

## Environmental & Ecological Engineering

### Emphasis Electives- Need 9 credits

Course		Cr	Semester	Pre-reqs	Others	Lib
BBE 4753	Air Quality and Pollution Control E.	3	Spring	BBE 3012, 3043, UD		
CEGE 3202	Surveying and Mapping	3	F	MATH 1272 and CSE		
CEGE 3402W	Civil Engineering Materials	3	F, S	AEM 3031 or <b>(BBE 2001+ BBE 3043)</b>		WI
CEGE 4351	Groundwater Mechanics	3	F	CEGE 3502, UD, CEGE 3101 or instr <b>(or BBE 2003 + BBE 3012)</b>		
CEGE 4352	Groundwater Modeling	3	S	upper div CSE or grad student or instr consent		
CEGE 4502	Water and Wastewater Treatment	3	F, S	CEGE 3501 or CHEN 2001 <b>(or BBE 3033)</b>		
CEGE 4511	Hydraulic Structures	3	Spring	CEGE 4501 or <b>(BBE 5513)</b>		
CEGE 4512	Open Channel Hydraulics	4	F, S	CSE, CEGE 3502, or instr		
CEGE 4561	Solid Hazardous Wastes	3	Spring	CSE, CHEM 1022, and CEGE 3501, or instr cons.		
CEGE 4562	Environmental Remediation Techn.	3	Spring	[CEGE 3501 and CEGE 4501], or instr consent		
CEGE 5511	Urban Hydrology & Water Qualit 4;	4	Fall	CEGE 4501 or <b>BBE 5513</b> , upper division CSE		
IE 5513	Engineering Safety	4	F	Upper div CSE		
IE 5541 or CEGE 4101W	Project Mangement or Project Mgmt & Engrg Economics	4/ 3	F,S	Upper div CSE		

### Technical Electives- Need 9 credits, at least 1 course from (Biol 3007W, 3807, EEB 3001, 5601)

Course		Cr	Semester	Pre-reqs	Others	Lib
BIOL 3007W	Plant, Algal, and Fungal Diversity & Adaptation	4	Fall	One semester college biology, and CHEM 1021		
BIOL 3807	Ecology	4	Summer	college boil., MATH 1271		
EEB 3001	Ecology and Society	3	F,S, Su	Junior or senior		
EEB 5601	Limnology	3	Fall	Grad student or instr cons.		

### Remaining technical elective can be selected from:

Course		Cr	Semester	Pre-reqs	Others	Lib
BBE 3396	Industry Assignment	1	F,S			
BBE 4608	Environmental and Industrial Microbiology	3	Fall	[BIOL 1001 or BIOL 1009], and CHEM 1011		
BBE 4900	Intern Reports	2	F,S,Su	student in BBE	Repeat allowed	
CEGE 3111	CADD for Civil Eng.	2	F,S	CEGE 3201		
CEGE 5571	Acara Global Venture Design: Grand Chall.	3-4	F, S	instr consent	Repeat allowed	GP
CEGE 5572	Acara Social Venture Launchpad: Ideas to Impact	1-2	Spring	instr consent	Repeat allowed	
ESPM 3111	Hydrology & Water Quality Field Methods	3	Spring			
ESPM 3612W	Soil and Environmental Biology	4	Fall	Biol 1009 , Chem 1021 SOIL 2125 recommended		
FNRM 3131	Geographical Information Systems (GIS) for Natural Resources	4	F, S	Sophomore, junior, senior, or UHP freshman		TS
SOIL 3416	Plant Nutrients in the Environment	3	Spring	SOIL 2125		
SOIL 4111	Introduction to Precision Agriculture	3	Spring	Basic sciences, statistics, soil, agronomy		