

# ENVIRONMENTAL AND URBAN STUDIES

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Department Website: <https://environmentalstudies.uchicago.edu>

Starting in academic year 2023–24, the ENST major will be replaced with the Environment, Geography, and Urbanization (CEGU) major. All students who have declared the ENST major prior to Autumn Quarter 2023 will continue with the major requirements described here or opt into the CEGU major. All students who declare during or after Autumn Quarter 2023 or those who choose to opt into the CEGU major should visit the Environment, Geography, and Urbanization catalog page for the updated requirements and guidelines. Students in the ENST major may count any CEGU course toward their ENST major.

Urban and environmental issues are interconnected. Urbanization, climate change, biodiversity and habitat loss, pollution, food and energy needs, and issues of social justice and economic stability are among the most pressing issues facing contemporary societies. Environmental and urban processes operate at multiple scales, involving natural and human consequences that cannot be addressed solely within a single discipline. Students will gain an understanding of the interconnected natural and urban realms, building their understanding of what sustainable development means and how opportunities and challenges can be met. The major motivates a deeper theoretical understanding of urbanism and nature, as well as practical strength in addressing urban and environmental challenges. It brings a spatial and place-based perspective to the study of these challenges, using built form and environmental context as key, conceptual lenses to investigate the social, cultural, economic, and humanistic dimensions of urbanization and environment.

## PROGRAM OF STUDY

The major and minor program in Environmental and Urban Studies encourages interdisciplinary approaches to the study of environment, geography, and urbanization grounded in theoretical frameworks and research methods from the social sciences and humanities, complemented by approaches from environmental sciences, urban planning and design, and urban science. The major fosters the interrogation of the limits and possibilities of inherited approaches to the study of society and environment across space and time, and explores new epistemologies, conceptual frameworks, and research methods for the analysis of socio-environmental dynamics, especially in relation to the cascade of environmental emergencies that are reshaping the conditions for social existence across the planet.

## THEMATIC TRACKS

Students can choose between two thematic tracks: Environmental and Urban, with a strong foundational basis in the intersection of the two tracks through courses, electives, and research.

- The **Environmental Track** focuses on the study of human behavior and its relationship to environmental preservation and conservation, environmental social communication, and various connections between nature and modern humanity. This track offers an emphasis in environmental social sciences and law, sustainable development, human ecology, environmental ethics and justice, and the social and humanistic study of climate change.
- The **Urban Track** of the major focuses on human interactions with the urban built and natural environment. This track emphasizes the human experience of cities through the study of urban social sciences, urban form, urban design, urban planning, and emerging urban science.

## BA THESIS/BA CAPSTONE

All students majoring in ENST complete either a BA Thesis or BA Capstone in their fourth year. The BA Thesis is required for any student pursuing honors in the major, while all other students must complete either the BA Thesis or BA Capstone.

**BA Thesis:** The BA Thesis gives students a valuable opportunity to conduct extended research, writing, and analysis on a topic of particular significance to them. Frequently, undergraduates who write and reason well are nevertheless unaccustomed to directing their own academic inquiry from within by formulating and conducting a research project from start to finish. The program, therefore, offers significant guidance and support from faculty and preceptors in these independent projects. For this purpose, students choose expert advisers from across the University, receive mentorship from program faculty, and participate in a two-quarter BA Colloquium course sequence in their fourth year. Some theses are not only self-styled but may take students to far-off places, both geographically and intellectually. The results are often remarkable in their scope and creativity.

Any student majoring in ENST may choose to complete a BA Thesis, but it is required by those pursuing honors in the major. The BA Thesis is an extended piece of research, conducted independently by the student under advisement by a University of Chicago faculty member. While a long research paper (40–60 pages) is the traditional approach to the thesis, other formats involving alternative media or design will be considered if accompanied by a written text and are approved at the proposal stage by the Program on the Global Environment faculty.

Starting in 2022–23, in the Spring Quarter of the third year, students will attend a BA information session and brainstorming workshop, and meet with a graduate student preceptor. Students wishing to complete a BA Thesis must submit a BA Thesis application with endorsement by a faculty adviser in the Spring Quarter of their third year. If approved, students will attend Spring Quarter workshops to prepare a reading list and BA Thesis plan.

Students must enroll in ENST 29801 BA Colloquium I in the Autumn Quarter and ENST 29802 BA Colloquium II in the Winter Quarter of their fourth year. The BA Thesis is due in the third week of the Spring Quarter.

**BA Capstone:** The BA Capstone option is open to all students in the major but does not qualify any student for honors. In this track, students must complete one individual (not group-based) BA Capstone project as required within a designated Capstone course. While certain Capstone courses can be taken prior to the fourth year, they will only count towards the BA Capstone requirement if taken in the fourth year. The course-based BA Capstone project will be designed by the instructor for all students in the course, regardless of major or track. The project may be an extended research or policy paper (7,500–10,000 words), a series of writings for art or media (several 3,000–5,000 word articles), a design project in a studio course, a creative project (e.g., short film, artwork, creative writing, or podcast), or another type of project designed by the instructor.

All fourth-year students must present their BA Thesis or BA Capstone project in the final symposium held in the ninth week of the Spring Quarter of their fourth year.

For further details and important dates and deadlines related to the BA Thesis and BA Capstone, please visit the program website (<https://cegu.uchicago.edu/undergraduate-studies/enst-major-minor/>).

**ENST Honors:** In addition to a minimum GPA 3.25 overall, 3.7 in the major, students must complete the BA Thesis track and receive a grade of A in **ENST 29802 BA Colloquium II**, and a grade of A on the overall BA Thesis.

