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	Department/School
New College of Interdisciplinary Arts and Sciences (CAS)	School of Mathematical and Natural Sciences (CMATNATSCI)

Submission Type

New Request

New Request: A request for a new designation, a change in designation, or to reinstate a designation that has been lost.

Mandatory Review: Only select if this course (or topic on a *permanent* course) is undergoing mandatory review in the current academic year. Not for omnibus topic use.

Modification: A request to modify the expected learning outcomes of the course, but not change any other aspect of the originally approved proposal.

Requested Effective Date

Spring 2026

ASU Request

Is this request for a permanent course or a topic?

Topic

Subject Code	Course Number	Units/Credit Hours
ENV	194	3

Topic Information

If your request is approved:

1. Topics on **omnibus courses** carry a designation for **one** semester (including summer). Please ensure you have requested the term you plan to offer/schedule the topic. Once expired, a new request must be submitted.
2. Topics on **permanent courses** require mandatory review every five years.

Topic Title

Environmental Sustainability

List all other undergraduate courses where this topic exists and the sections will be combined in the schedule.

Topic Description

An introduction to the ecological concepts underlying environmental sustainability, a natural resource management strategy that seeks to restore and maintain the composition, structure, and function of Earth's systems so that future generations can derive the same ecosystem services that current generations enjoy.

Has this topic been scheduled with a GS Gold designation? If so, list which semester(s), including past, current, and future terms.

No

Omnibus topics cannot hold a GS Gold designation for more than three semesters total.

If this topic has already been offered twice with a GS Gold designation, you must attach examples of student work in the next field confirming the measurement of all category learning outcomes. The proposal will not be reviewed without these files.

If this topic has been offered three times with a GS Gold designation, you must request a new permanent course, then request the General Studies designation under the permanent course number.

Student Work Examples

No Response

If you are requesting to change the existing GS Gold (not Maroon) designation, please check this box.

General Studies Gold Designation Request

General Studies Designation

Sustainability (SUST)

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

Env Sustainability Syllabus Review.pdf

Sustainability (SUST)

The Sustainability requirement will provide students with an interdisciplinary understanding of socio-ecological systems in relation to global challenges and opportunities. The learning objectives emphasize systems thinking, where human and non-human systems are understood as intimately connected, with human actions affecting all life on a planet with limits and boundaries. Students should also become familiar with how cultural, political, economic, social, and ethical beliefs, practices and systems are related to and impact planetary systems. Students will use course concepts and systems and futures thinking to address contemporary questions or challenges.

Most of the course content should align with the Gold category learning outcomes.

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.**

SUST Learning Outcome 1: Demonstrate an understanding of the earth and its ecosphere, including the measures that indicate their capacities and limits.

INFOGRAPHIC - The objective of this assignment is to enhance understanding of how aquatic organisms maintain osmotic balance by analyzing and illustrating the movement of salts and water under different osmotic conditions. Students will create detailed, labeled diagrams for three types of organisms: isosmotic (e.g., many marine invertebrates), hyperosmotic (e.g., freshwater fish), and hyposmotic (e.g., marine bony fish). Each diagram should clearly depict the direction of water and ion movement between the organism and its surrounding environment using directional arrows, and must include labels indicating relative solute concentrations (e.g., "higher internal salt concentration"). Additionally, diagrams should highlight relevant physiological structures involved in osmoregulation, such as gills, kidneys, and skin. This visual exercise is designed to reinforce key physiological concepts and promote a deeper understanding of organism-environment interactions in aquatic systems.

UNIT EXAMS - Exams are important because they provide a structured way to assess students' understanding of key concepts, encourage long-term retention of knowledge, and help identify areas that may need further review or clarification. They also promote critical thinking, reinforce learning goals, and offer a standardized method for evaluating academic progress.

SUST Learning Outcome 2: Trace historical impacts of a range of socio-economic, political or cultural choices on integrated human-environmental wellbeing.

ESSAY - For millennia, human influence was largely concentrated on terrestrial ecosystems. However, in recent decades, human activities have begun to affect the oceans at an unprecedented scale and pace. This assignment challenges you to investigate and explain why human impacts on ocean ecosystems have accelerated rapidly in recent years. In this assignment, you will write a 700–800 word research-based essay explaining why human impacts on the oceans

have rapidly increased in recent years, despite historically lagging behind our impacts on land ecosystems. Your essay should include a brief historical overview, identify at least three major drivers of recent ocean degradation, and explain how technological advances, population growth, and global trade have contributed to this shift. You should also describe some ecological or societal consequences of these changes.

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SUST Learning Outcome 3: Envision pathways toward futures characterized by integrated human-environmental wellbeing.

