

SUSTAINABILITY, CERTIFICATE

WHY CHOOSE A SUSTAINABILITY CERTIFICATE?

Perhaps the best reason for pursuing a sustainability certificate is a personal interest in learning practical skills to make a difference in the world – in your life, in your job, and in your community. Working toward a certificate offers students the opportunity to pursue interests that complement their major(s). For example, the interdisciplinary nature of sustainability encourages students to consider multiple perspectives. In doing so, this certificate provides a breadth of perspective highly applicable to complex problems, such as those we face in our communities, in our workplaces, and in our personal lives.

The Nelson Institute also offers a major and another certificate:

Environmental Studies Major (<http://guide.wisc.edu/undergraduate/letters-science/environmental-studies/environmental-studies-major/>)
Environmental Studies Certificate (<http://guide.wisc.edu/undergraduate/environmental-studies/environmental-studies/environmental-studies-certificate/>)

HOW TO GET IN

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Students interested in declaring the sustainability certificate can email undergrad@nelson.wisc.edu or request a declaration appointment. Information about declaring the certificate can be found at undergraduate advising (<https://nelson.wisc.edu/undergraduate/advising.php>).

Students who earn a sustainability certificate may **not** earn the environmental studies certificate or the certificate in engineering for energy sustainability.

REQUIREMENTS

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- A 2.00 GPA in all coursework that counts toward the certificate
- 15 credits of coursework, including:
 - at least 2 credits from each of the four main categories below
 - 1 credit in ENVIR ST 398 Independent Study: Sustainability Community Engagement for a sustainability-related community service project or 2 credits in ENVIR ST 317 Community Environmental Scholars Program Seminar
- Courses taken on a pass/fail basis will not count toward the certificate.

ENVIRONMENTAL DIMENSION

Code	Title	Credits
Select minimum of 2 credits		2
ENVIR ST/ ATM OCN/ GEOSCI 102	Climate and Climate Change	3

ENVIR ST/ GEOSCI 106	Environmental Geology	3
LAND ARC/ AMER IND 106	Earth Partnership Indigenous Arts and Sciences	3
PHYSICS 115	Energy and Climate	3
ENVIR ST/ GEOG 120	Introduction to the Earth System	3
ENVIR ST/ILS 126	Principles of Environmental Science	4
ENVIR ST/GEOG 127	Physical Systems of the Environment	4
SOIL SCI/ ATM OCN 132	Earth's Water: Natural Science and Human Use	3
ENVIR ST/ ATM OCN 171	Global Change: Atmospheric Issues and Problems	2-3
ENVIR ST/ILS 255	Introduction to Sustainability Science	4
ENVIR ST/BOTANY/ ZOOLOGY 260	Introductory Ecology	3
AGROECOL 303	Agroecological Systems: Working Towards Sustainability	3
ENVIR ST/ GEOG 309	People, Land and Food: Comparative Study of Agriculture Systems	3
CIV ENGR 311	Hydroscience	3
SOIL SCI 327	Environmental Monitoring and Soil Characterization for Earth's Critical Zone	4
ENVIR ST/ ATM OCN/ GEOG 332	Global Warming: Science and Impacts	3
ENVIR ST/ ATM OCN 355	Introduction to Air Quality	3
ENVIR ST/ F&W ECOL/ ZOOLOGY 360	Extinction of Species	3

SOCIAL DIMENSION

Code	Title	Credits
Select minimum of 2 credits		2
ENVIR ST 112	Environmental Studies: Social Science Perspectives	3
ENVIR ST/ GEOG 139	Global Environmental Issues	3
C&E SOC/SOC 140	Introduction to Community and Environmental Sociology	4
ENVIR ST/ ENTOM 205	Our Planet, Our Health	3
GNS/ENVIR ST 210	Cultures of Sustainability: Central, Eastern, and Northern Europe	3
URB R PL 215	Welcome to Your Urban Future	3
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	3
ENVIR ST/ AMER IND 306	Indigenous Peoples and the Environment	3
GEOG/ ENVIR ST 337	Nature, Power and Society	3