ENVIRONMENTAL AND URBAN STUDIES MAJOR REQUIREMENTS (1300 UNITS)

All students must take the Environmental and Urban Studies foundational courses:

- ENST 21201 Human Impact on the Global Environment or ENST 20011 Climate Change, Environment, and Society
- ENST 20150 Sustainable Urban Development

Starting in academic year 2023–24, ENST 21201 Human Impact on the Global Environment and ENST 21301 Making the Natural World: Foundations of Human Ecology will be replaced with new courses. Students in the ENST major who have not yet taken ENST 21201 or ENST 21301 should take the following courses instead:

- ENST 20011 Climate Change, Environment, and Society replaces ENST 21201 (all ENST majors)
- ENST 20012 The Politics of Environmental Knowledge replaces ENST 21301 (ENST majors in the Environmental Track)

FOUNDATIONAL AND METHODOLOGICAL COURSE REQUIREMENTS FOR ALL MAJORS

Choose one of the following (only ENST 20001 will be offered beginning academic year 2023–24):		100
ENST 21201	Human Impact on the Global Environment	100
ENST 20011	Climate Change, Environment, and Society	100
ENST 20150	Sustainable Urban Development	100
STAT 22000	Statistical Methods and Applications (or equivalent)	100
One of the following (or equivalent):		100
ENST 28702	Introduction to GIS and Spatial Analysis	
ENST 23517	Introduction to Critical Spatial Media: Visualizing Urban, Environmental, and Planetary Change	
Internship/field studies experience		
Total Units		600

Students may use a **maximum** of 100 units of supervised individual reading and research credit toward their primary track requirements in the major.

All courses counting towards major requirements must be taken for a quality grade.

THEMATIC TRACK REQUIREMENTS

ENVIRONMENTAL TRACK

All students in the Environmental Track must take the additional foundational course ENST 21301 Making the Natural World: Foundations of Human Ecology or ENST 20012 The Politics of Environmental Knowledge. In addition, students take three or four elective courses from an approved list of Environmental Track

courses, one elective course from an approved list of Urban Track courses, and two courses in environmental sciences. Approved courses for each requirement can be found on the ENST-approved course list. ([https://docs.google.com/spreadsheets/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3\\_Mvr4VuLDck/edit/#gid=0](https://docs.google.com/spreadsheets/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3_Mvr4VuLDck/edit/#gid=0))

Starting in academic year 2023–24, ENST 21201 Human Impact on the Global Environment and ENST 21301 Making the Natural World: Foundations of Human Ecology will be replaced with updated courses. Students in the ENST major who have not yet taken ENST 21201 or ENST 21301 should take the following courses instead:

- ENST 20011 Climate Change, Environment, and Society replaces ENST 21201 (all ENST majors)
- ENST 20012 The Politics of Environmental Knowledge replaces ENST 21301 (ENST majors in the Environmental Track)

#### Environmental Track with BA Thesis Requirements

Foundational Requirements (above)	400
Choose one of the following (only ENST 20002 will be offered beginning academic year 2023–24):	100
ENST 21301 Making the Natural World: Foundations of Human Ecology	100
ENST 20012 The Politics of Environmental Knowledge	100
3 Environmental Track electives from ENST-approved course list	300
1 Urban Track elective from ENST-approved course list	100
2 environmental sciences courses from ENST-approved course list	200
ENST 29801 BA Colloquium I	100
ENST 29802 BA Colloquium II	100
Internship/field studies experience	
Total Units	1500

#### Environmental Track with BA Capstone Requirements

Foundational Requirements (above)	400
Choose one of the following (only ENST 20002 will be offered beginning academic year 2023–24):	100
ENST 21301 Making the Natural World: Foundations of Human Ecology	100
ENST 20012 The Politics of Environmental Knowledge	100
4 Environmental Track electives from ENST-approved course list	400
1 Urban Track elective from ENST-approved course list	100
2 environmental sciences courses from ENST-approved course list	200
1 Capstone elective from ENST-approved course list (must be taken in fourth year)	100
Total Units	1500

#### URBAN TRACK

All students in the Urban Track must take **two** courses from the approved list of Urban Social Science courses, **three or four elective courses** from the approved list of Urban Track courses, and **two** elective courses from the ENST approved course list. ([https://docs.google.com/spreadsheets/u/1/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3\\_Mvr4VuLDck/edit/#gid=0](https://docs.google.com/spreadsheets/u/1/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3_Mvr4VuLDck/edit/#gid=0))

#### Urban Track with BA Thesis Requirements

Foundational Requirements (above)	400
2 Urban Social Science courses from ENST-approved course list (additional ones can be taken as Urban Track electives)	200
4 Urban Track electives from ENST-approved course list	400
1 Environmental Track elective from ENST-approved course list	100
ENST 29801 BA Colloquium I	100
ENST 29802 BA Colloquium II	100
Internship/field studies experience	
Total Units	1300

#### Urban Track with BA Capstone Requirements

Foundational Requirements (above)	400
2 Urban Social Science courses from ENST-approved course list (additional ones can be taken as Urban Track electives)	200
5 Urban Track electives from ENST-approved course list	500
1 Environmental Track elective from ENST-approved course list	100

1 Capstone elective from ENST-approved course list (must be taken in fourth year)	100
Total Units	1300

All elective courses must come from approved courses, found on the ENST-approved course list ([https://docs.google.com/spreadsheets/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3\\_Mvr4VuLDCK/edit/#gid=0](https://docs.google.com/spreadsheets/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3_Mvr4VuLDCK/edit/#gid=0)) or by approval by petition.

