Term Information

Effective Term   Autumn 2022

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

Removing the Historical and Cultural Studies Foundation GE and adding the Lived Environments Theme GE

What is the rationale for the proposed change(s)?

Today's lived environment is predominantly technological. We spend our lives inside and we are continually tethered to vast technological systems which are increasingly global in extent. We move around in cars and communicate via iPhones and computers. Practically everything we do is mediated by technology. This is not a novel phenomenon, although the scale, interconnectedness and materiality of technological environments has been historically highly variable. This course provides a sweeping history of the development of our technological environment from the use of fire and stone tools through to today's planetary technosphere.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

n/a

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	History
Fiscal Unit/Academic Org	History - D0557
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	2701
Course Title	History of Technology
Transcript Abbreviation	History of Tech
Course Description	Survey of the history of technology in global context from ancient times.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Previous Value	*Yes, Greater or equal to 50% at a distance*
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture, Recitation
Grade Roster Component	Recitation
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never

Campus of Offering   Columbus, Lima, Mansfield, Marion, Newark, Wooster
Previous Value   *Columbus, Lima, Mansfield, Marion, Newark*

Prerequisites and Exclusions

Prerequisites/Corequisites   Prereq or concur: English 1110.xx.
Exclusions
Previous Value   Not open to students with credit for 362.
Electronically Enforced   No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code   54.0101
Subsidy Level   Baccalaureate Course
Intended Rank   Freshman, Sophomore, Junior

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors
General Education course:
    Historical Study; Lived Environments
The course is an elective (for this or other units) or is a service course for other units

Previous Value

Required for this unit's degrees, majors, and/or minors
General Education course:
    Historical Study; Historical and Cultural Studies
The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes   • An understanding of the evolution of technology in human history
Previous Value

Content Topic List

- Technology in ancient/medieval China and Islamic world
- Technology in medieval Europe
- Industrialization
- Transportation
- Information technology
- Technology and empire
- Technology and gender
- Technology and environment
- Failure
- Disaster
- Biotechnology

Sought Concurrence   No
Previous Value

Attachments

- History 2701 Lived Environments Theme Form.pdf: New GE form

    (Other Supporting Documentation. Owner: Heikes,Jacklyn Celeste)

- History 2701 syllabusNewGE.docx: Syllabus

    (Syllabus. Owner: Heikes,Jacklyn Celeste)

- 2701 syllabus.docx: Updated Syllabus

    (Syllabus. Owner: Blacker,Noah)

Comments

- See Themes panel feedback sent by M Hilty on 12-20-21 *(by Vankeerbergen,Bernadette Chantal on 12/21/2021 08:26 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Heikes,Jacklyn Celeste	11/19/2021 03:36 PM	Submitted for Approval
Approved	Soland,Birgitte	11/19/2021 03:47 PM	Unit Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	12/21/2021 08:26 AM	College Approval
Submitted	Blacker,Noah	01/03/2022 07:22 AM	Submitted for Approval
Approved	Soland,Birgitte	01/03/2022 09:13 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	01/06/2022 04:14 PM	College Approval
Pending Approval	Cody,Emily Kathryn Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	01/06/2022 04:14 PM	ASCCAO Approval

HISTORY 2701: HISTORY OF TECHNOLOGY
Semester/Year
Room/Building
Date/Time

Instructor: Chris Otter
Office: Dulles Hall 263
Email: otter.4@osu.edu
Office Hours: XXXX

Course Description and Goals

Today, the environment we inhabit on a daily basis is primarily technological in nature. This course provides an in-depth history of technology from the earliest hominin stone tools and the taming of fire through to the vast technological environment that envelops and sustains us. The course is broken into five modules:

The class is organized into 5 modules:

1. The deep history of technology from 3.3 million years ago to the seventeenth century
2. The industrial revolution and large technological systems
3. Technologies of everyday life
4. The history of energy and its alternative forms
5. Computing, communication, and the technosphere

This course fulfills the general requirements and expected learning outcomes for GE themes:

GOAL 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations.

ELO 1.1: Engage in critical and logical thinking about the topic or idea of the theme.

ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme.

GOAL 2: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

ELO 2.1: Identify, describe, and synthesize approaches or experiences as they apply to the theme.

