

Term Information

Effective Term Spring 2024
Previous Value Summer 2021

Course Change Information

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

Adding Sustainability theme to this course. Also updating writing prereq to new GE.

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

This course is a natural fit for this theme.

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 2704
Course Title Water: A Human History
Transcript Abbreviation Water History
Course Description History of human use and understandings of water from ancient to modern times, with case studies taken from different geographic locations. Sometimes this course is offered in a distance-only format.
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? Yes
Is any section of the course offered 100% 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, or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor.

Previous Value

Prereq or concur: English 1110.xx, or permission of instructor.

Exclusions

Electronically Enforced

Yes

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; Global Studies (International Issues successors); Sustainability

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; Global Studies (International Issues successors)

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 how water has impacted the course of human development

COURSE CHANGE REQUEST
2704 - Status: PENDING

Last Updated: Vankeerbergen,Bernadette
Chantal
03/25/2023

Content Topic List

- Water as sacred substance
 - Water as power
 - Irrigation
 - Water for waste and sanitation
 - Drinking water and disease
 - Floods and droughts
 - Fishing
 - Travel and discovery
 - Scientific study of water
 - Water pollution and conservation
 - Dam building and tearing down
 - Water wars and diplomacy
 - Rivers
 - Lakes
 - Ice and glaciers
- No

Sought Concurrence

Attachments

- 2704 - sustainability - Cover sheet V2.docx: Cover Sheet
(Cover Letter. Owner: Getson, Jennifer L.)
- 2704 Syllabus GE Sustainability (Breyfogle, Harris).docx: Syllabus
(Syllabus. Owner: Getson, Jennifer L.)

Comments

- Sorry about that -- that has been corrected!! *(by Getson, Jennifer L. on 03/06/2023 09:12 AM)*
- Hi Jen, Could you please check off the appropriate GEN box on the form? Nothing has been selected. Thanks! *(by Vankeerbergen, Bernadette Chantal on 03/05/2023 09:18 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Getson, Jennifer L.	03/02/2023 11:55 AM	Submitted for Approval
Approved	Soland, Birgitte	03/02/2023 09:53 PM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	03/05/2023 09:16 AM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	03/05/2023 09:18 AM	ASCCAO Approval
Submitted	Getson, Jennifer L.	03/06/2023 09:12 AM	Submitted for Approval
Approved	Soland, Birgitte	03/06/2023 09:48 AM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	03/25/2023 04:15 PM	College Approval
Pending Approval	Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	03/25/2023 04:15 PM	ASCCAO Approval



Water: A Human History

History 2704 Autumn 202x

Life is animated water

— Vladimir Vernadsky

No man ever steps in the same river twice, for it's not the same river and he's not the same man.

— Heraclitus

When the well is dry, we learn the worth of water.

— Benjamin Franklin, *Poor Richard's Almanac*

If the wars of this [20th] century were fought over oil, the wars of the next century will be fought over water – unless we change our approach to managing this precious and vital resource.

— Ismail Serageldin, World Bank

Course Information

Course times and location: TBD

Credit hours: 3

Mode of delivery: In-Person

Instructor

- **Name:** Professor Nick Breyfogle
- **Email:** breyfogle.1@osu.edu
- **Office location:** 159 Dulles Hall
- **Office hours:** TBD (and happily at other times by appointment)
- **Preferred means of communication:** My preferred method of communication for questions is email.



THE OHIO STATE UNIVERSITY

College of Arts and Sciences
Department of History

Course Prerequisites

Prereq or concurrence: English 1110.xx, or permission of instructor.

Course Description

Welcome to the wonderful world of water history!

Across human history and throughout this very diverse planet, water has defined every aspect of human life: from the molecular, biological, and ecological to the cultural, religious, economic, and political. We live on the “blue planet.” Our bodies are made up primarily of water. Without water, life as we understand it could not exist. Indeed, water stands at the foundation of most of what we do as humans: in irrigation and agriculture; waste and sanitation; drinking and disease; floods and droughts; fishing and other food supply; travel and discovery; scientific study; water pollution and conservation; dam building; in the setting of boundaries and borders; and wars and diplomacy. Water lies at the very heart of almost all world religions (albeit in very different ways). The control of water is at the foundation of the rise and fall of civilizations, with drought and flood perpetual challenges to human life. Water serves as a source of power (mills, hydro-electric dams), and access to water often defines (or is defined by) social and political power hierarchies. Water plays an important symbolic role in the creation of works of literature, art, music, and architecture, and it serves as a source of human beauty and spiritual tranquility. Thus, to begin to understand ourselves as humans—our bodies, minds, and souls; our societies, politics, economies; our past and present—we must contemplate our relationship to water.

At the same time, water resources—the need for clean and accessible water supplies for drinking, agriculture, and power production—will likely represent one of the most complicated dilemmas of the twenty-first century. The World Water Forum, for instance, reported recently that one in three people across the planet will not have sufficient access to safe water by 2030. As population grows, glaciers melt, hydrological systems change, and underground aquifers are depleted, many analysts now think that the world will fight over water more than any other resource in the coming decades. The moral and logistical question of how to ration water (who gets access and for what purposes) will be a foundational ethical question of the twenty-first century.

In this class, we will examine a selection of historical moments and themes to explore the relationship between people and water over time and place. The format of the course will be a combination of lectures, class discussions, and other forms of direct student participation. Students are expected to attend classes faithfully, participate actively, and complete the reading assignments before attending lecture and section ([more on this below](#)). Come to class on time so that you do not cause unnecessary disruption of your fellow classmates and do not leave class before time. Please feel free to ask questions during class. Students will be responsible for materials covered in lecture, discussion sections, and in all the readings.



