

General Studies Gold Request Form

Consult the [General Studies Request FAQ](#) for more information and quick answers.

New permanent numbered courses must be submitted to the workflow in [Kuali CM](#) before a General Studies request is submitted here. The General Studies Council will not review requests ahead of a new course proposal being sent to the Senate.

Submission Information

College/School

Mary Lou Fulton Teachers College (CTE)

Department/School

Division of Educational Leadership and Innovation
(CEDGRAD)

Submission Type

New Request

Requested Effective Date

Fall 2025

ASU Request

Is this request for a permanent course or a topic?

Permanent Course

Subject Code

SCN

Course Number

208

Units/Credit Hours

4

Course Information

Enter the course catalog information, found in the [web course catalog](#) or [Kuali CM](#).

Course Title

Nature and Society: An Introduction to Environmental Studies

Course Catalog Description

Introduces environmental studies with a focus on scientific thinking. Students explore global environmental issues, learn about the earth's systems, and examine the impacts of human actions. Emphasizes using evidence to collect and interpret data, test ideas, and evaluate environmental claims. Students also create models to explain natural processes and develop science-based solutions to environmental challenges, improving their ability to communicate evidence-based arguments on key issues.

Enrollment Requirements (Prerequisites, Corequisites, and/or Antirequisites)

Prerequisite(s): ENG 101, 105, or 107 with C or better or minimum 15 hours OR Visiting University Student

Is this a crosslisted course?

No

Is this course offered by (shared with) another academic unit?

No

If this course or topic already carries a different General Studies Gold (not Maroon) designation than the one being requested, please check this box.

By checking this box, I confirm I understand that each course or topic can only carry one General Studies Gold designation. If this request is approved, it will replace the existing GS Gold designation on the course or topic.

Provide a brief justification for this request to change the General Studies Gold designation on this course or topic.

Moving SCN 208: Nature and Society: An Introduction to Environmental Studies from the Sustainability (SUST) designation to the Scientific Thinking in Natural Sciences (SCIT) designation is justified based on the course's alignment with SCIT learning outcomes. The course content emphasizes interpreting data, constructing and testing scientific hypotheses, and evaluating the validity of scientific claims through evidence-based approaches. It fosters students' ability to create models to explain observable phenomena and natural processes, which directly addresses SCIT LO1, LO2, LO3 and LO4. While sustainability concepts are still relevant, the focus on scientific methodology, critical thinking, and analysis of biological and physical systems aligns more closely with SCIT learning outcomes. Shifting to SCIT will also allow students to develop a deeper understanding of environmental systems through scientific inquiry, fulfilling the Scientific Thinking in Natural Sciences requirement more comprehensively.

General Studies Gold Designation Request

Requested Designation

Scientific Thinking in Natural Sciences (SCIT)

Attach a representative syllabus for the course, including course learning outcomes and descriptions of assignments and assessments.

[Syllabus SCN 208 GOLD SCIT F24 15W.docx.pdf](#)

Scientific Thinking in Natural Sciences (SCIT)

Courses in scientific thinking in natural sciences will promote public scientific literacy, which is critical for sound decisions about scientifically infused issues such as climate change. Scientific thinking in natural sciences includes understanding basic science concepts, such as the fundamental behavior of matter and energy, as well as understanding that science is not an encyclopedic collection of facts. Science is a process of exploration that embraces curiosity, inquiry, testing, and communication, to

reduce uncertainty about nature. In Scientific Thinking in the Natural Sciences courses, students will engage in the scientific process through lab experiences.

Instructions: In the fields below, state the assignment, project, or assessment that will measure each learning outcome, and provide a description. The description should provide enough detail to show how it measures the learning outcome. If needed, more than one can be identified.

The proposal does not need to include all course assessments that measure a given learning outcome. The provided assessment should include sufficient detail to allow the subcommittee to make their evaluation. When appropriate, the same assessment can be listed for more than one learning outcome (e.g., a culminating project).

You may provide links to a document (Google Drive or Dropbox) that includes the relevant details for the assessment. Do not provide links to Canvas shells.

SCIT Learning Outcome 1: Obtain and interpret qualitative or quantitative data and communicate the findings.

The "Nature and Society: An Introduction to Environmental Studies" course integrates SCIT LO1, by emphasizing data collection, interpretation, and communication skills across assignments. The following assignments provide structured opportunities for students to gather quantitative and qualitative data, critically interpret their findings, and communicate insights on environmental and societal impacts.