GEOGRAPHICAL SCIENCES MAJORS

Starting in 2022–23, the Geographical Sciences major and associated courses (GEOG) will be embedded with the Environmental and Urban Studies (ENST) major and minor program. Students interested in the previous Geographical Sciences major are encouraged to declare the ENST major. Students interested in the minor program in Geographic Information Science (GIS) should refer to the minor program page in the College Catalog (<http://collegecatalog.uchicago.edu/thecollege/geographicalstudies/>).

MAJOR DECLARATION

Students may begin a major at any time. However, the deadline to declare the Environmental and Urban Studies major is the **end of the Winter Quarter of the third year**. Students must complete the program's course of study form (<https://cegu.uchicago.edu/undergraduate-studies/enst-major-minor/petitions-and-forms/>) and meet with an ENST faculty or staff member to declare their major.

INTERNSHIP OR FIELD STUDIES PROGRAM

Students are required to participate in an internship, field study, or research assistantship with significant links to their program of study. Activities that fulfill the internship requirement include summer or academic year internships of varying lengths, research assistantships, fellowships or field studies with faculty or other academic staff, participation in working groups, completion of a Chicago Studies Quarter or the ENST Calumet Quarter, or other sustained engagements relating to the ENST program. Participation in recognized student organizations, while encouraged, does not count towards the internship requirement.

Students must complete the Internship Evaluation Form (<https://humanities-web.s3.us-east-2.amazonaws.com/college/environmentalstudies-uat/s3fs-public/2019-11/ENST%20Internship%20Placement%20Form.pdf>) prior to the **second week of the Spring Quarter** in the year they plan to graduate.

EXPERIENTIAL LEARNING OPPORTUNITIES

The Environmental and Urban Studies major offers experiential learning opportunities as designated on the list of ENST-approved courses ([https://docs.google.com/spreadsheets/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3\\_Mvr4VuLDCK/edit/#gid=0](https://docs.google.com/spreadsheets/d/1WDErGwY498DXKgzNihqfr-W95pGVpDG3_Mvr4VuLDCK/edit/#gid=0)) by "EL", the Chicago Studies Quarter, and the Chicago Studies Certificate Program. Students are encouraged to enroll in these programs, which offer immersion in the academic, experiential, and interdisciplinary study of Chicago and its region. For more information about these programs, please see the Chicago Studies page in this Catalog (<http://collegecatalog.uchicago.edu/thecollege/chicagostudies/>) or visit [chicagostudies.uchicago.edu](http://chicagostudies.uchicago.edu) (<http://chicagostudies.uchicago.edu/>).

CHICAGO STUDIES QUARTER: CALUMET

The Calumet Quarter, part of the Chicago Studies Quarter programs, offers a one-quarter, intensive, experience-based program focused on human land use in the Calumet Region just south and east of the city. It features integrated courses, projects, field trips, guest lectures, and presentations, and integrates perspectives from the sciences, humanities, and social sciences in the study of local environments and communities. The Calumet Quarter will next be offered in Spring Quarter 2024.

ENVIRONMENTAL AND URBAN STUDIES MINOR PROGRAM REQUIREMENTS

Starting in academic year 2023–24, the ENST minor will be replaced with the Environment, Geography, and Urbanization (CEGU) minor. All students who have declared the ENST minor prior to Autumn Quarter 2023 will continue with the minor requirements described here or they can choose to opt into the CEGU minor. All students who declare during or after Autumn Quarter 2023 or those who choose to opt into the CEGU minor should visit the Environment, Geography, and Urbanization catalog page for the updated requirements and guidelines.

Students who elect the minor program in Environmental and Urban Studies should meet with the program director before the end of the Spring Quarter of their third year to declare their intention to complete the minor and select appropriate courses. The approval of the program director for the minor program should be submitted to a student's College adviser by the deadline above on the Consent to Complete a Minor Program ([https://cpbus-w2.wpmucdn.com/voices.uchicago.edu/dist/a/1176/files/2019/04/Consent\\_Minor\\_Program-26nrq41.pdf](https://cpbus-w2.wpmucdn.com/voices.uchicago.edu/dist/a/1176/files/2019/04/Consent_Minor_Program-26nrq41.pdf)) form, available online or from the College adviser.

Courses in the minor (1) may not be double counted with the student's major(s) or with other minors and (2) may not be counted toward general education requirements. Courses in the minor must be taken for quality grades, and at least half of the requirements for the minor must be met by registering for courses bearing University of Chicago course numbers.

## ENVIRONMENTAL AND URBAN STUDIES MINOR REQUIREMENTS (600 UNITS)

### Requirements for Both Minor Tracks (2 courses)

Choose one of the following (only ENST 20011 will be offered beginning academic year 2023–24):		100
ENST 21201	Human Impact on the Global Environment	100
ENST 20011	Climate Change, Environment, and Society	100
ENST 20150	Sustainable Urban Development	100
Total Units		400

### Additional Requirements for Minor Environmental Track (4 additional courses)

Choose one of the following (only ENST 20012 will be offered beginning academic year 2023–24):		100
ENST 21301	Making the Natural World: Foundations of Human Ecology	100
ENST 20012	The Politics of Environmental Knowledge	100
3 Environmental Track electives from ENST-approved course list		300
Total Units		600

### Additional Requirements for Minor Urban Track (4 additional courses)

2 Urban Social Science courses from ENST-approved course list (additional ones can be taken as Urban Track electives)		200
2 Urban Track electives from ENST-approved course list		200
Total Units		400

## PETITIONS AND FORMS

Students majoring/minoring in Environmental and Urban Studies must complete all program requirements. Exceptions will be made only in extenuating circumstances and must be requested via the College's General Petition (<https://college.uchicago.edu/advising/tools-forms/>) form.