Throughout the course, students will learn skills that will be necessary for them both as history students and in most of life's endeavors: critical and analytical thinking, clear and thoughtful writing, investigative reading, close listening, note-taking, working in groups, and public speaking.

Learning Outcomes

History courses develop students' knowledge of how past events influence today's society and help them understand how human beings view themselves. By fulfilling the requirements for this History course (completing the reading assignments, attending lectures, actively participating in the discussions, and completing the written and oral assignments), students will:

1. Acquire a perspective on history and an understanding of the factors that shape human activity, especially an understanding of the relationship between water and human life.
2. Display knowledge about the origins and nature of contemporary issues and develop a foundation for future comparative understanding.
3. Think, speak, and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts.
4. Improve their research, analytical, and writing skills; develop independent, critical thinking; and enhance communications skills through the written assignments and in-class discussions.
5. Develop an understanding of the patterns of water history, and how these patterns inform present-day environmental society, politics, and global relations.

General Education Expected Learning Outcomes

As part of the **Sustainability** Theme category of the new **General Education** curriculum, this course is designed to prepare students to be able to do the following:

Goals:

1. Successful students will analyze an important topic or idea at a more advanced and in-depth level than in the Foundations component. [Note: 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.]
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.

3. Successful students will analyze and explain how social and natural systems function, interact, and evolve over time; how human well-being depends on these interactions; how actions have impacts on subsequent generations and societies globally; and how human values, behaviors, and institutions impact multifaceted potential solutions across time.

Expected Learning Outcomes:

Successful students are able to:

- 1.1. Engage in critical and logical thinking about the topic or idea of the theme.
- 1.2. Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme.
- 2.1. Identify, describe, and synthesize approaches or experiences as they apply to the theme.
- 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.
- 3.1. Describe elements of the fundamental dependence of humans on Earth and environmental systems, and on the resilience of these systems.
- 3.2. Describe, analyze, and critique the roles and impacts of human activity and technology on both human society and the natural world, in the past, present, and future.
- 3.3. Devise informed and meaningful responses to problems and arguments in the area of sustainability based on the interpretation of appropriate evidence and an explicit statement of values.

This course fulfills these learning outcomes by offering an advanced introduction to environmental history through the sub-field of water history. Students will engage in regular class discussion and writing about the ways in which humans have interacted with bodies of water and/or how water systems (e.g., irrigation for agriculture, dams for hydropower) have shaped the development of civilizations around the world (ELO 1.1, 1.2).

Students will draw connections between course case studies and contemporary questions of global sustainability in our discussions, in-class current events presentations and in their reading reflections (ELO 2.1). Students will also use feedback on early written work and a scaffolded assignment to improve their writing in increasing complex assignments (ELO 2.2).

Lectures on civilization, irrigation and state-building will highlight the ways in which access to sufficient water supplies was fundamentally important to formation of large-scale civilizations growth and/or their downfall when they lacked sufficient access to water (ELO 3.1). In unit III the course will offer a series of case studies that highlight how humans have altered natural water systems (through drainage, redirecting rivers, or blocking the flow of water altogether with dams) and the environmental consequences of these efforts. Students will see legacies of degradation (e.g., the draining of Mexico City's basin causing the city to sink and the damming of rivers like the Colorado devastating salmon populations). Students will reflect on how hydro-technology such as systems of hydroelectricity can be

both harmful (e.g., harming salmon populations) and helpful (as a source of renewable energy) to natural world and society.

Students will analyze and critique the impacts of human activity on a particular river or lake in their eco-biography essays, and consider how human activity on their chosen lake or river has been similarly a boon and/or a bane to both the society around that body of water and the body of water and its ecosystem (ELO 3.2). Finally, students will study the roots of contemporary problems such as the sustainability of water-craving cities; the impacts of climate change-from droughts to floods to melting glaciers; the question of who "owns" the world's water (see the discussion of bottling and moving water on 10/21 and water diplomacy on 12/7) and will reflect on how historical examples might offer lessons for sustainable pathways into the future (ELO 3.3).

General Education Expected Learning Outcomes

As part of the **Historical Studies** category of the **Legacy General Education** curriculum, this course is designed to prepare students to be able to do the following:

Goals

Students recognize how past events are studied and how they influence today's society and the human condition.

Expected Learning Outcomes

1. Students construct an integrated perspective on history and the factors that shape human activity.
2. Students describe and analyze the origins and nature of contemporary issues.
3. Students speak and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts.

This course fulfills these learning outcomes by studying the how the humans have interacted with bodies of water (rivers, lakes, oceans) and have used water systems (irrigation systems, systems of hydroelectric power, etc.) to shape many aspects of lived experience (urbanization, sanitation, faith) (ELO 1). Students will trace these relationships through time studying these relationships in the earliest recorded civilizations to the present day by studying contemporary issues through their in class "Current Events in our Watery World" presentations) (ELO 2). Students will engage in discussions as well as these presentations and write critically in short and longer form essays about the history of these relationships and processes (ELO 3).

General Education Expected Learning Outcomes

As part of the **Diversity-Global Studies** category of the **Legacy General Education** curriculum, this course is designed to prepare students to be able to do the following:

Goals

Students understand the pluralistic nature of institutions, society, and culture in the United States and across the world in order to become educated, productive, and principled citizens.

Expected Learning Outcomes

1. Students understand some of the political, economic, cultural, physical, social, and philosophical aspects of one or more of the world's nations, peoples and cultures outside the U.S.
2. Students recognize the role of national and international diversity in shaping their own attitudes and values as global citizens.

