EENV 102 - Introduction to Environmental Engineering Design and Sustainability	3	
ECIV 101 - Intro To Civil Engineering	1	
US 101US - First Year Seminar or CLS 101US - Knowledge and Community or BGEN 104US - Business & Entrepreneurship Fundamentals Seminar or LS 101US - Interdisciplinary Ways of Knowing or COMX 111US - Introduction to Public Speaking or HLD 121US - Leadership Foundations or HONR 201US - Texts and Critics: Knowledge & Imagination I or CLS 201US - Knowledge and Community Take CLS 201US if > 30 earned credits.	3	
CHMY 143 - College Chemistry II & CHMY 144 - College Chemistry II Lab		4
M 172 - Calculus II		4
PHSX 220 - Physics I with Calculus*		4
WRIT 101W - College Writing I or WRIT 201 - College Writing II or WRIT 221 - Intermediate Tech Writing		3
University Core (IA/RA, IH, IS, or D)		3
Year Total:	15	18

Sophomore Year	Credits	
	Fall	Spring
ECIV 231 - Introduction to Engineering Hydrology	3	
ECHM 201 - Material and Energy Balances for Chemical & Biological Processes	4	
EGEN 201 - Engineering Mechanics-Statics*	3	
M 273 - Multivariable Calculus	4	
ENSC 245IN - Soils or ECIV 320 - Geotechnical Engineering	3	
EENV 202 - Sustainable Waste Management		3
EENV 240 - Chemistry for Environmental Engineers		3
ECIV 202 - Applied Analysis		1
DDSN 131 - Introduction to Drafting and Design		3
M 274 - Introduction to Differential Equation		4
University Core (IA/RA, IH, IS, or D)		3
Year Total:	17	17

Junior Year	Credits	
	Fall	Spring
BIOB 160 - Principles of Living Systems or BIOB 170IN - Principles of Biological Diversity	4	

EENV 341 - Physical and Chemical Treatment Processes**	4	
ECIV 337 - Civil Engineering Fluid Mechanics**	3	
EGEN 350 - Applied Engineering Data Analysis or STAT 332 - Statistics for Scientists and Engineers	2	
University Core (IA/RA, IH, IS, or D)	3	
EENV 387 - Environmental Laws and Regulations**		3
EENV 342 - Biological Treatment Processes**		4
ECIV 333 - Water Resources Engineering**		4
ECIV 308 - Construction Practice**		3
EGEN 310R - Multidisciplinary Engineering Design**		3
Year Total:	16	17
Senior Year	Credits	
	Fall	Spring
EENV 443 - Air Pollution Control	3	
Engineering Tools Elective	3	
Water Resources Elective	3	
EENV 489R - Environmental Engineering Design I**	2	
EGEN 330 - Business Fundamentals for Technical Professionals	3	
EENV 434 - Groundwater Supply/Remediation		3
Environmental Engineering Elective		3
Professional Elective**		3
EENV 499R - Environmental Engineering Design II**		2
EGEN 488 - Fundamentals of Engineering Exam**		0
University Core (IA/RA, IH, IS, or D)		3
Year Total:	14	14
Total Program Credits:		128

* Key Courses

** Advanced Courses

Additional Requirements: A maximum of 4 credits total from Individual Problems, Internships, and Undergraduate Research may be counted toward professional electives. Students must successfully complete all key courses (*) prior to taking any advanced courses (**) which includes professional electives. A maximum of 3 credit-hours may be included from a completed MSU minor, a prior or concurrent BS/BA degree in another major, or courses in a completed MSU Honors program, or Internship (max. 3 credits). A student may petition to include other senior- or graduate-level courses consistent with the degree program but not listed here (requires Academic Advisor and Department Head approval).

Professional Electives

Water Resources Electives

Take at least one of the following:

ECIV 431	Open Channel Hydraulics
ECIV 435	Closed-Conduit Hydraulics
EENV 432	Advanced Engineering Hydrology

Environmental Engineering Electives

Take at least one of the following:

EENV 436	Stormwater Management & Engineering
EENV 441	Natural Treatment Systems
EENV 445	Hazardous Waste Treatment

Engineering Tools Electives

Take at least one of the following:

DDSN 245	Civil Drafting
GPHY 284	Intro to GIS Science & Cartog
EENV 498	Internship
SRVY 230	Intro to Surveying for Engineers

Professional Electives

BIOE 370	General Ecology
BIOE 428	Freshwater Ecology
BIOM 430	Applied and Environmental Microbiology
BIOM 452	Soil & Environmntl Microbiology
ECHM 405	Sustainable Energy
ECIV 492	Independent Study
EENV 490R	Undergraduate Research
EGEN 325	Engineering Economic Analysis
EIND 425	Technology Entrepreneurship
EIND 477	Quality Management Systems
EIND 434	Project Management for Engineers
ENSC 353	Environmental Biogeochemistry
ENSC 407	Environmental Risk Assessment
ENSC 448	Stream Restoration Ecology
ENSC 460	Soil Remediation
ENSC 461	Restoration Ecology
GPHY 384	Adv GIS and Spatial Analysis