All petitions and forms related to ENST requirements are on the program website (<https://cegu.uchicago.edu/undergraduate-studies/enst-major-minor/petitions-and-forms/>). These must be submitted via the website (<https://cegu.uchicago.edu/undergraduate-studies/enst-major-minor/petitions-and-forms/>) portal during the two quarterly review windows.

The deadlines for all program petition submissions each quarter are:

- Friday of second week by 11:59 p.m. CT
- Friday of eighth week by 11:59 p.m. CT

**No petitions will be reviewed outside of these windows.**

## EMAIL LIST

Students majoring, minoring, or interested in Environmental and Urban Studies should subscribe to our email list (<http://eepurl.com/gLQL49/>) to receive announcements concerning courses, internships, fellowships, and other information connected with the major.

## IMPORTANT DATES AND DEADLINES

### Winter 2024

Week 9

**Third-years:** Deadline to submit your course of study form (<https://environmentalstudies.uchicago.edu/program-forms/>) and meet with a program faculty member or preceptor to declare your major

Week 6

**Third-years:** Attend BA Thesis/Capstone information session

## Spring 2024

Week 2

**Fourth-years:** Internship evaluation form due (<https://humanities-web.s3.us-east-2.amazonaws.com/college/environmentalstudies-uat/s3fs-public/2019-11/ENST%20Internship%20Placement%20Form.pdf>)

**Third-years:** BA Thesis application due ([https://bpb-us-w2.wpmucdn.com/voices.uchicago.edu/dist/e/3528/files/2023/02/CEGU\\_ENST-BA-Thesis-Application-v2023-02-06a.pdf](https://bpb-us-w2.wpmucdn.com/voices.uchicago.edu/dist/e/3528/files/2023/02/CEGU_ENST-BA-Thesis-Application-v2023-02-06a.pdf)). See the program website (<https://cegu.uchicago.edu/undergraduate-studies/enst-major-minor/thesis-capstone/>) for additional deadlines related to the BA Thesis. Students who are not approved for the BA Thesis must complete the BA Capstone requirements.

**Fourth-years:** BA Thesis due for evaluation

**Fourth-years:** Final BA Thesis due

Students present at the BA Thesis Symposium and BA Capstone Symposium

Week 3

Week 7

End of Spring Quarter

## ENVIRONMENTAL STUDIES COURSES

**ENST 12105. Sex and Gender in The City. 100 Units.**

This course is designed to introduce students to some of the key concerns at the intersection of gender studies and urban studies. In this course, we will take gender relations and sexuality as our primary concern and as a constitutive aspect of social relations that vitally shape cities and urban life. We will examine how gender is inscribed in city landscapes, how it is lived and embodied in relation to race, class, and sexuality, and how it is (re)produced through violence, inequality, and resistance. Over the course of the quarter, we will draw on an interdisciplinary scholarship that approaches the central question of how and why thinking about urban life in relation to gender and sex matters.

Instructor(s): Sneha Annavarapu Terms Offered: Spring

Note(s): This course counts as a Foundations course for GNSE majors

Equivalent Course(s): GLST 22105, GNSE 12105, ARCH 22105, SOCI 28088

**ENST 12300. Global Warming: Understanding the Forecast. 100 Units.**

The future of human civilization depends on its ability to avoid, or adapt to, climate change associated with fossil-fuel (carbon) emissions. With so much at stake, it is important that citizens of the world understand the science which forms the foundation of what is understood about global climate change. The learning objectives of this course are to develop understanding of: (1) the historical and pre-historical records of global climate change, (2) the Earth's carbon budget, (3) how the greenhouse effect determines temperature in Earth's atmosphere and at the land and sea surface, (4) how climate projections are made, and (5) how present-day activities, both in the scientific research realm and in the socio-economic/political realm are shaping what will happen in the future. Course activity is partitioned into lectures (given by the course instructor), weekly laboratory-section activity (run by graduate teaching assistants), outside reading, and occasional homework. Assessment leading to a course grade will focus primarily on student performance in completing laboratory exercises and on a midterm and final exam. (L)

Instructor(s): D. MacAyeal Terms Offered: Autumn

Equivalent Course(s): GEOS 13400, PHSC 13400, ENSC 13400

**ENST 12402. Life Through a Genomic Lens. 100 Units.**

The implications of the double helical structure of DNA triggered a revolution in cell biology. More recently, the technology to sequence vast stretches of DNA has offered new vistas in fields ranging from human origins to the study of biodiversity. This course considers a set of these issues, including the impact of a DNA perspective on the legal system, on medicine, and on conservation biology.

Instructor(s): A. Turkewitz, M. Nobrega Terms Offered: Winter

Prerequisite(s): BIOS 10130 or BIOS 10140. NO BIOLOGICAL SCIENCES MAJORS OR NON-BIOLOGY PRE-MED STUDENTS, except by petition.

Equivalent Course(s): BIOS 11125

**ENST 12550. Environmental Justice in Principle and Practice. 100 Units.**

Students will learn about different types of environmental injustice and how they intersect with other social problems, including segregation, housing, the devaluing of the lives of people of color, and the geographic distribution of environmental ills. Speakers from communities how have experienced environmental injustices in Chicago will be invited to share their perspectives with students in order to supplement readings from a diverse set of sources and outlooks.