This course fulfills these learning outcomes by studying how human interactions with water has shaped political power structures (ancient and relatively recent), culture and faith, and the physical world through examination of case studies in the history of the history of water from around the world (ELO 1). In particular, in their studies of water and the climate and water and war/diplomacy students will learn the importance of water as vitally important but globally shared resource (ELO 2).



Course Texts and Technologies

Required Readings

- Nicholas Breyfogle and Mark Sokolsky, eds., Readings in Water History. Cognella Inc. Publishers, 2021.
- Mary Lynn Rampolla, A Pocket Guide to Writing in History. 9th edition, 2015. Bedford/St. Martin's. ISBN 978-1457690884 [Note: please obtain the 9th edition, easily available new and used through all sorts of online bookstores. The 9th edition is cheaper than the most recent edition, and all the references to page numbers in this syllabus are for the 9th.]
- All additional readings are available on Carmen

**** How to access Readings in Water History:** Certain chapters are available in a restricted, read-online-only eBook format in the OSU library: <https://osu.on.worldcat.org/oclc/1255233451>. And a paper copy will be available on reserve at Thompson library.

If you wish to buy the book you can do so most cheaply purchased directly from Cognella Publishers (<https://store.cognella.com/82581-1B-003>). Here are the instructions that Cognella gives for how to access the course book.

When you purchase directly through their student store, you'll receive discounted pricing and expanded format options.

Interested in digital options? For Fall classes, Cognella is offering the option to add an ebook to your print purchase for \$10. If you purchase a paperback textbook, you'll receive free shipping and gain access to a PDF file of the first 30% of the material. All ebook options are immediately available upon purchase so you can begin reading and studying right away.

Purchase your course material here: <https://store.cognella.com/82581-1B-003>

These course materials include information that we will reference and use in class regularly, so you should be sure to purchase your own copy of all required materials.

Please keep in mind that our institution is strict about copyright law and course materials should never be copied or duplicated in any manner.

If you need any help with ordering from Cognella, feel free to email orders@cognella.com or call 858-552-1120.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](https://go.osu.edu/add-device) (go.osu.edu/add-device) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- [Install the Duo Mobile application](https://go.osu.edu/install-duo) (go.osu.edu/install-duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu



Grading and Faculty Response

How Your Grade is Calculated

Assignment Category	Grade Weight
Active and informed participation in discussions and in-class activities, regular attendance	30%
Short Writings Exercises (2 x 5% each)	10%
Reading Reflections	10%
Eco-Biography Paper (1500-1750 words, due in stages)	25%
Take-home Final Essay (1500-2000 words)	25%
Extra Credit Opportunities	Bonus up to 10% possible

All assignments are mandatory. If you do not submit one assignment, your final grade will be reduced by one full letter grade in addition to giving you zero for that assignment. If you do not submit two or more assignments, you will automatically fail the course.

Descriptions of Major Course Assignments

Discussion and In-Class Activities

Description: Participation and attendance are worth 30% of your final grade. You are required to attend class regularly, participate actively, and come to class prepared to discuss your ideas about the readings and listen to those of your colleagues. Active participation and informed discussion (in the form of questions and comments) necessitates that you have completed the reading assignment prior to class and have taken the time to think about what you have read. Be sure to bring a copy of the readings to each class as you will refer to the readings regularly during discussion. A pattern of unexcused absences and lateness will result in a poor grade for participation. If you are unable to attend class for a valid and verifiable reason, it is best to contact me **in advance** of the class you will miss.

Current Events in our Watery World: Once per semester, each student is required to find a story in the news about water in our world (both in the U.S. and globally) that they find interesting and important to share. It might be about drought or flood, about water and agriculture, about drinking water, about hydroelectricity, about pollution, about water and faith, leisure, transport, etc., etc. The student will then share that story with the rest of the class with a maximum 3-minute summary of what the news story

says. 1-2 students will present their new story each class meeting and you will sign up in advance for a specific class meeting.

Short Writing Assignments

Description: Students will complete two short writings assignments. Detailed instructions are available on Carmen and handed out to students. Submission dates are listed below.

- i. *Watermark* response paper (250-300 words, August 31 [5%])
- ii. *Origins* water essays summary (250-300 words, September 9) [5%]

Reading Reflections

Description: Students are required to submit six (6) reading reflections over the course of the semester. Each question/reflection should be roughly a paragraph (100-150 words each) and should relate to some critical theme addressed in the readings for that day. Reflections can be written about any readings listed below as either a “Response Reading” or a “Discussion Reading.” Please choose the readings and the dates that are most interesting, convenient to you. The reflection should be submitted by 11:59 PM the evening before we meet when that reading is due. The reflection can do a variety of things: it might include a discussion of what you found interesting in the reading, what the main thesis of the reading is, what you learned, what questions you might have or what you might want to learn more about, or the reflection might link this reading to other readings, lectures, and discussions we’ve done in class.

River or Lake Eco-Biography Essay

Description: Students will write an eco-biography of a River or Lake of their choosing (1500-1750 words). Detailed instructions are available on Carmen and handed out to students. The eco-biography will be completed in stages. Please see the dates marked below in the syllabus. The stages are (percentages are percentages of this assignment):

- i. Choose River or Lake for eco-biography [September 23]
- ii. Compile bibliography of sources for eco-biography [October 7, 10%]
- iii. Complete rough draft & submit for peer writing workshop [Nov 2, 30%]
- iv. Complete and submit final draft based upon suggested revisions of your peers in the Writing Workshop and comments from me. [Nov 30, 60%]
- v. In-class presentation of your eco-biography [Nov 30, part of your discussion grade]

Final Take-Home Essays

Description: The final essays will be take-home. The essays will synthesize the ideas and information from across the entire course to allow students to integrate and analyze what they have learned about the broad patterns of the human relationship with water and the sustainability of water systems. On December 2, students will be given a list of six possible final essay questions and detailed instructions. Students will write **detailed, analytic, and exciting** essays on **TWO (2)** of the six essay questions. Each essay will be 750-1000 words in length, for a total of 1500-2000 words for the exam. Final essays will be due December xx.

