

Effective Fall 2021

2 Year MS & MSE Plan		Requirement*	Notes	Course #	Credits	Term
Engineering	Civil Engineering Core	15CR from the Civil and Environmental Engineering Department	Required: CEE 520 CEE 521 CEE 522	CEE 520		
				CEE 521		
				CEE 522		
		Minimum of 2 additional CEE courses in Environmental and Water Resource Engineering	See List A for sample of approved courses (next page)			
School for Environment and Sustainability	AS CORE	9-12CR in Aquatic Sciences (courses on next page)	One course each from: 1) Organismal Biology 2) Ecosystem Ecology 3) Ecosystem Modeling			
	EAS Core	EAS 509 (Natural Systems Core) EAS 510(Social Systems Core) or 3CR from the <u>*Social Systems Distribution list.</u>				
		*IAMS Requirement Two courses; 3CR minimum				
	Analytics	2 Analytics courses	EAS 538 or approved alternate and one additional Analytics course			
	Capstone*	Students are not expected to complete a Capstone, but could petition to do a thesis/practicum or project*	At most 6 credit hours of EAS 701 (Master's Project) or EAS 702 (Master's Practicum) or At most 12 credits of EAS 700 (Master's Thesis)			
	TOTALS	Total "EAS" credits - 25				
TOTALS	Total "CEE" credits - 18					
	54 credits total for both					

*IAMS and Social Systems Distribution courses can double-count with Core requirements but we do not double-count the actual credits.

A) Civil Engineering

Sample of Environmental and Water Resources courses (more available, see advisor):

CEE 524 (3)	Environmental Turbulence (W)
CEE 527 (3)	Coastal Hydraulics (F)
CEE 580 (3)	Physicochemical Processes in Environmental Engineering (W)
CEE 581 (3)	Aquatic Chemistry (W)
CEE 582 (3)	Environmental Microbiology (F)
CEE 586/EAS 557 (3)	Industrial Ecology (W)
CEE 590 (3)	Stream, Lake, and Estuary Analysis
CEE 592 (3)	Biological Processes in Environmental Engineering (W)
CEE 624 (3)	Restoration Fundamentals and Practice in Aquatic Systems (F)

Natural Resources and Environment Aquatic Sciences

1) Organismal Biology

Choose one:

- EAS 409 – Ecology of Fishes OR
- EEB 486 – Biology & Ecology of Fishes (UMBS)
- EAS 422 – Biology of Fishes
- EEB 457 – Algae in Freshwater Systems
- EAS 516 – Aquatic Entomology

2) Ecosystem Ecology

Choose one:

- EAS 476 – Ecosystem Ecology
- EEB 483 – Limnology
- EAS 520 – Fluvial Ecosystems

3) Ecosystem Modeling

Choose one:

- EAS 534 – GIS and Landscape Modeling
- EEB 401 – Interrogating Data with Models

Integrated Analytic Methods and Skills Requirement

Students are required, at some point during their time enrolled in the program, to take 2 courses composing at least 3 credits from a faculty-approved list of courses that focus on integrative analytic methods and skills.