

# NORTHWESTERN - MASTER OF SCIENCE: PROGRAM IN ENVIRONMENTAL ENGINEERING & SCIENCE

## 2021-2022

The MS in EES requires 12 course units in addition to the Environmental Seminar Series – CIV ENV 516. 9 Courses constitute the core and are required, 3 are graduate elective courses that can be taken from other Departments/Programs after approval.

For the students with a BS in Environmental Engineering from Northwestern, 3 of their undergraduate courses, denoted by \*, count towards the MS degree. As a result, they need to follow 9 additional courses. For other BS degrees, 3 graduate level courses can be selected for electives.

	1 <sup>st</sup> Quarter/Fall	2 <sup>nd</sup> Quarter/Winter	3 <sup>rd</sup> Quarter/Spring	Optional 4 <sup>th</sup> Quarter/Summer
<b>4 Courses/Quarter</b> and the <b>EES seminar series</b>	Environmental Microbiology* (Marcelino) CIV ENV 361-1	Environmental Laboratory* (Gaillard) CIV ENV 365 <i>Or: CIV ENV 361-2, 317, 447</i>	Computational Chemodynamics (Gaillard) CIV ENV 448	Sustainability: The City (Gray) CIV ENV 368
	Chemical Processes in Aquatic Systems* (Gaillard) CIV ENV 367	Physical-Chemical Processes in Environmental Systems (Clark) CIV ENV 444	Environmental Biotechnology for Resource Recovery (Wells) CIV ENV 442	Environmental Law and Policy (Harley) CIV ENV 303
	Environmental Transport Processes (Packman) CIV ENV 440	Ecohydrology (Packman) CIV ENV 346 <i>Or: CIV ENV 317, 447 for BS-MS</i>	Emerging Organic Contaminants (Hartmann) CIV ENV 370	
	4 <sup>th</sup> Course from <b>courses</b> below or unrestricted electives	4 <sup>th</sup> Course from <b>courses</b> below or unrestricted electives	4 <sup>th</sup> Course from <b>courses</b> below or unrestricted electives	
	<b>Environmental Engineering Science Seminar Series (CIV ENV 516-1,2,3)</b>			<b>CIV ENV 516-1</b>
<b>Technical Electives</b> Choose 1 additional Course per Quarter	Sustainability: The City (Gray) CIV ENV 368	Biogeochemistry (Blair) CIV ENV 317	Water in Arid Lands: Israel & the Middle East (Packman) CIV ENV 395- 0- 25	
	Environmental Law and Policy (Harley) CIV ENV 303	Public & Environ. Health (Marcelino) CIV ENV 361-2	Climate and Energy Law & Policy (Harley) CIV ENV 395- 0- 23	
	<i><b>EARTH</b> courses: 353, 373, 450 or CIV ENV 499</i>	Molecular Microbiology (Hartmann) CIV ENV 447		
<b>MS Thesis</b> <i>(Typical path)</i>	<i>Finding an advisor</i>	Research Project - CIV ENV 499	Research Project CIV ENV 590	Research Project CIV ENV 590 or TGS 512 to continue