Extra Credit Opportunities

Option 1 [up to 5%]

Students interested in obtaining extra credit, up to an additional 5%, can write a 500-word book review of one of the following three water history books. The book reviews should follow the format outline in Rampolla, pp. 42-43. The three books are:

1. Nancy Langston, *Sustaining Lake Superior: An Extraordinary Lake in a Changing World*
2. Richard White, *The Organic Machine: The Remaking of the Columbia River*
3. Micah Muscolino, *The Ecology of War in China: Henan Province, the Yellow River, and Beyond, 1938-1950*

Option 2 [up to 5%]

Students interested in obtaining extra credit, up to an additional 5%, can watch the documentary ... *And Water for All* <https://www.youtube.com/watch?v=BzYxEftYEHI&t=2s> and write a 500-word essay in answer to the following questions: What are the different problems of water affordability that Ohio faces? And how have the four communities that are the focus of this film attempted to confront/solve the problems of water affordability? [Full disclosure, I was on the team who made this film, and you'll recognize the voice of the narrator.]

Academic integrity and collaboration: Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow the Chicago Manual of Style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in but no one else should revise or rewrite your work.

A Note about Writing Assignments

Like any physical or mental skill, the development of written communication skills is best done by writing and revising regularly. This class offers the opportunity to improve writing skills through regular writing opportunities and feedback.

Warning! I expect a great deal from your papers and writings. It is one of the tasks of these projects to write clearly and concisely, saying a lot in a small amount of space. You will need to write and re-write these essays many times in order to fit an insightful, intelligent, and in-depth discussion into the space allotted.

As with all work in this class, these assignments must be typed and double-spaced in 12-point font. Correct grammar and spelling and your writing style will be used to determine your grade. **Please submit all essay exams via Carmen in either Word or PDF.**

As outlined in the “Tips and Guidelines” and Rampolla’s discussion of how to write papers (Rampolla, pp. 52-82) make sure that each long answer has:

- 1) an introduction/introductory paragraph (with thesis statement),

- 2) body of several paragraphs in which you analyze and provide evidence for your overall argument, link the paragraph (and its evidence) back to your main argument, and in which each paragraph has a topic sentence, and
- 3) a conclusion/concluding paragraph.

Always be sure to explain **why** you think what you think, and to provide **detailed evidence** and examples from readings and lectures to support your arguments and assertions.

Any time you refer to an idea or quote from any of the books, readings, lectures, discussions, and PowerPoints from the class—and you will do this often in your essays, often a few times per paragraph, in order to provide necessary evidence—you **must** reference the quotation or information by placing the page number in square brackets beside the quotation/information drawn from the text. For example: [*Water History*, p. 27]. If you reference information from lecture or discussion, cite that information as follows [“Lecture Title,” Date], [Discussion, Date], and if from a PowerPoint [“PowerPoint title,” slide number].

If you use any other readings or sources of information (books, articles, websites, etc.) to help write your papers and exams, you must indicate this by including appropriate footnotes and appending a bibliography to your paper.

***** See the “Writing Tips and Guidelines” handout and Rampolla for helpful guidelines for writing papers and exams, and correct citation of sources *****

Late Assignments

Students must submit papers and exams at the scheduled times. Extensions for papers and exams are granted at my discretion to those students presenting valid and verifiable excuses (you will be expected to provide written documentation). Students who are unable to fulfill assignments as scheduled for family, religious, legal, or medical reasons must contact me **before** the due date of the assignment. Papers that are received late without just cause or without a previously approved excuse will be graded down by a full letter per day late. The pressures of other course work, employment, and extra-curricular activities do not constitute valid excuses for late assignments. Note due dates on the syllabus and plan ahead.

Instructor Feedback and Response Time

I am providing the following list to give you an idea of my intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **24 hours on days when class is in session at the university**.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **seven days**. Assignments submitted after the due date may have reduced feedback, and grades may take longer to be posted.

Grading Scale

93–100: A
 90–92.9: A-
 87–89.9: B+
 83–86.9: B
 80–82.9: B-
 77–79.9: C+
 73–76.9: C
 70–72.9: C-
 67–69.9: D+
 60–66.9: D
 Below 60: E

Grading Your Exams and Papers:

Most of your grade in this course will be based on how well you communicate in writing what you have learned. You should refer to my handout, “Tips and Guidelines,” and Rampolla, pp. 52-82. In addition, I furnish below brief descriptions of how you will earn your essay grades:

- **“C”** essays will include: an introductory paragraph that contains your thesis; a body of several paragraphs in which you offer evidence from the readings, lectures, and discussions to support your thesis; and a conclusion that reiterates your basic argument.
- **“B”** essays will include: all of the above requirements for a **“C”** essay plus more relevant data and analyses than is found in an average essay. A **“B”** paper will make a less analytical argument than an A paper, relies more on summary than analysis when providing evidence in answer to the prompt and has a few grammatical, spelling or punctuation errors.
- **“A”** essays will include: all of the above requirements for a **“B”** essay plus more data and some indication of independent or extended thought. An **“A”** paper will make a compelling argument in answer to the prompt (i.e. it has a strong and clear thesis), makes thorough use of specific and well thought out evidence, and will be free of grammatical, spelling or punctuation errors.
- As for **“D”** and **“E”** essays: usually, these essays do not include a viable thesis and/or they do not include very much information from the course. A **“D”** paper has little to no argument, misuses or misreads evidence, and is fraught with basic mechanical errors. An **“E”** paper shows no engagement with the course material or the terms of the assignment or fails to meet the basic standards of college-level work