Instructor(s): Ray Lodato Terms Offered: Summer

**ENST 12704. Writing Persuasion: Health and Environment. 100 Units.**

A writing-intensive course in persuasive techniques that influence opinions and attempt to change behavior. This year our focus will be on an issue that presents a challenge for persuasion theory: the environment. People are



notoriously slow to change their beliefs and behavior on environmental issues, and persuasion theory suggests reasons why this might be the case. Environmental problems ask readers to weigh costs that affect one group against benefits that might accrue to someone else. They involve time frames ranging from moments (which are easy to think and write about) to millennia (not so easy) to geological epochs, a time scale so remote from our experience as to be opaque to the imagination. Environmental problems are complex in ways that make them difficult to capture in a coherent, emotionally compelling narrative. Many individually innocuous and seemingly unrelated environmental events can converge over time to produce consequences that are counter-intuitively larger and graver than their causes. This felt disparity between actions and outcomes can violate an audience's sense of fairness, biasing the audience against a persuasive appeal.

Instructor(s): Tracy Weiner Terms Offered: Spring

Equivalent Course(s): ENGL 12704, CEGU 22704, ENGL 32704

#### **ENST 13132. Ecology in the Anthropocene. 100 Units.**

This course emphasizes basic scientific understanding of ecological principles that relate most closely to the ways humans interact with their environments. It includes lectures on the main environmental pressures, notably human population growth, disease, pollution, climate change, habitat destruction, and harvesting. We emphasize the ongoing impacts on the natural world, particularly causes of population regulation and extinction and how they might feedback on to humans. Discussion required.

Instructor(s): T. Price Terms Offered: Autumn

Prerequisite(s): BIOS 10130 or BIOS 10140. NO BIOLOGICAL SCIENCES MAJORS OR NON-BIOLOGY PRE-MED STUDENTS, except by petition.

Equivalent Course(s): CEGU 13132, BIOS 13132

#### **ENST 13300. The Atmosphere. 100 Units.**

This course introduces the physics, chemistry, and phenomenology of the Earth's atmosphere, with an emphasis on the fundamental science that underlies atmospheric behavior and climate. Topics include (1) atmospheric composition, evolution, and structure; (2) solar and terrestrial radiation in the atmospheric energy balance; (3) the role of water in determining atmospheric structure; and (4) wind systems, including the global circulation, and weather systems.

Instructor(s): T. Shaw; N. Nakamura Terms Offered: Spring

Prerequisite(s): MATH 13100-MATH 13200

Equivalent Course(s): GEOS 13300, ENSC 13300

#### **ENST 13410. Global Warming: Understanding the Forecast (Flipped Class) 100 Units.**

This course presents the science behind the forecast of global warming to enable the student to evaluate the likelihood and potential severity of anthropogenic climate change in the coming centuries. It includes an overview of the physics of the greenhouse effect, including comparisons with Venus and Mars; predictions and reliability of climate model forecasts of the greenhouse world. This course is part of the College Course Cluster program, Climate Change, Culture, and Society. This course covers the same material as PHSC 13400, but is organized using a flipped classroom approach in order to increase student engagement and learning.

Instructor(s): D. Abbot Terms Offered: Autumn Spring

Prerequisite(s): Some knowledge of chemistry or physics helpful.

Equivalent Course(s): GEOS 13410, ENSC 13410, PHSC 13410

#### **ENST 20011. Climate Change, Environment, and Society. 100 Units.**

How has natural and anthropogenic climate change shaped historical relationships between humans and their environments? Against the backdrop of planetary environmental emergencies of the early-21st century, this discussion-based course will consider various time scales of ecological, technological, social, and political transformation, including: the rise of agriculture, state formation, and civilizational collapse; the "Medieval Warm Period" and the "Little Ice Age"; the Industrial Revolution, imperialism, and the consolidation of a global fossil fuel regime; the "Great Acceleration" of the mid-20th century; the development of modern climate science; and the social, political, and technological responses to human-induced global warming. Within these time scales, we will explore past dynamics of climate change, the environment, and society through the historical study of land management, population displacement and migration, resource extraction, energy production and consumption, the global commons, as well as the role of national and international governance arrangements in mediating the unequal distribution of environmental risk across the world. Ethics, morality, equity, and justice, among other concepts, will be investigated as we analyze historical connections among socio-environmental transformations and class-based, racialized, and gendered forms of inequality.

Instructor(s): Christopher Kindell Terms Offered: Autumn Winter

Note(s): Students who have taken ENST 21201: Human Impact on the Global Environment may not enroll in this course.

Equivalent Course(s): HIST 25031, CEGU 20001, GLST 21001

#### **ENST 20012. The Politics of Environmental Knowledge. 100 Units.**

How has "nature" been understood and investigated in the modern world? Building upon diverse approaches to environmental history and philosophy, the history of science, and cultural studies, this course surveys the major frameworks through which the environment has been understood, investigated, and transformed since the origins of global modernity. Such issues are explored with reference to the mobilization of science, technology, and politics in several major areas of socio-environmental transformation in the modern world. Case studies

might explore, among other issues, empire, race, and public health; cities and infectious disease since the Black Death; the 'great enclosures' of land associated with settler colonialism; the 'Green Revolution' in industrial agriculture; strategies of resource stewardship, land conservation, terraforming, hydrological engineering and watershed protection; the politics of global warming; and current debates on urban sustainability, carbon capture and geo-engineering. The course also considers the rise and evolution of environmentalist movements and conservation strategies, and the contested visions of nature they have embraced. The course concludes by investigating the competing paradigms of knowledge, science, and environment that underpin divergent contemporary programs of environmental governance and visions of 'sustainability'.

