

Studies in Sustainability Minor

Contact persons:
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How to join the program

We invite all faculty to consider adding a sustainability aspect to their courses. If you have a course that you think serves the goals of the program or would like to develop one, please contact Jim Kain or Etsuko Hoshino-Browne. We will help you develop course syllabi, course materials, and learning outcome assessment plans so your course will meet requirements for the minor. We will be glad to guide you through the process.

Program Description

The Studies in Sustainability Minor Program is intended for students to deepen and broaden their understanding of what sustainability is and why it is important. Students will acquire knowledge of how sustainability issues encompass various factors such as nature and environment, psychological and physical well-being, politics, and economy. Students develop skills to think critically and consider moral dilemmas and social problems regarding sustainability and ecological challenges through courses in environmental science, philosophy, literature, communication, political science, psychology, social work, and theology. After students complete this minor program, they will understand the interdisciplinary nature of sustainability issues and how to address or solve environmental and ecological challenges.

Program Requirements

19 Credits are needed to complete the program

Students will be required to take:

- ENV 105 Introduction to Environmental Science (3 credits)
- ENV 115 Introduction to Environmental Sciences Laboratory (1)
- **And/Or***
- BIO 233 Ecology (3 credits) Prerequisite(s): One university biology course (with a minimum grade of C); MATH 102 is recommended; Concurrent with BIO 243.
- BIO 243 Ecology Laboratory (1 credit)

Students take a minimum of 15 credits from any of the following elective courses:

- BIO 105/115 General Biology (4)
- ENG 204 Nature Writing (3)
- ENG 330 Literature in Foreign Cultures (3)
- CDM 110 Introduction to Communication (3) (with sustainability topics)
- PHIL 255 Ethics and the Environment (3)
- POLSC 350 Politics and the Environment (3)
- THEO 320 Francis and the Environment (3)
- SP 340 Iberoamerica

- ENV 126/226/326 Special Topics in Environmental Studies (if pre-requisites are met)
- Any special topics courses designed to include sustainability issues (definition to be determined).

*Please note: If ENV 105/ENV 115 is taken to fulfill the required course as listed above, then students may take BIO 233/BIO 243 as an elective. If BIO 233/BIO 243 is taken to fulfill the required courses as listed above, then ENV 105/ENV 115 can be taken as an elective (please see Appendix A).

Course expectations for the Studies in Sustainability Minor

Courses that serve the Minor will need to be approved by a team of reviewers. The course syllabi should include:

- A note that states: *This course can count towards the Studies in Sustainability Minor*
- A statement in the Course Goals and/or Learning Outcomes that addresses the concept of sustainability
- Include *Core LO 4.4 Demonstrate environmental awareness and stewardship*
- Include *IDEA 2. Developing knowledge and understanding of diverse perspectives, global awareness, or other cultures (as Important or Essential)*
- A separate statement or passage that defines sustainability and identifies the knowledge, skills and attitudes/values that will be addressed in the course. For example:



This course will explore the topic of “Sustainability” as a perspective on our relationship with the natural world and all its inhabitants. The Brundtland Report (1987) defines sustainability as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This aligns with Neumann’s value of Stewardship and our Franciscan perspective on the sacramental essence of our relationship with nature. Sustainability encompasses four dimensions or perspectives: Economic development, Social equity, Environmental justice, and Wellbeing (physical, emotional, spiritual). We will reflect on

its relevance and impact in personal, local, and global dimensions. We will investigate specific issues and opportunities for which a “sustainability” perspective could have practical applications for ourselves and others. Our relationship with nature matters. This course will help you understand that relationship and how our choices today impact the world of the future.

Brundtland, G.H. (1987) Our Common Future: Report of the World Commission on Environment and Development. Geneva, UN-Dokument A/42/427.

Learning Outcomes for the Minor

Students who complete the Minor will:

- Demonstrate awareness and knowledge of basic environmental issues and the concept of sustainability
- Evaluate global environmental issues and analyze those issues' impact through a wide range of disciplines and applications
- Apply understanding of the Franciscan perspective to environmental stewardship and sustainability

Assessment Plan

To assess the Studies in Sustainability Minor, we plan to look at the sustainability-focused knowledge, skills, and attitudes/values that are addressed in each of the courses used to complete the program. Artifacts (essays, tests, assignments) will be collected from those courses each year and will be assessed by a team of reviewers using the Environmental Awareness and Stewardship Rubric developed by the CORE Committee (see Appendix B). In addition, we will use a course matrix (see Appendix C) to map out the ways each course contributes to the overall goals of the Minor (please see the attachments).

Rationale and Benefits

In 2022, Neumann University committed to develop and implement Pope Francis' Laudato Si' Action Plan for the next 7 years. The Laudato Si' Action Plan is particularly important and aligns with our NU values of Reverence for all creation and Stewardship of resources. Moreover, the 7-year commitment "aligns with the values and commitment of the Sisters of St. Francis of Philadelphia" (Laudato Si' Action Plan: Our Year 1 Challenge! Presentation on September 28 & 29, 2022, by the NIFS and Sustainability Advisory Council).