Other Course Policies

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

Ohio State's Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's [Code of Student Conduct](#) (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- [Committee on Academic Misconduct](http://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](http://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](http://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

Copyright for Instructional Materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the

course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Your 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. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, [on-demand mental health resources](https://go.osu.edu/ccsondemand) (go.osu.edu/ccsondemand) are available. You can reach an on-call

counselor when CCS is closed at [614- 292-5766](tel:614-292-5766). **24-hour emergency help** is available through the [National Suicide Prevention Lifeline website](https://suicidepreventionlifeline.org) (suicidepreventionlifeline.org) or by calling [1-800-273-8255\(TALK\)](tel:1-800-273-8255). [The Ohio State Wellness app](https://go.osu.edu/wellnessapp) (go.osu.edu/wellnessapp) is also a great resource.

Grievances

Grade Grievances and Other Academic Complaints: Students with complaints about courses, grades, and related matters should first bring the matter to the instructor. If the student and the instructor cannot arrive at a mutually agreeable settlement, the student may take the complaint to the vice chair of the History department, David Brakke (.2), who will investigate the matter fully and attempt to resolve it. If the vice chair is involved, the student should contact the department chair, Scott Levi (.18). The student may appeal further to the College of Arts and Sciences. Any student with a grievance may seek advice from the department's grievance resource officer, Birgitte Soland (.1). For additional information see the Office of Undergraduate Education (<https://ugeducation.osu.edu/complaint-grievance-and-appeal-procedures/>) and the Office of Student Life: Student Advocacy Center (<https://advocacy.osu.edu/academic-enrollment/grade-grievance/>).

Land Acknowledgement

The Ohio State University occupies the ancestral and contemporary lands of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe, and Cherokee peoples. The university resides on land ceded in the 1795 Treaty of Greenville and the forced removal of tribal nations through the Indian Removal Act of 1830.

Accessibility Accommodations for Students with Disabilities

Requesting Accommodations

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 \(SLDS\)](#). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services.

Disability Services Contact Information

- Phone: [614-292-3307](tel:614-292-3307)
- Website: slds.osu.edu
- Email: slds@osu.edu
- In person: [Baker Hall 098, 113 W. 12th Avenue](#)

Accessibility of Course Technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)

Course Schedule

I. Introduction to Water History

Week 1

- August 24 Welcome to Water History
- August 26 Water and Water History: Introduction
- Reading: *Water History*, pp. v-x.

II. Civilization, Irrigation and (Un)Sustainable State-Building

Week 2

- August 31 Water, Irrigation, and Civilization I: The Great Water Revolutions: Ancient Civilizations, Mesopotamia, and Egypt
- Discussion Viewing: Watch the documentary *Watermark*. You can watch the documentary streaming through the library. Use this link (which requires library log in): <https://library.ohio-state.edu/record=b8094308~S7>.

*** Short Writing #1 due via Carmen before class ***

- September 2 Water, Irrigation, and Civilization II: Indus Valley, China
- Response Reading: *Water History*, pp. 23-54 (“Channels of Power: How China’s Waterways Shaped its Political Landscape”)
 - Background Reading: *Water History*, pp. 1-22 (“The Transformation of the Middle Eastern Environment” and “The Gift of the Nile”)

Week 3

- September 7 Water, Irrigation, and Civilization III: Mayans, the U.S. West
- Response Reading: “Water Law in the West” [*PDF on Carmen*]
- September 9 **Discussion**: Water Issues Today and Yesterday
- Discussion Reading: please read the following five articles from *Origins: Current Events in Historical Perspective* (origins.osu.edu), which explore

five different aspects of the history and current events of the human-water relationship.

1. [The West without Water: What Can Past Droughts Tell Us About Tomorrow?](#)
2. [Baptized in the Jordan: Restoring a Holy River](#)
3. [Dirty Water: Federal Deregulation and the Re-Polluting of America](#)
4. [Who Owns the Nile? Egypt, Sudan, and Ethiopia's History-Changing Dam](#)
5. [Dry Days Down Under: Australia and the World Water Crisis](#)

***** Short Writing #2 due via Carmen before class *****

III. Hydraulic Engineering, Socio-Environmental Transformations, and the Sustainability of Water Systems

Week 4

- September 14 Hydraulic Engineering I: Water, Machines, and Power
- September 16 **Writing, Reading, and Evidence Workshop.** *Please read Rampolla: pp. 1-31, 52-82.*

Week 5

- September 21 Hydraulic Engineering II: Draining Lands (1. the Netherlands and the drainage of northern Europe and 2. From Tenochtitlan to Mexico City)
- [Response Reading:](#) "Taming the Waterwolf: Hydraulic Engineering and Water Management in the Netherlands during the Middle Ages" [*PDF on Carmen*]
- September 23 Hydraulic Engineering III: Groundwater Civilizations, Reconstructing Rivers and Wetlands; Drying Lakes
- [Response Reading:](#) *Water History*, pp. 55-80 ("The Rhine as a World River")

***** Students need to choose a River or Lake for their Eco-Biography by the end of this week at the latest. This choice must be approved by me *****

Week 6

- September 28 Hydraulic Engineering IV: Cathedrals of Concrete: Dams and Hydroelectricity, the U.S. and the World

- Background Reading: *Water History*, pp. 81-116 (“Hitching the New South to White Coal”)

