

## MS Environmental Sciences Water Systems Specialization 12 Credit Hours

Student Name	Student ID
Faculty Advisor	

Water resources are among the most imperiled requirements for life. Streams, rivers, lakes, and groundwater are important sources of freshwater, but face mounting threats from increasing demand, the severe drought and flooding that will accompany global climate change, and polluted rural and urban runoff. Hence, students in the Water Systems specialization pursue interdisciplinary study of water processes across topics in surface and groundwater hydrology, fluvial geomorphology, water quality, and contaminant fate/transport. The curriculum illuminates complex interactions among the physical, biological, and chemical components of aquatic systems using theory and hands-on training applied to field, laboratory, and modeling methods. This specialization emphasizes natural science perspectives, but includes linkages to engineering and geologic approaches. Our graduates are prepared for careers in government, private consulting, research, or non-governmental organizations that are focused on understanding, protecting, and restoring water systems for future generations.

	Core Courses (take both):			
	ENVS 5280	Environmental Hydrology	4	
	ENVS 5410	Aquatic Chemistry	3	
Elective Courses (choose 2):				
	CVEN 5333	Surface Water Hydrology	3	
	CVEN 5334	Groundwater Hydrology	3	
	CVEN 5335	Vadose Zone Hydrology	3	
	CVEN 5401	Intro to Environmental Engineering	3	
	ENVS 5305	Water Quality & Resources	3	
	ENVS 5380	Anthropocene Futures	3	
	ENVS 5780	Aquatic Ecology	3	
	ENVS 5xxx	Environmental Geography: The Food-Energy-Water Nexus along the Front Range [3]	3	
	GEOG 5240	Applied Geomorphology	3	
	GEOG 5251	Fluvial Geomorphology	3	
	GEOG 5270	Glacial Geomorphology	3	
	GEOG 5990	Travel Study: France (Landscapes in the Rhône Valley: From Archaen to the Anthropocene)	4	

Curriculum for Fall 2021 forward. Last Updated: 05.11.21 Specialization Advisors: Anne Chin & Thomas Duster