ESSAY - Humans often hunt a limited number of animal species, yet this selective pressure can lead to far-reaching effects throughout ecosystems. In this assignment, you will explore how targeting just a small subset of species can cause cascading impacts on food webs, community dynamics, and ecosystem health. In this assignment, you will write a 700–800 word case study essay explaining how the human hunting of a relatively small number of animal species can have large-scale impacts on entire ecological communities. Your essay should clearly explain the ecological reasons why targeting just a few species can disrupt food webs, community structure, or ecosystem function. Be sure to describe at least two mechanisms through which these impacts occur, such as trophic cascades, the loss of keystone species, or altered predator-prey dynamics. You must also include one real-world case study—for example, the hunting of sea otters, sharks, or large herbivores—that illustrates these broader effects.

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SUST Learning Outcome 4: Articulate an approach to addressing contemporary questions or challenges that employs concepts or practices of sustainability.

INFOGRAPHIC - Succession is a natural process that shapes how ecosystems recover after disturbance. In restoration ecology, understanding and managing the factors that influence succession—such as species interactions, disturbance regimes, soil quality, and invasive species—is critical for guiding ecosystems toward desired outcomes. For this assignment, you will create an infographic that visually summarizes how key factors influencing ecological succession can be managed to support ecosystem restoration. Your infographic should include a brief definition of ecological succession and highlight at least four major factors—such as soil conditions, species interactions, fire regimes, invasive species, or climate—that affect the direction and pace of succession. For each factor, include a short explanation of its role in succession, how it can be intentionally managed in restoration efforts, and a real-world example if possible. Your infographic should be well-organized, visually engaging, and use graphics or icons to enhance understanding.

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List all course-specific learning outcomes. Where appropriate, identify the associated SUST 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 SUST learning outcome.

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1. Discuss how climate, organisms, topography, parent material, and time can influence the structure and development of soils and which organisms can survive. [SUST LO1]

2. Diagram the movement of salts and water between the surrounding environment and aquatic organisms that are isosmotic, hyperosmotic, and hypoosmotic. [SUST LO1]

3. Explain how the effects of disturbance by humans on biodiversity are consistent with the predictions of the intermediate disturbance hypothesis. [SUST LO1]

4. Outline the major nutrient sources and sinks involved in the phosphorus, nitrogen, and carbon cycles. [SUST LO1]

5. Explain why human impacts on the oceans, which lagged behind our impact on terrestrial biomes for thousands of years, have rapidly increased in recent years. [SUST LO2]

6. Describe the purposes of the Convention in International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the U.S. Endangered Species Act. [SUST LO2]

7. Describe how farmers have used ants as a keystone species to reduce pest populations in agricultural ecosystems. [SUST LO2]

8. Summarize the history of human migration from rural areas to cities and the underlying reasons for this population shift. [SUST LO2]

9. Explain the environmental significance of each of the elements, such as feeding biology of species, including in the calculation of an Index of Biotic Integrity. [SUST LO3]

10. Explain how human hunting of a relatively small percentage of animal species can have a massive impact on other species in the community. [SUST LO3]

11. Explain how remote sensing has revolutionized the study of large-scale ecological processes. [SUST LO3]

12. Describe how predicted climate change would impact human populations and infrastructure. [SUST LO3]

13. Discuss how stable isotope analysis is revealing information about trophic ecology that would be hidden to traditional sources, such as stomach analysis. [SUST LO4]

14. Summarize how various factors influencing succession can be managed to facilitate ecosystem restoration. [SUST LO4]

15. Define heat waves and describe the threat that heat waves pose to human populations. [SUST LO4]

16. Discuss the influence of fire and fire suppression on landscape structure in Mediterranean climates [SUST LO4]

Provost Use Only

Backmapped Maroon Approval

No Response

Form Submission - Proposer

Submitted for Approval | Proposer

Christopher Higgins - August 22, 2025 at 1:00 PM (America/Phoenix)

Department Approval

Approved

Morgan Johnson

James Corbeille - September 9, 2025 at 9:49 AM (America/Phoenix)

GSC Coordinator Review

Approved

Kimberly Singleton - September 11, 2025 at 3:22 PM (America/Phoenix)

April Randall

Assistant Vice Provost Review

Approved

Tamiko Azuma - September 12, 2025 at 5:17 PM (America/Phoenix)

All required components confirmed.

Pre-GSC Meeting

Approved

Kimberly Singleton

April Randall - September 15, 2025 at 4:14 PM (America/Phoenix)

Sustainability (SUST) Committee

Acknowledgement Requested

Ryan Heintzman

Kevin Dooley

Jose Lobo - September 30, 2025 at 10:18 PM (America/Phoenix)

The SUST subcommittee recommends: revise and resubmit. The assignments need to be much more aligned with SUST LOs.

Treavor Boyer

General Studies Council Meeting

Waiting for Approval

Kimberly Singleton

April Randall

Registrar Notification

Notification

Courses Implementation

Implementation

Approval

Kelli Eberhart

Rebecca Flores

Lauren Bates

Alisha Von Kampen

Proposer Notification

Notification

Christopher Higgins

College Notification

Notification

James Corbeille

Morgan Johnson

EdPlus Notification

Notification

Sarah Shipp