

# Human Behavior and Sustainability Sciences, PhD

## Overview

Admissions to this program begin Fall 2024.

The persistent failure to integrate the social, behavioral, and cognitive sciences with ecological and geophysical sciences is a critical friction point reducing the viability and effectiveness of sustainability solutions. Therefore, a degree program that combines training in psychology with the ecological and geophysical sciences will produce boundary-breaking scholars who can accelerate sustainability solutions that are robustly informed by the results of scientific research. The proposed curriculum integrates degree requirements from existing PhD programs in psychology and marine and environmental sciences (sustainability sciences concentration), with the addition of a set of specialized core courses and integrated cross-disciplinary research training. It also allows students broad latitude in designing their specialty within the parameters of the program.

The PhD in Human Behavior and Sustainability Sciences program provides students with the following advanced coursework and training. Students must pass two examinations during the course of their graduate studies to achieve candidacy:

1. A qualifying paper that the student will write and present to their dissertation committee.
2. A proposal defense presented to the student's dissertation committee that explains the research areas that the student proposes to work in.

At the end of the program, students will defend their written dissertation, which consists of a public seminar, public question-and-answer period, and private defense of their work to their dissertation committee. Dissertation committees consist of at least four Northeastern University faculty and one external faculty member.

A cumulative grade-point average of 3.000 is required for graduation. The PhD will be awarded following submission of a dissertation, approved by the candidate's dissertation committee, to the College of Science.

## Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

### Milestones

Annual review  
 Dissertation committee  
 Qualifying paper and presentation  
 Dissertation proposal and presentation  
 Candidacy  
 Dissertation/dissertation defense  
 Teaching experience

### Core Requirements

Code	Title	Hours
EEMB 7103	Seminar in Sustainability Sciences	2
EEMB 8103	Readings in Sustainability Sciences	2
ENVR 5450	Applied Social-Ecological Systems Modeling	4
PSYC 5180	Quantitative Methods 1	3
PSYC 5181	Quantitative Methods 2	3
PSYC 7210	Seminar in Cognition	3

### Research

Code	Title	Hours
Complete two semesters from the following:		6
PSYC 8401 or EEMB 8984	Research Project Research	

### Electives

Code	Title	Hours
Complete 8 semester hours from the following:		8
<b>Psychology Breadth Courses</b>		
PSYC 5100	Proseminar in Psycholinguistics	
PSYC 5110	Proseminar in Cognition	
PSYC 5120	Proseminar in Sensation	

PSYC 5130	Proseminar in Perception
PSYC 5140	Proseminar in Biology of Behavior
PSYC 5150	Proseminar in Clinical Neuroscience
PSYC 5160	Proseminar in Personality
PSYC 5170	Proseminar in Social Psychology

**Sustainability Breadth Courses**

EEMB 5130	Population Dynamics
EEMB 5506	Biology and Ecology of Fishes
EEMB 5516 and EEMB 5517	Oceanography and Lab for EEMB 5516
EEMB 5518	Ocean and Coastal Processes
EEMB 5522	Experimental Design Marine Ecology
ENVR 5115	Advanced Topics in Environmental Geology
ENVR 5150	Climate and Atmospheric Change
ENVR 5260	Geographical Information Systems
ENVR 5350	Sustainable Energy and Climate Solutions
ENVR 5600	Coastal Processes, Adaptation, and Resilience
ENVR 5700	Streams and Watershed Ecology
ENVR 5750	Urban Ecology
ENVR 5800	Climate Adaptation and Nature-Based Solutions
ENVR 6150	Food Security and Sustainability
ENVR 6500 and ENVR 6501	Biostatistics and Lab for ENVR 6500
INSH 5301	Introduction to Computational Statistics
INSH 5302	Information Design and Visual Analytics
INSH 6300	Research Methods in the Social Sciences
INSH 6406	Analyzing Complex Digitized Data
INTL 5100	Climate and Development
PHTH 5214	Environmental Health
PPUA 5246	Participatory Modeling for Collaborative Decision Making
PPUA 5249	Sustainable Urban Coastal Policy
PPUA 5261	Dynamic Modeling for Environmental Decision Making
PPUA 5267	Climate Policy and Justice
PPUA 5268	International Environmental Policy

**Psychology Depth Courses**

PSYC 7210	Seminar in Cognition
PSYC 7240	Seminar in Biology of Behavior
PSYC 7250	Seminar in Clinical Neuroscience
PSYC 7270	Seminar in Social Psychology
PSYC 7300	Advanced Quantitative Analysis

**Sustainability Depth Courses**

EEMB 7101	Seminar in Marine Sciences
EEMB 7102	Seminar in Ecology and Evolutionary Biology
EEMB 7103	Seminar in Sustainability Sciences
EEMB 7104	Seminar in Geosciences
ENVR 6102	Environmental Science and Policy Seminar 2
LPSC 7312	Cities, Sustainability, and Climate Change
POLS 7334	Social Networks
PPUA 6101	Environmental Science and Policy Seminar 1
PPUA 7346	Resilient Cities
SOCL 7267	Environment, Health, and Society

**Dissertation**

<b>Code</b>	<b>Title</b>	<b>Hours</b>
Please enroll in either EEMB 9990 or PSYC 9990 for one semester after achieving candidacy. In the following semester, please enroll in either EEMB 9991 or PSYC 9991.		
EEMB 9990	Dissertation Term 1	
or PSYC 9990	Dissertation Term 1	
EEMB 9991	Dissertation Term 2	
or PSYC 9991	Dissertation Term 2	

**Program Credit/GPA Requirements**

31 total semester hours required

Minimum 3.000 GPA required