September 30

Discussion: Dams and Hydroelectricity

- Discussion Readings: *Water History*, pp. 117-128 (“Framing India’s Hydraulic Crises”) and “The American Nile and the Go-Go Years” [*PDF on Carmen*]

IV. Drinking Water, Sanitation, and the Sustainable City

Week 7

October 5

Drinking, Bathing, Sanitation in the Ancient World: Indus Valley & Rome

- Response Readings: “Drinking, Bathing, Sanitation in the Ancient World” [*PDFs on Carmen*]

October 7

The Sanitary Revolution: Water, public health, and the city in the Industrial Era

- Response Reading: “Science and the Bacteriology of Water” [*PDF on Carmen*]
- Background Reading: *Water History*, pp. 129-165 (“The Roots of the New Water Industry”)

***** Bibliography of sources for River/Lake Eco-Biography due today by 10 pm via Carmen *****

Week 8

October 12

Discussion: Water and Columbus, OH

- Discussion Reading: “The Role of Water in Shaping Columbus” and “Water and the Development of Columbus,” from *Columbus, Ohio: Two Centuries of Business and Environmental Change* [*PDFs on Carmen*]

October 14

Autumn Break: No Class

Week 9

October 19

Toxic Waters: Water Pollution and Water Protection

- Response Reading: “Polluted Waters” readings [*PDFs on Carmen*]



October 21

Discussion: Bottled Water

- Discussion Reading: *Water History*, pp. 166-190 (“The War on Tap Water” and “Fear of the Tap”) and “Tap Water: Packaging Public Water for Private Profit” [*PDF on Carmen*]

V. Water and the Climate Crisis

Week 10

October 26

Climate and Water: When the rains don't come, Drought

October 28

Climate and Water: When the rains come, Floods

Week 11

November 2

Writing, Reading, and Evidence Workshop II: *Rivers and Lakes Biographies*

***** Rough Draft of essay for River/Lake Eco-Biography due before class via Carmen. *****

November 4

Climate and Water: When the world warms, Glaciers

VI. Water and Culture

Week 12

November 9

Discussion: Water and Leisure

- Discussion Reading: *Water History*, pp. 191-248 (“The Second Discovery of the Sea” and “The Black-White Swimming Disparity in America”)

November 11

Veterans Day: No Class

Week 13

November 16

Holy Waters: Water and Religion

November 18

Discussion: *Sacred Waters*

- Discussion Reading: “Sacred Waters” readings [*PDFs on Carmen*] and *Water Stories from Around the World*:
https://issuu.com/tulikabooks/docs/water_stories



Week 14

November 23 Thanksgiving Break: No Class

November 25 Thanksgiving Break: No Class

VII. Water Wars: Lessons from the Past for avoiding an Unstable Future

Week 15

November 30 In-Class Presentations of Eco-Biographies

***** Final Version of River/Lake Eco-Biography due by midnight today via Carmen *****

December 2 Water and War

****** Final Essay Questions Handed Out in Class ******

Week 16

December 7 **Discussion:** Water as Weapon of War, Water Diplomacy

- Discussion Reading: *Water History*, pp. 249-310 (“Between War and Water,” Transboundary Water Management and Governance in the Great Lakes-St. Lawrence Basin,” and “The Impact of Hydro-Politics on the Relations of Turkey, Iraq, and Syria.”)

**Take-Home Final due
December XX before midnight**

GE Theme course submission worksheet: Sustainability

Overview

Courses in the GE Themes aim to provide students with opportunities to explore big picture ideas and problems within the specific practice and expertise of a discipline or department. Although many Theme courses serve within disciplinary majors or minors, by requesting inclusion in the General Education, programs are committing to the incorporation of the goals of the focal theme and the success and participation of students from outside of their program.

Each category of the GE has specific learning goals and Expected Learning Outcomes (ELOs) that connect to the big picture goals of the program. ELOs describe the knowledge or skills students should have by the end of the course. Courses in the GE Themes must meet the ELOs common for **all** GE Themes and those specific to the Theme, in addition to any ELOs the instructor has developed specific to that course. All courses in the GE must indicate that they are part of the GE and include the Goals and ELOs of their GE category on their syllabus.

The prompts in this form elicit information about how this course meets the expectations of the GE Themes. The form will be reviewed by a group of content experts (the Theme Advisory) and by a group of curriculum experts (the Theme Panel), with the latter having responsibility for the ELOs and Goals common to all themes (those things that make a course appropriate for the GE Themes) and the former having responsibility for the ELOs and Goals specific to the topic of **this** Theme.

Briefly describe how this course connects to or exemplifies the concept of this Theme (Sustainability)

In a sentence or two, explain how this class “fits’ within the focal Theme. This will help reviewers understand the intended frame of reference for the course-specific activities described below.

(enter text here)

As we note in our syllabus, water has defined every aspect of human life: from the molecular, biological, and ecological to the cultural, religious, economic, and political.

History 2704: Water: A Human History invites students to contemplate how human society is built on a relationship with water. At the same time, water resources—the need for clean and accessible water supplies for drinking, agriculture, and power production—will likely represent one of the most complicated dilemmas of the twenty-first century. As population grows, glaciers melt, hydrological systems change, and underground aquifers are depleted, many analysts now think that the world will fight over water more than any other resource in the coming decades. The moral and logistical question of how to ration water (who gets access and for what purposes) will be a foundational ethical question of the twenty-first century. This course seeks to highlight the ways in which we might draw lessons from history about the ways humans have and have not maintained a sustainable relationship with this vital, global, and finite resource and how those historical lessons might in turn help us chart a course into a sustainable future.