Instructor(s): Jessica Landau Terms Offered: Winter

Equivalent Course(s): CEGU 20002, HIST 25032, GLST 21002

#### **ENST 20013. Global Environmental Change. 100 Units.**

Critical examination of contemporary environmental crises requires deep immersion in key fields of environmental science that illuminate how societal processes have transformed the earth system. This course considers the genealogy of environmental problems in the modern world with reference to, among other core issues, the role of global land-use change, fossil energy, and waste production in climate change, biodiversity loss, water and soil contamination, and infectious disease transmission. The course introduces students to the major elements of earth system science and the study of global land-use change, with particular attention to key theoretical paradigms, methodological approaches, and forms of environmental and spatial data. Students will also gain familiarity with key fields of earth systems research such as the carbon cycle, hydrological processes; the physics and chemistry of the oceans and the atmosphere; the histories and geographies of carbon emissions; and planetary boundaries.

Instructor(s): Mary Beth Pudup and Sol Kim Terms Offered: Autumn Spring

Equivalent Course(s): CEGU 20003

#### **ENST 20104. Urban Structure and Process. 100 Units.**

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past American experience as a way of developing urban policy both in this country and elsewhere.

Instructor(s): R. Vargas Terms Offered: Spring

Equivalent Course(s): CHST 20104, CRES 20104, SOSC 25100, SOCI 30104, GEOG 32700, SOCI 20104, GEOG 22700, ARCH 20104

#### **ENST 20150. Sustainable Urban Development. 100 Units.**

The course covers concepts and methods of sustainable urbanism, livable cities, resiliency, and smart growth principles from a social, environmental and economic perspective. In this course we examine how the development in and of cities - in the US and around the world - can be sustainable, especially given predictions of a future characterized by increasing environmental and social volatility. We begin by critiquing definitions of sustainability. The fundamental orientation of the course will be understanding cities as complex socio-natural systems, and so we will look at approaches to sustainability grouped around several of the most important component systems: climate, energy, transportation, and water. With the understanding that sustainability has no meaning if it excludes human life, perspectives from both the social sciences and humanities are woven throughout: stewardship and environmental ethics are as important as technological solutions and policy measures.

Instructor(s): Winter: Staff, Spring: Evan Carver Terms Offered: Spring Winter

Note(s): ENST 21201 and 20150 are required of students who are majoring in Environmental and Urban Studies and may be taken in any order.

Equivalent Course(s): PBPL 20150, GLST 20150, ARCH 20150, CEGU 20150

#### **ENST 20151. Pacific Worlds: Race, Gender, Health, and the Environment. 100 Units.**

This discussion-based course will introduce students to both classical and recent scholarship in Pacific World historiography. By adopting micro-historical, comparative, and transnational methods, students will examine the formation of three overlapping "worlds": The Antipodes, Polynesia, and the northeastern Pacific. Analyzing the myriad intersections of race, gender, health, and the environment, we will explore a range of large-scale historical processes that shaped and reshaped the Pacific between the mid-eighteenth and the mid-twentieth centuries. These processes include European exploration, settler colonialism, and indigenous sovereignty; sex, depopulation, and race science; labor, migration, and urbanization; industrialization and environmental exploitation; and imperial expansion and citizenship. The course is intended for students with an interest in the Pacific Islands, Australasia, and the North American West, as well as those interested in race, gender, health, or the environment within indigenous, immigrant, or settler colonial contexts. Required readings - which will consist of book chapters and academic articles - will be used to contextualize and critically analyze a variety of primary sources during each class session.

Instructor(s): Christopher Kindell Terms Offered: Spring

Note(s): This course counts towards the ENST 4th year Capstone requirement. Restricted to 3rd and 4th year students.

Equivalent Course(s): HLTH 20151, HIPS 20151, HIST 25030, CRES 20151, GLST 25151, GNSE 22151



**ENST 20160. Cities on Screen. 100 Units.**

How do the movies shape our collective imagination about cities? Why do we so often turn to them for visions of disaster and dystopia, on the one hand, or a futuristic utopia on the other? How has film responded to cities in the past, and how can it help investigate our present urban condition? How can film be understood as a tool for exploring what a city is? In this seminar, we will watch and discuss feature films in which the built environment or urban issues play important roles. Students will improve their film literacy -- learning not just what a film does but how it does it -- and understand applications for film in the analysis of social, spatial, temporal, and immersive phenomena, as well as how it can help inspire and communicate design more effectively.

Instructor(s): Evan Carver Terms Offered: Spring  
Equivalent Course(s): ARCH 20160, CEGU 20160

**ENST 20170. Pandemics, Urban Space, and Public Life. 100 Units.**

Much of the cultural vibrance, economic strength, and social innovation that characterizes cities can be credited to their density. Put simply, cities bring people together, and togetherness allows for complex and fruitful exchange. But togetherness also brings risks, notably from infectious disease. A pandemic feeds on propinquity. "Social distance," while a short-term public health imperative, is antithetical to the very idea of the urban. In this seminar, we will explore these competing tensions in light of current and past disease outbreaks in urban settings. Drawing on a range of texts from history, design theory, sociology, and anthropology, as well as cultural artifacts like film, graphic memoir, and photography, we will engage questions like: How are the risks of contagion balanced with the benefits of density? How are such risks distributed throughout society? What creative responses have architects, urban designers, and planners brought to this challenge? Most importantly, how can we respond constructively to the challenge of pandemic to create cities where the benefits of togetherness are maximized, perhaps even improved on compared with the pre-outbreak condition? Students will have the opportunity to propose design or policy interventions to help their own communities respond to the coronavirus/COVID-19 crisis, return to a vibrant post-pandemic life, and prepare for the pandemics of the future.