VISA: Very Important Student Activities -The Ecological Footprint assignment aligns with SCIT LO1 by having students gather, interpret, and communicate data on their environmental impact. Using a footprint calculator, students collect quantitative data on their lifestyle's resource demands and compare it with sustainable benchmarks. Reflection questions help students analyze how lifestyle factors, like home size, diet, and waste, affect their ecological footprint. This assignment enhances students' skills in interpreting and communicating data-driven insights on sustainability, directly supporting SCIT LO1's focus on data analysis and effective communication. [Ecological Footprint Rubric](#)

Environmental Studies Lab Activities -The "Tale of Two Countries" assignment meets SCIT Learning Outcome 1 by having students collect and interpret data on demographic and economic indicators for two countries, such as GDP, population density, and life expectancy. Students analyze both qualitative and quantitative data to understand how these indicators influence social and environmental outcomes. In a final comparison, they synthesize their findings, interpret the impacts of various factors, and communicate evidence-based conclusions, developing essential skills in data analysis, interpretation, and communication.. [Tale of Two Cities](#) [Rubric](#)

Circle of Service - The Circle of Service Community Engagement Project fulfills SCIT Learning Outcome 1 by engaging students in gathering, interpreting, and communicating data related to environmental and community service activities. Students start with a proposal, collecting qualitative data on an environmental issue and detailing their planned service activity. Throughout the project, they document their experience with photos or videos, capturing

both qualitative and quantitative impacts. In their reflection essay, students analyze the societal and environmental outcomes of their service, linking it to course themes. Finally, students share their insights and future action steps through a presentation, effectively communicating their findings and reinforcing data interpretation skills in a real-world context. [Circle of Service](#) with rubric

Through these assignments, students not only fulfill SCIT LO1 but also deepen their understanding of sustainability and their role within environmental systems, equipping them with the skills to effectively interpret and communicate data-driven insights on critical environmental issues.

SCIT Learning Outcome 2: Employ evidence to construct and test scientific hypotheses.

The following assignments are designed to build your understanding of environmental concepts while developing your scientific thinking skills through real-world applications. These activities are crafted to align with the Scientific Thinking in Natural Sciences (SCIT) Learning Outcome 2, which emphasizes using evidence to construct and test scientific hypotheses

Environmental Studies Lab Activities - The Water Usage assignment aligns with SCIT LO2 by guiding students to use evidence from their personal water footprint to construct and test scientific hypotheses about resource use. Students first gather quantitative data on their indoor, outdoor, and virtual water usage and compare it to U.S. averages. Using this data, they form hypotheses about their water usage patterns, such as identifying whether virtual or outdoor water use is the largest contributor. They then test these hypotheses by analyzing the data, reflecting on results, and comparing their usage with averages to identify underlying reasons. Finally, students hypothesize changes to reduce their footprint and assess these changes' effectiveness with evidence-based tips. This approach aligns with SCIT LO2 by fostering evidence-based hypothesis construction and testing related to personal environmental impact. [Water Usage Rubric](#)

VISA: Very Important Student Activities - The Ecological Footprint assignment aligns with SCIT LO2 by guiding students to construct and test hypotheses on sustainability. Through footprint calculations and experimenting with lifestyle changes (e.g., home size, diet, waste), students gather and analyze data to assess how behaviors impact resource demand. This evidence-based approach helps them explore the limits of sustainability, meeting SCIT LO2 by applying scientific hypotheses to real-world resource challenges. [Ecological Footprint Rubric](#)

SCIT Learning Outcome 3: Assess the validity of scientific claims using evidence from biological or physical science.

The following assignments are designed to foster critical thinking, scientific analysis, and real-world application. Through a variety of activities, students examine environmental issues using scientific evidence, allowing them to build skills in evaluating ecological claims, understanding sustainability, and recognizing human impacts on the environment.

VISA: Very Important Student Activities - The Lorax assignment aligns with SCIT LO3 by guiding students to assess environmental claims with scientific evidence. By comparing The Lorax with Meaning of Land to Aboriginal Peoples, students examine human impacts on ecosystems, including resource depletion and pollution, contrasting these with Indigenous

land stewardship. Through group discussions, a Venn diagram, and a reflection essay, they critically evaluate environmental themes and real-world sustainability issues, developing skills in evidence-based assessment of environmental claims as required by SCIT LO3. [The Lorax and Sustainable Practices](#)

Discussion: Key Understandings - The Key Understanding discussion assignment aligns with SCIT LO3 by encouraging students to critically assess scientific claims through evidence-based discussion. As students summarize key insights and pose burning questions, they analyze module content by examining environmental claims linked to biological or physical science concepts. Peer discussions allow them to further evaluate these claims, integrating diverse perspectives and connecting their relevance to real-world contexts, such as ASU, their major, and global challenges. This process deepens students' understanding, tests the validity of claims, and connects theory to action, directly supporting SCIT LO3's focus on evidence-based assessment. [Discussion: Key Understandings](#) with [Rubric](#)

Environmental Studies Lab Activities - The Water Usage assignment meets SCIT Learning Outcome 3 by having students assess scientific claims about water consumption with real data. Students calculate their water footprint, compare it to U.S. averages, and analyze how different water uses—indoor, outdoor, and virtual—affect their total. This activity promotes critical thinking about water usage claims, fostering skills in evaluating scientific evidence from biological and physical data.. [Water Usage](#) [Rubric](#)

SCIT Learning Outcome 4: Create models to explain observable phenomena and understand biological or physical processes in the natural world.

