



Course	Course Title	Credits
Social Science Foundations		9
<i>Required Course:</i>		
SS 3313	Sustainability Science	3
<i>Choose 2:</i>		
SS 4120	Sustainable Development & Communities	3
SS 4700	Communities & Research	3
SS 5420	Memory & Heritage	3
SS 5530	Deindustrialization & the Urban Environment	3
SS 5720	Social Thought, Contemporary Issues	3
SS 5900	Heritage Management	3

Socio-Ecological and Socio-Technological Systems		9
<i>Earned through either Certificate or Coursework</i>		
<i>Certificate Option:</i>		
Natural Hazards & Disaster Risk Reduction*		
Natural Resource & Environmental Economics		
Resilient Water Infrastructure*		
Water, Sanitation, & Hygiene Engineering (WASH)*		
<i>OR Coursework Option: Choose 3</i>		
SS 4200	Environmental Anthropology	3
SS 5400	Sociology of the Environment	3
SS 5550	Global Environmental History	3
SS 5325	Water Policy, History, & Governance	3
SS 5551	Global Industrial History	3
SS 5500	History of Technology	3
BL 4120	Environmental Remediation*	3
GE 4220	Mining Systems & the Environment*	3
FW 5421	Climate Change & Management in Great Lakes Forested Systems	3
FW 5371	Snow Hydrology	3
FW 5369	Hydrology & Watershed Management	3
BL 5421	Lake Superior Exploration	3
BL 5447	Stream Ecology	3
BL 5451	Advanced Ecology	3
GE 5150	Advanced Natural Hazards	3
CEE 4410	Transportation Planning	3
CEE 5666	Water Resources Planning & Management*	3
FW 4400	Urban Forestry	3
FW 5115	Restoration Ecology	3
EC 5650	Market Failure & Environment*	3
GE 5660	Social Dimensions of Natural Hazards	3
UN 5400	Climate Science & Policy	3

Course	Course Title	Credits
Applied Research & Inquiry Skills		9
<i>Earned through either Certificate or Coursework</i>		
<i>Certificate Option:</i>		
Public Policy		
Data Science Foundations		
Geoinformatics*		
Geospatial Data Science & Technology		
Engineering Sustainability & Resilience		
<i>OR Coursework Option: Choose 3</i>		
SS 4211	Ethnographic Methods	3
SS 5001	Advanced Social Science Methods	3
SS 5003	Survey Methods	3
SS 5004	Social Statistics	3
SS 5005	Introduction to Agent Based Modeling	3
SS 5049	GIS for Graduate Researchers	3
SS 5050	Advanced GIS Methods & Projects*	3
SS 5700	Archaeological Field Methods	3
SS 5800	Documentation of Historic Structures	3
SS 6002	Research Design	3

Professional Development Capstone		3
<i>Choose 1</i>		
SS 4000	Independent Study	3
SS 5015	Cultural/Environmental Office of Surface Mining VISTA Field Service Internship	3
SS 5990	Graduate Research	3
SS 5010	Directed Study	3
SS 4920	Internship Experience	3
SS 4921	Washington Internship-Professional Practicum	3

*Check pre-requisites / permissions