ELO 2.2: Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.

This course fulfills the specific requirements for the Lived Environments GE theme:

GOAL 1: Successful students will explore a range of perspectives on the interactions and impacts between humans and one or more types of environment (e.g. agricultural, built, cultural, economic, intellectual, natural) in which humans live.

ELO 1.1 Engage with the complexity and uncertainty of human-environment interactions.

ELO 1.2 Describe examples of human interaction with and impact on environmental change and transformation over time and across space.

GOAL 2: Successful students will analyze a variety of perceptions, representations and/or discourses about environments and humans within them.

ELO 2.1 Analyze how humans' interactions with their environments shape or have shaped attitudes, beliefs, values and behaviors.

ELO 2.2 Describe how humans perceive and represent the environments with which they interact.

ELO 2.3 Analyze and critique conventions, theories, and ideologies that influence discourses around environments.

The following tables explain how this course will satisfy the GE theme: Lived Environments:

Themes: General		
Goals	**Expected Learning Outcomes**	**Notes**
GOAL 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations.	**Successful students are able to …** **1.1** Engage in critical and logical thinking about the topic or idea of the theme.	This ELO will be satisfied by the first module and first response paper, which will focus particularly on questions of determinism v social construction.
	1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme.	This ELO will be addressed in all response papers.

	2.1 Identify, describe, and synthesize approaches or experiences as they apply to the theme.	This ELO is fulfilled in the final module, discussion, and written exercise. This module allows students to incorporate both the intellectual approaches they have learned in the class and their own experience to analysis of digital media and/or the technosphere.
GOAL 2: GOAL: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.	**2.2** Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.	This ELO is fulfilled in two ways. First, in a class discussion and questionnaire in week 10, in which students reflect on what they have learned so far. Second, in the final module, in which students reflect and assess their own relationship to vital technologies in their life today. Students will thus be better equipped to reflect on the role of technology in their lives.

Theme: Lived Environments:		
Goals	**Expected Learning Outcomes**	**Related Course Content ELOs**
GOAL 1: Successful students will explore a range of perspectives on the interactions and impacts between humans and one or more types of environment (e.g. agricultural, built, cultural, economic, intellectual, natural) in which humans live.	**Successful students are able to …** **1.1** Engage with the complexity and uncertainty of human-environment interactions.	This ELO will be tackled during the second module and respons[e] paper. Here, students are introduced to the concept of "large technological systems" and understand their complexity and uncertainty, exploring such ideas as risk, accidents, and unintended consequences.
	1.2 Describe examples of human interaction with and impact on environmental change and transformation over time and across space.	This ELO will be particularly addressed during the fourth module, in which students read about, discuss, and assess the manifold effects of the shift to a fossil-fuel economy.
GOAL 2: Successful students will analyze a variety of perceptions, representations and/or discourses about environments and humans within them.	**2.1** Analyze how humans' interactions with their environments shape or have shaped attitudes, beliefs, values and behaviors.	This ELO is particularly addressed in modules 2 and 5, in which the major theme of extractionism is introduced and analyzed.
	2.2 Describe how humans perceive and represent the environments with which they interact.	This ELO is addressed in module 2. Students will explore some of the intellectual, literary, and artistic consequences of the shift to steam power, in particular by exploring phenomena such as rapid urbanization, industrial pollution, and travel by railroad.
	2.3 Analyze and critique conventions, theories, and ideologies that influence discourses around environments.	This ELO is addressed in module 3, when students learn about the relationships between race, gender and technology.

Course Readings

There is no required textbook for this course. All readings will be posted on Carmen.

Course Papers and Assignments

1. **Attendance and Class Participation (10%)**. Students are expected to attend every class. Each lecture will include periods where the material is opened up to discussion and there will be some classes which are discussion-only. The best learning takes place when students participate, so students will receive credit for comments, observations, answers and questions.

2. **Module 1 Response Paper (10%)**. In week 3, students are given their first response paper. They are given a series of questions on technology up to around 1600. They

choose one and answer it. The paper must refer to lectures and class readings. It will be 4-5 pages long and correctly formatted.

3. **Module 2 Response Paper (20%).** In week 6, students receive their second response paper on industrialization and large technological systems.

