

Civil Engineering (PhD) - Environmental Engineering Concentration

* Note: Courses with Subject Codes CUGW are offered by George Washington University through the university consortium.

Program: Civil Engineering

Type: PhD

Core Courses

Item #	Title	Credits
	CIEG-511 or CUGW-CE6501	3
BIOL-424	Environmental Microbiology	3
	CIEG-502 or CUGW-CE6502	3
CIEG-501	Environmental Biological Processes	3
CIEG-557	Advanced Hydrology	3
CHEG-412	Transport Phenomena	3
	Sub-Total Credits	18

Major Courses (Electives)

Item #	Title	Credits
CUGW CE-6505	Environmental Impact Assessment	3
CUGW CE-6509	Introduction to Hazardous Waste	3
CUGW CE-6601	Open Channel Flow	3
CHEM-251	General Biochemistry	3
CIEG-553	Environmental Engineering Project Research	3
CIEG-626	Advanced Research in Environmental Engineering	3
	Sub-Total Credits	18

Dissertation Research

*CIEG-608 Civil & Environmental Engineering Dissertation Research

Note: A maximum of 9 Dissertation Research credits may be taken per semester. In addition, a maximum of 9 Dissertation Research credits may be counted toward the 72 required for program completion.

Item #	Title	Credits
CIEG-608	Civil & Environmental Engineering Dissertation Research	9
	Sub-Total Credits	9

Additional Courses

Transferred courses from MS or ME or 8 additional Electives (3 Credits Each; See Electives List Below).

* Note: Courses with Subject Codes CUGW are offered by George Washington University through the university consortium.

Item #	Title	Credits
CIEG-511	Environmental Chemistry	3
BIOL-424	Environmental Microbiology	3
CIEG-502	Physical/Chemical Process for Water Treatment	3
CIEG-501	Environmental Biological Processes	3
CIEG-557	Advanced Hydrology	3
CHEG-412	Transport Phenomena	3
CHEG-412	Transport Phenomena	3
CUGW CE-6505	Environmental Impact Assessment	3
CUGW CE-6509	Introduction to Hazardous Waste	3
CUGW CE-6601	Open Channel Flow	3
CHEM-251	General Biochemistry	3
BIOG-415	Molecular Genetics	3
	Sub-Total Credits	27
	Total credits:	72