Connect this course to the Goals and ELOs shared by *all* Themes

Below are the Goals and ELOs common to all Themes. In the accompanying table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The specifics of the activities matter—listing “readings” without a reference to the topic of those readings will not allow the reviewers to understand how the ELO will be met. However, the panel evaluating the fit of the course to the Theme will review this form in conjunction with the syllabus, so if readings, lecture/discussion topics, or other specifics are provided on the syllabus, it is not necessary to reiterate them within this form. The ELOs are expected to vary in their “coverage” in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

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

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.

	Course activities and assignments to meet these ELOs
ELO 1.1 Engage in critical and logical thinking.	Students will engage in critical and logical thinking by regularly participating in substantive class discussions and writing regular reflections demonstrating that they have thought critically about course readings (reading reflection assignment). See pages 9-12 for descriptions of expectations for discussion and written assignments.
ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or ideas within this theme.	<p>This course offers an advanced study of a particular sub-field of environmental history: the history of water. Lectures will offer the students advanced and detailed case studies of the various ways humans have interacted with bodies of water and/or how water systems (e.g., irrigation for agriculture, dams for hydropower) have shaped the development of civilizations around the world.</p> <p>Course readings offer the students opportunities to read both classic works in the field, which have been compiled into a custom course reader developed for this class to readings that bring this course quite close to home (e.g., October 12-Water and the shaping of Columbus) to readings that highlight the importance of water in current events (see the reading for Sept. 9).</p>
ELO 2.1 Identify, describe, and synthesize approaches or experiences.	Students will draw connections between the course case studies which highlight historical successes and failures in developing sustainable water systems and contemporary concerns throughout

	the course--in their current events in our watery world presentations (see page 9) and in their reading reflections in particular (see page 10)
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.	Students will develop their sense of self by using feedback from early, short written work to improve and enhance their work later in the course. The two short writing assignments (Watermark response and Origins essay summary) are designed to give students early feedback to improve their writing by their eco-biographies. Students will also be given the chance to self-assess and reflect on their own work by engaging in two writing workshops → 9/16-on marshaling evidence and self-evaluating their first two written essays (page 19) and 11/2-peer reviewing drafts of the eco-biography essay). (page 21)

Example responses for proposals within "Citizenship" (from Sociology 3200, Comm 2850, French 2803):

ELO 1.1 Engage in critical and logical thinking.	<i>This course will build skills needed to engage in critical and logical thinking about immigration and immigration related policy through: Weekly reading response papers which require the students to synthesize and critically evaluate cutting-edge scholarship on immigration; Engagement in class-based discussion and debates on immigration-related topics using evidence-based logical reasoning to evaluate policy positions; Completion of an assignment which build skills in analyzing empirical data on immigration (Assignment #1)</i>
	<i>Completion 3 assignments which build skills in connecting individual experiences with broader population-based patterns (Assignments #1, #2, #3) Completion of 3 quizzes in which students demonstrate comprehension of the course readings and materials.</i>

<p>ELO 2.1 Identify, describe, and synthesize approaches or experiences.</p>	<p>Students engage in advanced exploration of each module topic through a combination of lectures, readings, and discussions.</p> <p><u>Lecture</u> Course materials come from a variety of sources to help students engage in the relationship between media and citizenship at an advanced level. Each of the 12 modules has 3-4 lectures that contain information from both peer-reviewed and popular sources. Additionally, each module has at least one guest lecture from an expert in that topic to increase students' access to people with expertise in a variety of areas.</p> <p><u>Reading</u> The textbook for this course provides background information on each topic and corresponds to the lectures. Students also take some control over their own learning by choosing at least one peer-reviewed article and at least one newspaper article from outside the class materials to read and include in their weekly discussion posts.</p> <p><u>Discussions</u> Students do weekly discussions and are given flexibility in their topic choices in order to allow them to take some control over their education. They are also asked to provide information from sources they've found outside the lecture materials. In this way, they are able to explore areas of particular interest to them and practice the skills they will need to gather information about current events, analyze this information, and communicate it with others.</p> <p>Activity Example: Civility impacts citizenship behaviors in many ways. Students are asked to choose a TED talk from a provided list (or choose another speech of their interest) and summarize and evaluate what it says about the relationship between civility and citizenship. Examples of Ted Talks on the list include Steven Petrow on the difference between being polite and being civil, Chimamanda Ngozi Adichie's talk on how a single story can perpetuate stereotypes, and Claire Wardle's talk on how diversity can enhance citizenship.</p>
<p>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.</p>	<p>Students will conduct research on a specific event or site in Paris not already discussed in depth in class. Students will submit a 300-word abstract of their topic and a bibliography of at least five reputable academic and mainstream sources. At the end of the semester they will submit a 5-page research paper and present their findings in a 10-minute oral and visual presentation in a small-group setting in Zoom.</p> <p>Some examples of events and sites: The Paris Commune, an 1871 socialist uprising violently squelched by conservative forces</p>

	<p><i>Jazz-Age Montmartre, where a small community of African-Americans— including actress and singer Josephine Baker, who was just inducted into the French Pantheon—settled and worked after World War I.</i></p> <p><i>The Vélodrome d’hiver Roundup, 16-17 July 1942, when 13,000 Jews were rounded up by Paris police before being sent to concentration camps</i></p> <p><i>The Marais, a vibrant Paris neighborhood inhabited over the centuries by aristocrats, then Jews, then the LGBTQ+ community, among other groups.</i></p>
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Goals and ELOs unique to Sustainability

Below are the Goals and ELOs specific to this Theme. As above, in the accompanying Table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The ELOs are expected to vary in their “coverage” in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

GOAL 3: Students analyze and explain how social and natural systems function, interact, and evolve over time; how human wellbeing depends on these interactions; how actions have impacts on subsequent generations and societies globally; and how human values, behaviors, and institutions impact multi-faceted, potential solutions across time.