4. **Module 3 Response Paper (20%)**. In week 9, students receive their third response paper on technology and everyday life.

5. **Module 4 Response Paper (20%)**. In week 12, students receive their fourth response paper on energy and technological choice.

6. **Module 5 Response Paper (20%)**. In week 14, students receive their final response paper on technology past, present and future.

Attendance Policy

Students are expected to attend every lecture. If you can't make a lecture, please contact me in advance with a valid excuse. More than 2 unexcused absences will result in a grade of 0 for attendance and class participation.

Grading Scale

A (93-100), A- (90-92), B+ (87-89), B (82-86), B- (80-82), C+ (77-79), C (73-76), C-(70-72), D+ (67-69), D (63-66), E (below 63).

Grades will be rounded up. For example, a 92.3 will become a 93.

Statement on Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/.

Statement on Disability

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as

soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Statement on Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.

Statement on Violence and Sexual Harassment

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu

Statement on Diversity

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Class Schedule and Readings

MODULE 1

THE DEEP HISTORY OF TECHNOLOGY

Week 1

Basic Questions and Concepts

> David Nye, "Does Technology Control Us?" and "How Do Historians Understand Technology?" in *Technology Matters: Questions to Live With* (Cambridge, Mass: MIT Press, 2007), 17-32, 49-66.

Handaxes, Fire and Farming: Human Technology from Earliest Times to the Neolithic

> Richard Wrangham, "The Cooking Hypothesis," in *Catching Fire: How Cooking Made us Human* (New York: Basic Books, 2009), 1-14.
> Henry Hodges, "The Spread of Farming and the Emergence of Embryonic Cities and of Writing (5000-3000 B.C.)," in *Technology in the Ancient World* (New York: Barnes and Noble, 1970), 53-90.

Week 2

Technology in the Ancient Near East and Mediterranean

> Steven Mithen, "A Watery Paradise in Petra," and "Building Rivers and Taking Baths," in *Thirst: Water and Power in the Ancient World* (London: Phoenix, 2013), 104-149.

Technology in Medieval Asia

> Arnold Pacey, "An Age of Asian Technology," and "Movements West," in *Technology in World Civilization* (Cambridge, Mass: MIT Press, 1990), 1-19, 38-57.

Week 3

Technology in Medieval Europe

> Lynn White, Jr., "Stirrup, Mounted Shock Combat, Feudalism and Chivalry," in *Medieval Technology and Social Change* (Oxford: Oxford University Press, 1962), 1-38.

The Printing Press, the Scientific Revolution, and the Military Revolution

> Thomas J. Misa, "Technologies of the Court, 1450-1600," in *Leonardo to the Internet: Technology and Culture from the Renaissance to the Present* (Baltimore: Johns Hopkins University Press, 2004), 1-32.

Geoffrey Parker, "The Military Revolution Revisited," in *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800*, 2nd ed. (Cambridge: Cambridge University Press, 1996), 6-44.

RESPONSE PAPER ONE HANDED OUT

MODULE 2
INDUSTRIALIZATION AND LARGE TECHNOLOGICAL SYSTEMS

<u>Week 4</u>

The First Industrial Revolution: Coal, Iron, and Mechanization

Lewis Mumford, "The Paleotechnic Phase," in Technics and Civilisation (Orlando: Harvest, 1963), 151-211.

Large Technological Systems: The Steam Railway

Ben Marsden and Crosbie Smith, "Building Railway Empires: Promises in Space and Time," in *Engineering Empires: A Cultural History of Technology in Nineteenth-Century Britain* (New York: Palgrave MacMillan, 2005), 129-177.

RESPONSE PAPER ONE HANDED IN

<u>Week 5</u>

The Second Industrial Revolution: Large Technological Systems, Electricity, and Flight

Vaclav Smil, "The Great Inheritance," in Creating the Twentieth Century: Technical Innovations of 1867-1914 and their Lasting Impact (Oxford: Oxford University Press, 2005), 3-33.

Material Transition: Plastics, Synthetics, Light Metals

Smil, "New Materials and New Syntheses," in *Creating the Twentieth Century*, 153-198.