One of the 7 goals is ecological education. It is about "re-thinking and re-designing curricular and institutional reform in the spirit of integral ecology in order to foster ecological awareness and transformative action. Actions could include ensuring equitable access to education for all and promoting human rights, fostering Laudato Si' themes within the community, encouraging ecological leadership (students, teachers), and ecological restoration activities"

(<https://laudatosiactionplatform.org/>).

To promote this goal and to achieve one of NU Core outcomes "4.4 Demonstrate environmental awareness and stewardship," developing and adding the Sustainability Minor becomes critically important. Not only should the proposed minor increase the awareness and knowledge of sustainability and related issues among NU students, but the minor should also provide NU students opportunities to become effective and ethical leaders who are mindful of environmental issues.

In addition, research shows that sustainability careers are an emerging trend across public and private sectors. In the article, *The Greening of Business* (Viswanathan, 2018), the authors state:

“there is a rising wave of green consumerism that has opened up a huge market opportunity for entrepreneurs to carry out eco-friendly and sustainable business.”

A quick job search on Google confirms that this market is a real trend. The Columbia Climate School's Tirodkar (2022) argues that the sustainability job market is becoming large and competitive. The blog refers to Katie Kross, a sustainability educator at Duke University's Fuqua School of Business and an expert in job markets who stated, “The sustainability job market is booming. There has never been a better time to pursue a career in sustainability.” The blog also notes Microsoft's Sekol's comment, “Just like the internet completely transformed businesses in the early 2000s, sustainability is about to transform the way we do business like never before, but we are at a nascent stage.”

Given this trend, the Minor in Sustainability will also provide students with enhanced opportunities in their careers.

Sources

Viswanathan L, Varghese G. (2018). Greening of business: A step towards sustainability. *J Public Affairs*. 18:e1705. <https://doi.org/10.1002/pa.1705>

Tirodkar, P. April 28, 2022. How to find a job in sustainability. <https://news.climate.columbia.edu/2022/04/28/how-to-find-a-job-in-sustainability/>

Appendix A

STUDIES IN SUSTAINABILITY MINOR

To complete the Minor in Interdisciplinary Sustainability Studies, students must complete a total of 19 credits. All courses must be completed with a grade of C or better.

REQUIRED COURSES (4 credits)

Students must complete a 4 credit Science/Lab course. Students may choose between ENV 102/115 or BIO 233/243 to fulfill this requirement.

ELECTIVE OPTIONS (15 credits)

Students may choose any five of the courses listed below to fulfill the remaining 15 credits and complete the Interdisciplinary Sustainability Studies Minor.

Student's Name: _____

REQUIRED COURSE (4 credits)	CREDITS	COMPLETED
ENV 105 Introduction to Environmental Science (3 credits) And ENV 115 Introduction to Environmental Sciences Laboratory (1 credit) or BIO 233 Ecology (3 credits) And BIO 243 Ecology Laboratory (1 credit)		

ELECTIVE COURSES (15 credits)	CREDITS	COMPLETED
BIO 105/115 General Biology		
ENG 204 Nature Writing		
ENG 330 Literature in Foreign Cultures		
CDM 110 Introduction to Communication		
ENV 105 Introduction to Environmental Science (3 credits) And ENV 115 Introduction to Environmental Sciences Laboratory (1 credit) or BIO 233 Ecology (3 credits) And BIO 243 Ecology Laboratory (1 credit)		
PHIL 255 Ethics and the Environment		
POLSC 350 Politics and the Environment		
THEO 320 Francis and the Environment		
ENV 126/226/326 Special Topics in Environmental Studies		
SPECIAL TOPICS COURSES (designed to include sustainability issues)		

TOTAL CREDITS COMPLETED: _____

*Please note: If ENV 105/ENV 115 is taken to fulfill the required course as listed above, then students may take BIO 233/BIO 243 as an elective. If BIO 233/BIO 243 is taken to fulfill the required courses as listed above, then ENV 105/ENV 115 can be taken as an elective.

Appendix B

LO 4.4 COMPASSION – ENVIRONMENTAL AWARENESS AND STEWARDSHIP

Based on AAC&U VALUE Rubric (Note: This is tentative and likely to be revised.)