The following course assignments are designed to bring environmental concepts to life through practical, hands-on activities that connect scientific theories with real-world applications. By engaging students in the creation and analysis of models, these assignments not only foster scientific thinking but also emphasize the interconnectedness of natural cycles and human impact.

Environmental Studies Lab Activities - The Understanding Earth Cycles assignment aligns with SCIT LO4 by engaging students in creating models of the carbon, water, nitrogen, and phosphorus cycles. This modeling helps students explain natural processes and their interconnectedness, illustrating how changes in one cycle impact others. Through hands-on activities and analysis of human effects, students use models to interpret complex Earth processes, directly supporting SCIT LO4's goal of modeling observable phenomena to understand biological or physical processes in the natural world. [Lab: Understanding Earth Cycles](#)

Environmental Studies Lab Activities - The Water Usage assignment aligns with SCIT LO4 by engaging students in creating a model of their personal water consumption. By calculating and categorizing their water use—indoor, outdoor, and virtual—students visualize their usage patterns and compare them to national averages. This exercise illustrates the biological and physical processes driving water demand and conservation, helping students see how daily habits connect to broader environmental impacts. Through this modeling, students develop a deeper understanding of real-world water use, fulfilling SCIT LO4's objective to create models that explain observable phenomena. [Water Usage](#) [Rubric](#)

Circle of Service - The Circle of Service assignment aligns with SCIT LO4 by having students create models that explain observable environmental and societal interactions through hands-on community service. In projects like habitat restoration or waste reduction, students see firsthand the connections between human actions and ecological processes. By documenting these experiences and crafting a personal action plan, students model environmental stewardship, linking course concepts to real-world sustainability efforts. This approach directly supports SCIT LO4 by helping students create practical models to understand and explain biological and ecological processes in the natural world. [Circle of Service](#)

SCIT Learning Outcome 5: Communicate coherent arguments using evidence drawn from qualitative or quantitative sources.

The following assignments are carefully designed to build students' critical thinking, analytical, and communication skills in the realm of environmental studies. Each assignment aligns with the Scientific Thinking in Natural Sciences Learning Outcome 5 (SCIT LO5), emphasizing the use of qualitative and quantitative evidence to construct and communicate coherent arguments on complex environmental issues.

VISA: Very Important Student Activities - The Social Justice Simulation assignment aligns with SCIT LO5 by having students communicate clear, evidence-backed arguments during a global environmental treaty negotiation. Representing diverse stakeholders, they research their roles' environmental and economic priorities and use data to advocate for their positions on climate action, financial aid, and justice issues. This exercise emphasizes crafting coherent arguments supported by both qualitative and quantitative evidence, enhancing students' communication skills in environmental justice discussions. [Social Justice Simulation](#)

Discussion: Key Understandings - The Key Understanding discussion assignment meets SCIT LO5 by guiding students to communicate clear, evidence-based arguments. Students analyze module content, share insights with summaries and burning questions, and engage in peer discussions. By using qualitative or quantitative evidence to support their ideas and reflecting on group interactions, they reinforce SCIT LO5 through structured, evidence-backed communication and analytical thinking. [Discussion: Key Understandings](#) with [Rubric](#)

Environmental Studies Lab Activities - The Water Usage assignment aligns with SCIT LO5 by having students calculate their water footprint, compare it to U.S. averages, and analyze their activities' impact on water use. This process enables them to communicate clear, evidence-based insights about their habits and propose practical conservation steps, reinforcing their ability to make informed arguments grounded in quantitative data. [Water Usage Rubric](#)

List all course-specific learning outcomes. Where appropriate, identify the associated SCIT learning outcome(s) in brackets (see below for example). Note: It is expected that a majority of course-specific learning outcomes will be associated with a SCIT learning outcome.