<u>Week 6</u>

Risk, Disaster and Large Technological Systems

Charles Perrow, "Introduction," and "Aircraft and Airways," in *Normal Accidents: Living With High-Risk Technologies* (New York: Basic Books, 1984), 3-14, 123-169.

War in the Age of Large Technological Systems

Thomas J. Misa, "The Means of Destruction, 1936-1990," in *Leonardo to the Internet: Technology and Culture from the Renaissance to the Present* (Baltimore: Johns Hopkins University Press, 2004), 190-225.

RESPONSE PAPER TWO HANDED OUT

MODULE 3
TECHNOLOGY AND EVERYDAY LIFE

<u>Week 7</u>

Technology and Gender (1): Domestic Technologies

Ruth Schwartz Cowan, "An Introduction: Housework and Its Tools," and "Household Technology and Household Work Between 1900 and 1940," in *More Work for Mother: The Ironies of Domestic Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983), 3-16, 151-191.

Technology and Gender (2): Women and Computing

Marie Hicks, "Data Processing in Peacetime: Institutionalizing a Feminized Machine Underclass, 1946-1955," in *Programmed Inequality: How Britain Discarded Women Technologists and Lost its Edge in Computing* (Cambridge, Mass: MIT Press, 2017), 59-98.

RESPONSE PAPER TWO HANDED IN

<u>Week 8</u>

Technology, Race, and Imperialism

Daniel Headrick, "Technology, Imperialism and History," "The Suez Canal," and "The Submarine Cable," in *Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford: Oxford University Press, 1981), 3-15, 150-164.

Biotechnology and Reproductive Technologies

Elaine Tyler May, "Mothers of Invention," and "The Population Bomb," in *America and the Pill: A History of Promise, Peril and Liberation* (New York: Basic Books, 2011), 11-56.

Class Discussion on Sex, Gender, Race and Technology

RESPONSE PAPER THREE HANDED OUT

No class: work on response paper

Week 10

Class Discussion on Where We Have Come So Far, Plus Self-Reflection Questionnaire

RESPONSE PAPER THREE HANDED IN

MODULE 4
OIL, CARS, AND ALTERNATIVE ENERGY

Petroleum and the Rise of Car Culture

> James Flink, "The Automotive Idea," "Fordism," and "Diffusion," in *The Automobile Age* (Cambridge, Mass: MIT Press, 1988), 1-14, 40-55, 129-157.

Week 11

The History of the Electric Car

> Gijs Mom, "Substituting for the Horse, Choosing Propulsion," and "Alternative Technologies and the History of Tomorrow's Car," in *The Electric Vehicle: Technology and Expectations in the Automobile Age* (Baltimore: Johns Hopkins University Press, 2004), 1-13, 275-302.

The History of Alternative Energies: Solar, Wind, Geothermal, Nuclear

> Alexis Madrigal, "The Wind and the West," "The Solar Home of the 1950s," and "The Solar Energy Research Institute," *Powering the Dream: The History and Promise of Green Technology*, 79-98, 164-207.

Week 12

Class Debate: How and Why Did Western and Global Society End Up Running on Fossil Fuels?

RESPONSE PAPER 4 HANDED OUT

No Class: Work on 4th Response Paper

<u>Week 13</u>

MODULE 5
COMPUTATION, COMMUNICATION AND THE TECHNOSPHERE

Calculation and Computing from the Abacus to Today

Thomas Hughes, "Technology as Controls, Systems and Information," in Hughes, *Human-Built World: How to Think about Technology and Culture* (Chicago: Chicago University Press, 2004), 77-110.

Communication from the Beacon to the Internet
Claude S. Fisher, "Educating the Public," in *America Calling: A Social History of the Telephone to 1940* (Berkeley: University of California Press, 1994), 60-86.
Jon Agar, "Save the Ether," "The Nordic Way," and "Cars, Phones and Crime," in *Constant Touch: A Global History of the Mobile Phone* (London: Totem Books, 2005), 16-27, 44-51, 129-142.

RESPONSE PAPER 4 HANDED IN

<u>Week 14</u>

Digital Media in Historical Context

Sherry Turkle, "The Flight from Conversation," in *Reclaiming Conversation: The Power of Talk in a Digital Age* (New York: Penguin Books, 2015), 19-57.
Adam Alter, "The Rise of Behavioral Addiction," in *Irresistible: The Rise of Addictive Technology and the Business of Keeping Us Hooked* (New York: Penguin, 2017), 13-45.