ENVIR ST/ GEOG 339	Environmental Conservation	4
ENVIR ST/ AMER IND/ GEOG 345	Caring for Nature in Native North America	3
ENVIR ST 349	Climate Change Governance	3
A A E/AGRONOMY/ NUTR SCI 350	World Hunger and Malnutrition	3
PUB AFFR 366	U.S. Environmental Politics and Public Policy	3
ECON 370	Economics of Poverty and Inequality	3
ENVIR ST/ GEOG 439	US Environmental Policy and Regulation	3-4
ENVIR ST/ PHILOS 441	Environmental Ethics	3-4
ENVIR ST/ SPANISH 445	Culture and the Environment in the Luso-Hispanic World	3
ENVIR ST/ GEOG 537	Culture and Environment	4
SOC/C&E SOC/ ENVIR ST 540	Sociology of International Development, Environment, and Sustainability	3
C&E SOC/SOC 541	Environmental Stewardship and Social Justice	3

ECONOMIC DIMENSION

Code	Title	Credits
Select minimum of 2 credits		
A A E/ENVIR ST 244	The Environment and the Global Economy	4
A A E 246	Climate Change Economics and Policy	3
GEN BUS 250	Sustainable Capitalism	2
M H R 310	Challenges & Solutions in Business Sustainability	3
A A E/ECON/ ENVIR ST 343	Environmental Economics	3-4
ECON 370	Economics of Poverty and Inequality	3
OTM 370	Sustainable Approaches to System Improvement	3
A A E/INTL ST 373	Globalization, Poverty and Development	3
CIV ENGR/G L E 421	Environmental Sustainability Engineering	3
A A E/ECON 474	Economic Problems of Developing Areas	3
A A E/ECON/ F&W ECOL 531	Natural Resource Economics	3
R M I 650	Sustainability, Environmental and Social Risk Management	3
REAL EST 651	Green - Sustainable Development	3

SYSTEMS DIMENSION

Code	Title	Credits
Select minimum of 2 credits		
ENVIR ST 326	Sustainability Tools: Systems Thinking & Life Cycle Assessment	3
AGRONOMY 375	Special Topics (Systems Thinking only)	1-4
ENVIR ST 402	Special Topics: Social Perspectives in Environmental Studies (Systems Thinking only)	1-4
CIV ENGR 494	Civil and Environmental Engineering Decision Making	3

MULTIDIMENSIONAL AND CROSS-TOPICS COURSES

Code	Title	Credits
Additional coursework that may be used to attain 15 credits in the certificate		
ENVIR ST/ SOIL SCI 101	Forum on the Environment	1-2
ENVIR ST 117		1
LAND ARC 211	Shaping the Built Environment	3
HORT/PL PATH 261	Sustainable Turfgrass Use and Management	2
ED POL 320	Climate Change, Sustainability, and Education	3
ENVIR ST/ GEOG 333	Green Urbanism	3
A A E/AGRONOMY/ HORT/PL PATH 367	Introduction to Organic Agriculture: Production, Markets, and Policy	3
ENVIR ST/BSE 367	Renewable Energy Systems	3
LAND ARC 373	Mindfulness in Restorative Environments	3
CURRIC/C&E SOC/ ENVIR ST 405	Education for Sustainable Communities	3
ENVIR ST 417	Sustainability Science, Technology and Policy	1
DY SCI/ AGRONOMY 471	Food Production Systems and Sustainability	3
DY SCI/AN SCI/ FOOD SCI/ SOIL SCI 472	Animal Agriculture and Global Sustainable Development	1
CIV ENGR 495	Sustainable Building and Materials	3
CIV ENGR 525	Case Studies Exploring Infrastructure Sustainability and Climate Change	3
URB R PL 551	Climate Action Planning: Sustainable Transportation	3
LAND ARC 563	Designing Sustainable and Resilient Regions	4

CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.

LEARNING OUTCOMES

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1. Identify, critically analyze, and propose solutions to the environmental, social, and economic dimensions of sustainability.
2. Engage in systems thinking and practice so as to address the interrelationships among the three dimensions of sustainability.
3. Develop the capacity for an engaged life in which theory, practice, and reflection are integrated in the pursuit of a more sustainable world.

ADVISING AND CAREERS

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Nelson Institute students are represented in majors across campus and in most undergraduate schools and colleges. Sustainability certificate students should utilize the career office for their home school as appropriate. All students, not just Letters & Science students, can also benefit from SuccessWorks at the College of Letters & Science.

PEOPLE

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A complete list of faculty and staff affiliated with the Nelson Institute is available here. (<http://nelson.wisc.edu/people/>)