	Mastered (4)	Accomplished (3)	Developing (2)	Beginning (1)
Environmental Awareness	Student discusses in detail national environmental issues with depth and clarity.	Student discusses in detail environmental issues in their life as related to national issues.	Student states environmental issues and can briefly explain them.	Student states environmental issues but is not able to explain them.
Understanding Global Environmental Issues	Student can recognize the breadth and depth of environmental issues across the globe and discuss in detail the relationships among countries.	Student can recognize the breadth and connectedness of environmental issues across the globe and discuss the relationships among countries.	Student can state both common and global environmental issues.	Student can state common environmental issues.
Evaluation of Environmental Issues	Student discusses/analyzes in detail environmental world views recognizing the pros and cons of controversial issues.	Student discusses environmental world views recognizing the pros and cons of controversial issues.	Student states environmental world views recognizing the pros and cons of controversial issues.	Student states environmental world views.
Awareness of Solutions to Environmental Issues	Student accurately articulates possible solutions to local, state, national and global environmental issues and takes part in a solution activity.	Student accurately articulates possible solutions to local, state, national and global environmental issues.	Student discusses possible solutions to local, state, national and global environmental issues and takes part in a campus activity.	Student states possible solutions to local, state, national and global environmental issues.
Demonstration of Environmental Stewardship	Student evaluates active participation in campus/local/state environmental activities through thoughtful and respectful reflection papers.	Student actively participates in campus/local environmental activities and discussions.	Student actively participates in campus environmental activities.	Student is aware of campus environmental

Appendix C

The Studies in Sustainability Minor Course Matrix

(Note: this assessment plan is in development and likely to change)

Dimensions	Course Number and Title	Course Content/Activity/Assignment	Assessment Plan – how/when
Knowledge -Students will define/describe basic environmental concepts, including: <ul style="list-style-type: none"> • Sustainability • Human impact on environment • Biodiversity • Urbanization • Local, National, Global needs 	ENG 204 Nature Writing	Students will select an article about a sustainability issue from the UN Sustainable Development Goals website (https://sdgs.un.org/goals) and write an article for a blog in which they explain the issue, identify causes and short and long-term effects.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	ENG 330 Literature in Foreign Cultures	Students will consider various sustainability issues in the foreign cultures as well as their own presented in the assigned readings and reflect on them in the final reflection essay. Students will also make an oral PowerPoint presentation based on individual critical papers students write. Students will be required to add to this oral presentation the results of their exploration of contemporary environmental impact on the particular region of the world from which their literary work arose.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	BIO 233/243 Ecology	Students will learn fundamentals in ecology, and then build on their foundation through a student-driven project where they research and summarize a recent scientific article of their choice in a paper and presentation format.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	POLSC 350 Politics and the Environment	Students will write a research paper.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric

Dimensions	Course Number and Title	Course Content/Activity/Assignment	Assessment Plan – how/when
Skills -Students will develop skills to: <ul style="list-style-type: none"> • evaluate global environmental issues • analyze the impacts of these issues and consider possible solutions • communicate the issues and possible solutions to their impacts to peers, family, and members of the community 	ENG 204: Nature Writing	Students will participate in a community project related to the environment. Then they will compose a blog reporting on the experience and relating it to class readings.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	ENG 330 Literature in Foreign Cultures	Students will consider various sustainability issues in the foreign cultures as well as their own presented in the assigned readings and reflect on them in the final reflection essay. Students will also make an oral PowerPoint presentation based on individual critical papers students write. Students will be required to add to this oral presentation the results of their exploration of contemporary environmental impact on the particular region of the world from which their literary work arose.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	ENV 105/115 Introduction to Environmental Studies	Students will complete the lab, post lab, and self-guided exploration assignments.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	POLSC 350 Politics and the Environment	Students will engage in a Proclamations Exercise that requires writing and delivering a speech for a local official on an environmental problem/case.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	PHIL 225 Ethics and the Environment	Students will write a 5-page Analytical Essay on a topic in environmental ethics. Essay topics include: <ul style="list-style-type: none"> - What would be an ethical way to manage the wilderness? - What should we do to fight environmental racism? - What are our ethical obligations concerning food? - Which is more ethically appropriate, environmental individualism or environmental holism? - How are public policy decisions about environmental issues really ethical decisions? 	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric

Dimensions	Course Number and Title	Course Content/Activity/Assignment	Assessment Plan – how/when
<p>Attitudes -Students will apply the Catholic Franciscan tradition to environmental stewardship and sustainability by:</p> <ul style="list-style-type: none"> • engage in ongoing reflection of personal responsibility and accountability for the environment. • advocating for an environmental issue of their choice 	THEO 330 Francis and the Environment	Students will write a theological reflection paper in which they relate class themes to an experience in creation (e.g., link between social crisis and ecological crisis).	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	ENV 105/115	Students will complete the advocacy assignments which consist of “signing,” “writing,” “doing,” and “sharing” of their advocacy for environmental issues.	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric
	PHIL 225 Ethics and the Environment	<p>Students will write a 5-page Analytical Essay on a topic in environmental ethics. Essay topics include:</p> <ul style="list-style-type: none"> - Are there moral reasons to try and ensure a particular population size in the further future? - Is human-induced global climate change ethical? - Is there an obligation to move toward sustainability? - Is there an obligation to protect endangered species? - Is nuclear energy (and nuclear waste) ethical? - Is there an obligation to develop alternative energies? - Is there an obligation to make business green? - What are our ethical obligations concerning food? - Are illegal means ever justified in the pursuit of environmental and ecological goals? 	AY 2025-2026 using the LO 4.4 Environmental Awareness and Stewardship Rubric