The Technosphere: Planetary Systems and Technology Out-of-Control?

Jan Zalasiewicz, et al. "Scale and Diversity of the Physical Technosphere: A Geological Perspective," *The Anthropocene Review*, 4:1, 2017, 9-22.

RESPONSE PAPER 5 HANDED OUT

<u>Week 15</u>

Class Discussion on Digital Media and the Technosphere in Deep Historical Context

No Class – work on 5th response paper

RESPONSE PAPER 5 HANDED IN

GE THEME COURSES

Overview
Courses that are accepted into the General Education (GE) Themes must meet two sets of Expected Learning Outcomes (ELOs): those common for all GE Themes and one set specific to the content of the Theme. This form begins with the criteria common to all themes and has expandable sections relating to each specific theme.

A course may be accepted into more than one Theme if the ELOs for each theme are met. Courses seeing approval for multiple Themes will complete a submission document for each theme. Courses seeking approval as a 4-credit, Integrative Practices course need to complete a similar submission form for the chosen practice. It may be helpful to consult your Director of Undergraduate Studies or appropriate support staff person as you develop and submit your course. .

Please enter text in the boxes to describe how your class will meet the ELOs of the Theme to which it applies. Please use language that is clear and concise and that colleagues outside of your discipline will be able to follow. You are encouraged to refer specifically to the syllabus submitted for the course, since the reviewers will also have that document Because this document will be used in the course review and approval process, you should be *as specific as possible*, listing concrete activities, specific theories, names of scholars, titles of textbooks etc.

Accessibility
If you have a disability and have trouble accessing this document or need to receive the document in another format, please reach out to Meg Daly at daly.66@osu.edu or call 614-247-8412.

Course subject & number

General Expectations of All Themes

GOAL 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations.

Please briefly identify the ways in which this course represents an advanced study of the
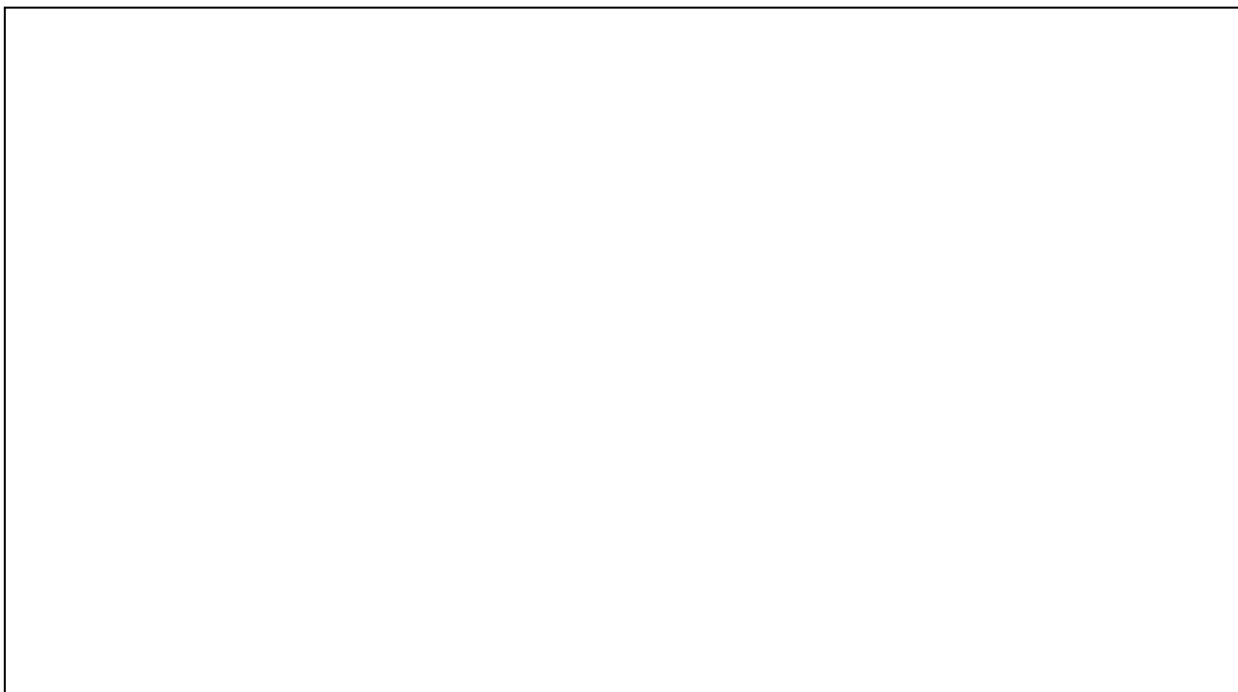In this context, "advanced" refers to courses that are e.g., synthetic, rely on research or cutting-edge findings, or deeply engage with the subject matter, among other possibilities. *(50-500 words)*