Student Learning Outcomes

Upon completion of this course, the student should be able to:

Student Learning Outcomes

1. Identify and explain the scientific, economic, social, and cultural dimensions of current environmental issues at local, regional, national, and global levels and propose sustainable solutions that address these aspects. SCIT LO5
2. Examine how social injustice contributes to global environmental challenges and impedes solutions, evaluating its impact on potential sustainable solutions. SCIT LO3
3. Trace historical perspectives on environmental issues and contrast these with elements of the Green Revolution to understand their impact on integrated human-environmental wellbeing. SCIT LO1
4. Assess the current state of global biodiversity loss and analyze how policies and scientific endeavors aim to mitigate species extinction, improve ecosystem health, and maintain ecosystem services in the context of sustainability. SCIT LO2
5. Analyze the relationship between human population dynamics and environmental impacts and explore and explain their implications for sustainability. SCIT LO4
6. Investigate and analyze global trends in natural resource availability and consumption rates and reflect on how these trends inform sustainability practices and concepts. SCIT LO2
7. Articulate the role of ethics and values in environmental issues and examine their influence within historical, political, and economic contexts. SCIT LO5
8. Develop and apply critical analytical skills to complex environmental and social problems, constructing solutions that integrate sustainability concepts and promote civic and social responsibility. SCIT LO3

Provost Use Only

Backmapped Maroon Approval

No Response

Form Submission - Proposer

Submitted for Approval | Proposer

Angelia Linder - September 25, 2024 at 8:30 AM (America/Phoenix)

Department Approval

Approved

Jill Koyama - September 25, 2024 at 9:46 AM (America/Phoenix)

Alana Lackore

GSC Coordinator Review

Approved

Alicia Alfonso - September 26, 2024 at 3:20 PM (America/Phoenix)

Proposal to add syllabus data to CM currently at Provost office review level.

April Randall

Assistant Vice Provost Review

Approved

Tamiko Azuma - September 26, 2024 at 5:31 PM (America/Phoenix)

All required components confirmed.

Pre-GSC Meeting

Approved

TJ Robedeau - October 8, 2024 at 12:44 PM (America/Phoenix)

April Randall

Scientific Thinking in Natural Sciences (SCIT) Subcommittee

Acknowledge Cancelled

Ralph Chamberlin

Megha Pillai

Michele Devine

Chao Wang

Ashli Morgan - October 30, 2024 at 8:32 AM (America/Phoenix)

The SCIT subcommittee recommends to revise and resubmit the form for SCN 208. The details provided in the Kualu form for the assessments with each learning objective were not comprehensive enough for the subcommittee to determine if they fulfilled each objective. Please provide more information to show how the course assessments meet the SCIT learning objectives. Review the course description and learning objectives in the syllabus to ensure they align with the SCIT requirements.

General Studies Council Meeting

Sent Back

TJ Robedeau - November 1, 2024 at 11:37 AM (America/Phoenix)

Your request was not approved. The SCIT subcommittee invites you to revise and resubmit this request. They provided the following rationale: The SCIT subcommittee recommends to revise and resubmit the form for SCN 208. The details provided in the Kualu form for the assessments with each learning objective were not comprehensive enough for the subcommittee to determine if they fulfilled each objective. Please provide more information to show how the course assessments meet the SCIT learning objectives. Review the course description and learning objectives in the syllabus to ensure they align with the SCIT requirements.

If you have questions regarding this, please reach out to Tamiko Azuma (tazuma@asu.edu).

April Randall

Form Submission - Proposer

Submitted for Approval | Proposer

Angelia Linder - November 6, 2024 at 8:38 AM (America/Phoenix)

Department Approval

Approved

Jill Koyama - November 6, 2024 at 11:11 AM (America/Phoenix)

Alana Lackore

GSC Coordinator Review

Approved

TJ Robedeau - November 6, 2024 at 12:00 PM (America/Phoenix)

April Randall

Assistant Vice Provost Review

Approved

Tamiko Azuma - November 8, 2024 at 12:44 PM (America/Phoenix)

All required components confirmed.

Pre-GSC Meeting

Approved

TJ Robedeau - November 8, 2024 at 1:44 PM (America/Phoenix)

April Randall

Scientific Thinking in Natural Sciences (SCIT) Subcommittee

Acknowledgement Requested

Ralph Chamberlin

Megha Pillai

Michele Devine

Chao Wang

Ashli Morgan - December 3, 2024 at 10:44 PM (America/Phoenix)

The SCIT subcommittee recommends this course REVISE AND RESUBMIT. It is unclear how the listed assessments for LO3 fulfill the physical/biological evidence aspect. This extends to LO5 as well which requires the use of evidence in meeting the LO.

General Studies Council Meeting

Waiting for Approval

TJ Robedeau

April Randall

Registrar Notification

Notification

Courses Implementation

Implementation

Approval

Rebecca Flores

Lauren Bates

Alisha Von Kampen

Proposer Notification

Notification

Angelia Linder

College Notification

Notification

Angelia Linder

ATCS Notification - ASU Course

Notification

Bryan Tinlin

Jessica Burns

Michele Devine

DARS Notification

Notification

Leticia Mayer

Peggy Boivin

EdPlus Notification

Notification

Sarah Shipp

Bronson Cudgel