Instructor(s): Evan Carver Terms Offered: Autumn Spring  
Equivalent Course(s): GEOG 20170, PBPL 20170, HLTH 20170, CEGU 20170, ARCH 20170

**ENST 20180. Writing the City. 100 Units.**

How do great writers convey sense-of-place in their writing? What are the best ways to communicate scientific and social complexity in an engaging, accessible way? How can we combine academic rigor with journalistic verve and literary creativity to drive the public conversation about urgent environmental and urban issues? These are just some of the questions explored in WRITING THE CITY, an intensive course dedicated to honing our skills of verbal communication about issues related to the built and natural environments. Students will research, outline, draft, revise, and ultimately produce a well-crafted piece of journalistic writing for publication in the program's new annual magazine, Expositions. Throughout the quarter we will engage intensely with a range of authors of place-based writing exploring various literary and journalistic techniques, narrative devices, rhetorical approaches, and stylistic strategies.

Instructor(s): Evan Carver Terms Offered: Autumn  
Prerequisite(s): At least one ENST, GEOG, or ARCH course; or one PBPL, ARTH, ANTH, or SOCI course with an urban focus; or instructor permission. Please contact ehc@uchicago.edu with questions.  
Note(s): Restricted to 3rd and 4th years This course counts towards the ENST 4th year Capstone requirement.  
Equivalent Course(s): ARCH 20180, CEGU 20180

**ENST 20250. Introduction to Statistical Concepts and Methods. 100 Units.**

Statistical techniques offer psychologists a way to build scientific theories from observations we make in the laboratory or in the world at large. As such, the ability to apply and interpret statistics in psychological research represents a foundational and necessary skill. This course will survey statistical techniques commonly used in psychological research. Attention will be given to both descriptive and inferential statistical methodology.

Instructor(s): Heald, S. Terms Offered: Winter  
Prerequisite(s): It is recommended that students complete MATH 13100 and MATH 13200 (or higher) before taking this course.  
Equivalent Course(s): PSYC 20250

**ENST 20252. Urban Innovation: Cultural Place Making and Scenescapes. 100 Units.**

Activists from Balzac, Jane Jacobs, and others today seek to change the world using the arts. Ignored by most social science theories, these new cultural initiatives and policies are increasing globally. Urban planning and architecture policies, walking and parades, posters and demonstrations, new coffee shops and storefront churches reinforce selective development of specific cities and neighborhoods. These transform our everyday social environments into new types of scenes. They factor into crucial decisions, about where to work, to open a business, to found a political activist group, to live, what political causes to support, and more. The course reviews new case studies and comparative analyses from China to Chicago to Poland that detail these processes. Students are encouraged to explore one type of project.

Instructor(s): T. Clark Terms Offered: Spring  
Equivalent Course(s): SOCI 30252, SOCI 20252, ARCH 20252

**ENST 20253. Introduction to Spatial Data Science. 100 Units.**

Spatial data science consists of a collection of concepts and methods drawn from both statistics and computer science that deal with accessing, manipulating, visualizing, exploring and reasoning about geographical data. The course introduces the types of spatial data relevant in social science inquiry and reviews a range of methods to explore these data. Topics covered include formal spatial data structures, geovisualization and visual analytics, rate smoothing, spatial autocorrelation, cluster detection and spatial data mining. An important aspect of the course is to learn and apply open source GeoDa software.

Instructor(s): L. Anselin Terms Offered: Autumn. Cancelled - Not being offered in 2023/24

Prerequisite(s): STAT 22000 (or equivalent), familiarity with GIS is helpful, but not necessary

Equivalent Course(s): GISC 30500, SOCI 20253, GISC 20500, SOCI 30253, CEGU 20253, MACS 54000

**ENST 20300. The Science, History, Policy, and Future of Water. 100 Units.**

Water is shockingly bizarre in its properties and of unsurpassed importance throughout human history, yet so mundane as to often be invisible in our daily lives. In this course, we will traverse diverse perspectives on water. The journey begins with an exploration of the mysteries of water's properties on the molecular level, zooming out through its central role at biological and geological scales. Next, we travel through the history of human civilization, highlighting the fundamental part water has played throughout, including the complexities of water policy, privatization, and pricing in today's world. Attention then turns to technology and innovation, emphasizing the daunting challenges dictated by increasing water stress and a changing climate as well as the enticing opportunities to achieve a secure global water future.

Instructor(s): Seth Darling Terms Offered: Winter

Prerequisite(s): None

Equivalent Course(s): HIPS 20301, MENG 20300, HIST 25426, ANTH 22131, GLST 26807

**ENST 20336. Researching Chicago's Historic Parks and Neighborhoods. 100 Units.**

Often considered a "City of Neighborhoods," Chicago has a fascinating network of community areas that were shaped by historical events and developments. Many of the city's neighborhoods include parks that have their own significant architectural, landscape and social histories. The class will introduce students to some of Chicago's most interesting historic neighborhoods and parks; expose them to key regional digital and on-site archives; and instruct them in appropriate methodologies for conducting deep research on sites and landscapes, with a special focus on Chicago's historic park system. Students will utilize an array of resources including Sanborn maps, US Census records, historic plans, photographs, and archival newspapers to provide in-depth studies of unpreserved sites. The course will also expose students to historic preservation policies, methodologies, and guidelines to provide practical strategies for preserving lesser-known places and sites. As a Chicago Studies class, its pedagogy will also include excursions into the city, engagement with local guest speakers, and research in relevant Chicago-area archives/special collections.