	Course activities and assignments to meet these ELOs
<p>ELO 3.1 Describe elements of the fundamental dependence of humans on Earth and environmental systems and on the resilience of these systems.</p>	<p>Lectures on civilization, irrigation and state-building will highlight the ways in which access to sufficient water supplies was fundamentally important to formation of large-scale civilizations growth and/or their downfall when they lacked sufficient access to water.</p> <p>➔ August 31 (Page 18) Water, Irrigation, and Civilization I: The Great Water Revolutions: Ancient Civilizations, Mesopotamia, and Egypt</p> <ul style="list-style-type: none"> - Discussion and writing assignment about <i>Watermark</i> documentary <p>➔ September 2 (page 18) Water, Irrigation, and Civilization II: Indus Valley, China</p> <ul style="list-style-type: none"> • Response Reading: Water History, pp. 23-54 (“Channels of Power: How China’s Waterways Shaped its Political Landscape”) • Background Reading: Water History, pp. 1-22

	<p>(“The Transformation of the Middle Eastern Environment” and “The Gift of the Nile”)</p> <p>Students will reflect on contemporary examples of the dependency on access to water as early as their second short writing assignment in which they will read/reflect on an essay in <i>Origins: Current Events in Historical Perspective</i> on what happens when access to sufficient water occurs in case studies such as the United States West suffering from recurring droughts to the desertification of Australia.</p> <p>➔ September 9 (page 18-19)</p> <ul style="list-style-type: none"> • Discussion Reading: please read the following five articles from <i>Origins: Current Events in Historical Perspective</i> (origins.osu.edu), which explore five different aspects of the history and current events of the human-water relationship. <ol style="list-style-type: none"> 1. The West without Water: What Can Past Droughts Tell Us About Tomorrow? 2. Baptized in the Jordan: Restoring a Holy River 3. Dirty Water: Federal Deregulation and the Re-Polluting of America 4. Who Owns the Nile? Egypt, Sudan, and Ethiopia’s History-Changing Dam 5. Dry Days Down Under: Australia and the World Water Crisis <p>➔ Writing Assignment based on the above (page 10)</p> <ul style="list-style-type: none"> ii. <i>Origins</i> water essays summary (250-300 words, September 9) [5%]
<p>ELO 3.2 Describe, analyze and critique the roles and impacts of human activity and technology on both human society and the natural world, in the past, currently, and in the future.</p>	<p>In unit 3 the course particularly focuses on this ELO in which it considers a series of case studies that highlight how humans have altered natural water systems (through drainage, redirecting rivers, or blocking the flow of water altogether with dams) and the environmental consequences of these efforts. Students will see legacies of degradation (e.g., the draining of Mexico City's basin causing</p>

the city to sink and the damming of rivers like the Colorado devastating salmon populations).

➔ September 21 (page 19)

Hydraulic Engineering II: Draining Lands (1. the Netherlands and the drainage of northern Europe and 2. From Tenochtitlan to Mexico City)

- Response Reading: “Taming the Waterwolf: Hydraulic Engineering and Water Management in the Netherlands during the Middle Ages” [PDF on Carmen]

Students will reflect on how hydro-technology such as systems of hydroelectricity can be both harmful (e.g., harming salmon populations) and helpful (as a source of renewable energy) to natural world and society.

➔ Discussion: Dams and Hydroelectricity

- Discussion Readings: Water History, pp. 117-128 (“Framing India’s Hydraulic Crises”) and “The American Nile and the Go-Go Years” [PDF on Carmen]

Students will analyze and critique the impacts of human activity on a particular river or lake in their eco-biography essays, and consider how human activity on their chosen lake or river has been similarly a boon and/or a bane to both the society around that body of water and the body of water and its ecosystem.

➔ **Description:** Students will write an eco-biography of a River or Lake of their choosing (1500-1750 words). Detailed instructions are available on Carmen and handed out to students. The eco-biography will be completed in stages. Please see the dates marked below in the syllabus. The stages are (percentages are percentages of this assignment) (page 10)

ELO 3.3 Devise informed and meaningful responses to problems and arguments in the area of sustainability based on the interpretation of appropriate evidence and an explicit statement of values.

Students will study the roots of contemporary problems such as the sustainability of water-craving cities; the impacts of climate change-from droughts to floods to melting glaciers; the question of who "owns" the world's water (see the discussion of bottling and moving water on 10/21 and water diplomacy on 12/7) and will reflect on how historical examples might offer

lessons for sustainable pathways into the future.

➔ Discussion: Water as Weapon of War, Water Diplomacy (Page 22)

- Discussion Reading: Water History, pp. 249-310 (“Between War and Water,” Transboundary Water Management and Governance in the Great Lakes-St. Lawrence Basin,” and “The Impact of Hydro-Politics on the Relations of Turkey, Iraq, and Syria.”

We will also have discussions and readings that explicitly tackle local issues, giving them opportunities to analyze, interpret, and formulate their own responses to issues effecting their everyday lives.

➔ **Discussion:** Water and Columbus, OH (page 20)

- Discussion Reading: “The Role of Water in Shaping Columbus” and “Water and the Development of Columbus,” from Columbus, Ohio: Two Centuries of Business and Environmental Change [PDFs on Carmen]

➔ Discussion: Bottled Water (page 21)

- Discussion Reading: Water History, pp. 166-190 (“The War on Tap Water” and “Fear of the Tap”) and “Tap Water: Packaging Public Water for Private Profit” [PDF on Carmen]