Course subject & number

ELO 1.1 Engage in critical and logical thinking about the topic or idea of the theme. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*

Course subject & number

GOAL 2: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

ELO 2.1 Identify, describe, and synthesize approaches or experiences as they apply to the theme. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*

ELO 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*

Specific Expectations of Courses in Lived Environments

GOAL 1: Successful students will explore a range of perspectives on the interactions and impacts between humans and one or more types of environment (e.g. agricultural, built, cultural, economic, intellectual, natural) in which humans live.

ELO 1.1 Engage with the complexity and uncertainty of human-environment interactions. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*

ELO 1.2 Describe examples of human interaction with and impact on environmental change and transformation over time and across space. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*
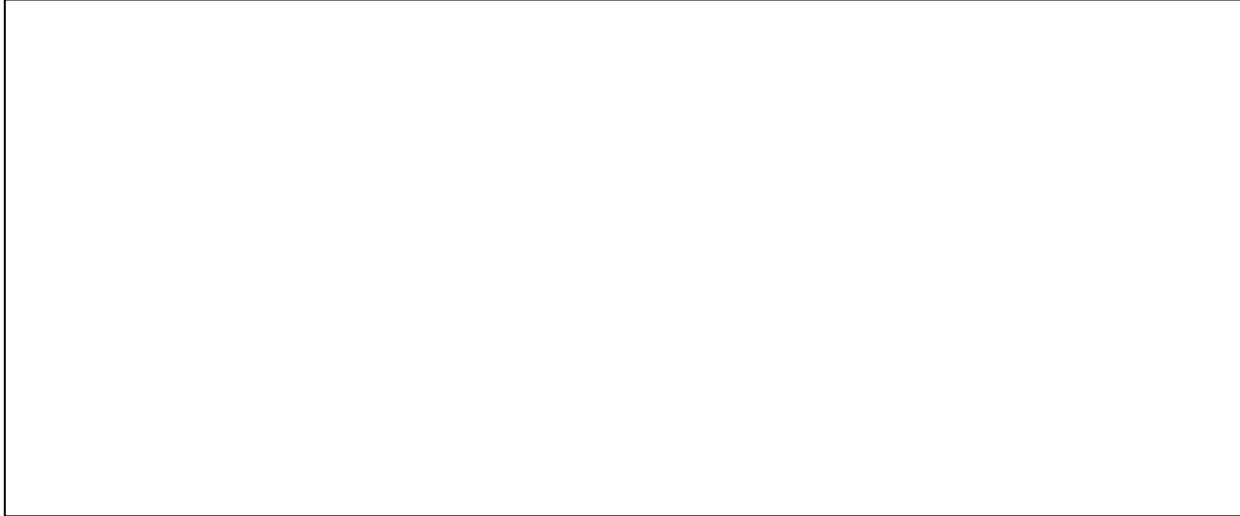
GOAL 2: Successful students will analyze a variety of perceptions, representations and/or discourses about environments and humans within them.

ELO 2.1 Analyze how humans' interactions with their environments shape or have shaped attitudes, beliefs, values and behaviors. Please link this ELO to the course goals and topics and indicate *specific* activities/ assignments through which it will be met. *(50-700 words)*

ELO 2.2 Describe how humans perceive and represent the environments with which they interact.
Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*

Course subject & number

ELO 2.3 Analyze and critique conventions, theories, and ideologies that influence discourses around environments. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. *(50-700 words)*