Environmental and Sustainability Sciences and Landscape Architecture, BS

The Department of Marine and Environmental Sciences and the program in landscape architecture provide an education in basic environmental and sustainability sciences and landscape-architecture-related disciplines. This combined major provides students the opportunity to obtain the fundamental scientific background and practical training to tackle environmental and landscape-related issues. The program seeks to prepare students for advanced studies or careers in fields of urban planning, urban design, sustainable development, environmental consulting, and/or other fields focusing on the interactions among landscapes, the built environment, human societies, and overall climate impacts.

Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

Universitywide Requirements

All undergraduate students are required to complete the Universitywide Requirements (http://catalog.northeastern.edu/undergraduate/university-academics/university-wide-requirements/).

NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (http://catalog.northeastern.edu/undergraduate/university-academics/nupath/).

Environmental and Sustainability Sciences Requirements

Code	Title	Hours
Environmental and Sustainability Sciences Required Courses		
Core Courses		
EEMB 2302 and EEMB 2303	Ecology and Lab for EEMB 2302	5
ENVR 1200 and ENVR 1201	Dynamic Earth and Lab for ENVR 1200	4
or ENVR 2200	Earth's Changing Cycles	
ENVR 1400 and ENVR 1401	Foundations in Environmental and Sustainability Sciences and Lab for ENVR 1400	5
ENVR 2515	Sustainable Development	4
Complete one course from each category:		
Skills		*4-5*
ENVR 1500 and ENVR 1501	Introduction to Environmental, Social, and Biological Data and Lab for ENVR 1500	
ENVR 3300 and ENVR 3301	Geographic Information Systems and Lab for ENVR 3300	
Earth, Oceans, and Environmental Change		*4-5*
ENVR 2310 and ENVR 2311	Earth Materials and Lab for ENVR 2310	
ENVR 3125	Global Oceanic Change	
ENVR 3600	Oceanography	
ENVR 5150	Climate and Atmospheric Change	
ENVR 5600	Coastal Processes, Adaptation, and Resilience	
ENVR 5670	Global Biogeochemistry	
Conservation, Restoration, and Management		*4*
EEMB 2400	Introduction to Evolution	
EEMB 3460	Conservation Biology	
EEMB 4001	Landscape and Restoration Ecology	
ENVR 5220	Ecosystem-Based Management	
ENVR 5700	Streams and Watershed Ecology	
Sustainable Planning and Development		*4*
ENVR 3150	Food Security and Sustainability	

ENVR 3200	Water Resources	
ENVR 5210	Environmental Planning	
ENVR 5350	Sustainable Energy and Climate Solutions	
ENVR 5450	Applied Social-Ecological Systems Modeling	
ENVR 5800	Climate Adaptation and Nature-Based Solutions	
Environment and Society		*4*
ENVR 5750	Urban Ecology	
POLS 2395	Environmental Politics and Policy	
PPUA 5260	Ecological Economics	
SOCL 2485	Environment, Technology, and Society	

Landscape Architecture Requirements

Code	Title	Hours
ARCH 1110	Fundamental Architectural Representation	4
ARCH 1120	Fundamental Architectural Design	6
LARC 2130	Sustainable Urban Site Design	6
LARC 2230	Introduction to Sustainable Site Planning and Design	4
LARC 2330	Cities, Landscape, and Modern Culture	4
LARC 2340	Cities, Landscape, and Contemporary Culture	4
LARC 2430	Plants, People, and Landscape Change	4

Landscape Architecture Electives

Code	Title	Hours
Complete three of the following:		12-14
ARCH 3351	Architecture Topics Abroad: Theory	
ARCH 3352	Architecture Topics Abroad: Drawing	
ARCH 3370	Advanced Topics in Architectural History	
ARCH 3450	Advanced Architectural Communication	
ARCH 4850	Urban and Architectural History Abroad	
LARC 2240	Sustainable Site Construction and Detailing	
LARC 2440	Planting Design	
LARC 3170	Landscape Planning and Urbanism Studio	
LARC 5210	Landscape Ecology	
LARC 5220	Sustainable Landscape Practices	
LARC 5310	Urban Landscape Seminar	
SUEN 6210	Implementation and Visualization for Urban Environments 1	
SUEN 6220	Implementation and Visualization for Urban Environments 2	

Capstone/Integrative Course

Code	Title	Hours
Complete one of the following:		4
ENVR 4997	Senior Thesis	
LARC 5120	Comprehensive Design Studio	
LARC 5210	Landscape Ecology	
ENVR 4050	Solving Emerging Environmental Challenges through Capstone	

Environmental and Sustainability Sciences and Landscape Architecture Major Credit Requirement

Complete a minimum of 84 semester hours in the major.

Program Requirements

132 total semester hours required

Plan of Study
Four-Years, Two Co-ops

Year 1

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
LARC 2430	4	ARCH 1110	4	Elective	4	Elective	4
ENVR 1400 and ENVR 1401	5	ARCH 1120	6	ENGW 1111	4	Elective	4
ENVR 2200	4	EEMB 2302 and EEMB 2303	5				
Elective	4	EEAM 2000	1				
	17		**16**		**8**		**8**

Year 2

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
LARC 2130	6	LARC 2340	4	Elective	4	Co-op	0
LARC 2230	4	ENVR 3300 and ENVR 3301	5	Elective	4		
LARC 2330	4	LARC elective	4				
ENVR elective	4	Elective	4				
	18		**17**		**8**		**0**

Year 3

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op	0	ENVR elective	4	ENGW 3314	4	Co-op	0
		ENVR elective	4	Elective	4		
		ENVR elective	4				
		LARC elective	4				
	0		**16**		**8**		**0**

Year 4

Fall	Hours	Spring	Hours
Co-op	0	ENVR 2515	4
		Capstone	4
		ENVR elective	4
		LARC elective	4
	0		**16**

Total Hours: 132