Instructor(s): Staff Terms Offered: Winter

Note(s): This special class is offered in conjunction with the University's ongoing commemoration of the 200th anniversary of the birth of Frederick Law Olmsted, the father of American landscape architecture. Olmsted and his sons, the Olmsted Brothers, had a substantial influence on the city's South Side, including the University's campus and the development of small parks that provided services to dense immigrant neighborhoods in the early 20th century. The class will include field trips during some Friday class sessions.

Equivalent Course(s): HIST 27312, CEGU 20336, CHST 20336

**ENST 20506. Cities, Space, Power: Introduction to urban social science. 100 Units.**

This lecture course provides a broad, multidisciplinary introduction to the study of urbanization in the social sciences. The course surveys a broad range of research traditions from across the social sciences, as well as the work of urban planners, architects, and environmental scientists. Topics include: theoretical conceptualizations of the city and urbanization; methods of urban studies; the politics of urban knowledges; the historical geographies of capitalist urbanization; political strategies to shape and reshape the built and unbuilt environment; cities and planetary ecological transformation; post-1970s patterns and pathways of urban restructuring; and struggles for the right to the city.

Instructor(s): N. Brenner Terms Offered: Winter. Not offered in 2023-2024 academic year.

Equivalent Course(s): CHSS 30506, HIPS 20506, CEGU 20506, PLSC 30506, PLSC 20506, CCCT 30506, SOCI 30506, KNOW 30506, CHST 20506, ARCH 20506, SOCI 20506

**ENST 20519. Spatial Cluster Analysis. 100 Units.**

This course provides an overview of methods to identify interesting patterns in geographic data, so-called spatial clusters. Cluster concepts come in many different forms and can generally be differentiated between the search for interesting locations and the grouping of similar locations. The first category consists of the identification of extreme concentrations of locations (events), such as hot spots of crime events, and the location of geographical concentrations of observations with similar values for one or more variables, such as areas with elevated disease incidence. The second group consists of the combination of spatial observations into larger (aggregate) areas such that internal similarity is maximized (regionalization). The methods covered come from the fields of spatial statistics as well as machine learning (unsupervised learning) and operations research. Topics include point pattern analysis, spatial scan statistics, local spatial autocorrelation, dimension reduction, as well as spatially explicit hierarchical, agglomerative and density-based clustering. Applications range from criminology and public health to politics and marketing. An important aspect of the course is the analysis of actual data sets by means of open source software, such as GeoDa, R or Python.

Instructor(s): P. Amaral Terms Offered: Winter

Prerequisite(s): STAT 22000 or equivalent; SOCI 20253/30253 (or equivalent) Introduction to Spatial Data Science required.

Equivalent Course(s): MACS 30519, GISC 20519, GISC 30519, SOCI 20519, SOCI 30519

**ENST 20521. Sociology of urban planning: cities, territories, environments. 100 Units.**

This course provides a high-intensity introduction to the sociology of urban planning practice under modern capitalism. Building upon urban sociology, planning theory and history as well as urban social science and environmental studies, we explore the emergence, development and continual transformation of urban planning in relation to changing configurations of capitalist urbanization, modern state power, sociopolitical insurgency and environmental crisis. Following an initial exploration of divergent conceptualizations of "planning" and "urbanization," we investigate the changing sites and targets of planning; struggles regarding the instruments, goals and constituencies of planning; the contradictory connections between planning and diverse configurations of power in modern society (including class, race, gender and sexuality); and the possibility that new forms of planning might help produce more socially just and environmentally sane forms of urbanization in the future.

Instructor(s): N. Brenner Terms Offered: Winter

Equivalent Course(s): PBPL 20521, GEOG 20521, ARCH 20521, KNOW 30521, CHST 20521, PPHA 30521, SOCI 30521, SOCI 20521, PLSC 30521, CEGU 20521, PLSC 20521

**ENST 20550. Computing for the Social Sciences. 100 Units.**

This is an applied course for social scientists with little-to-no programming experience who wish to harness growing digital and computational resources. The focus of the course is on learning the basics of programming and on generating reproducible research. Topics include coding concepts (e.g., data structures, control structures, functions, etc.), data visualization, data wrangling and cleaning, version control software, exploratory data analysis, etc. Students will leave the course with basic computational skills implemented through many methods and approaches to social science; while students will not become expert programmers, they will gain the knowledge of how to adapt and expand these skills as they are presented with new questions, methods, and data. The course will be taught in R.

Instructor(s): Jean Clipperton Terms Offered: Autumn Spring Winter

Note(s): MACS students have priority.

Equivalent Course(s): MACS 20500, SOSC 26032, MACS 30500, MAPS 30500, SOCI 20278, CHDV 30511, PLSC 30235, SOCI 40176, PSYC 30510

**ENST 20704. Traveling Studio: From Detail to City at Taliesin. 100 Units.**

The course is designed to immerse students in architectural drawing and making at a site of prolific drawing and making past, in a remarkable environment both natural and built. Working both individually and together, we will use our surroundings at Taliesin to tackle five short projects, increasing in scale, from the tiniest architectural details up through consideration of city and region. As part of the latter portion of the course, we will also consider the Driftless region of Wisconsin specifically, and issues facing this unique rural area in 2023, including environmental challenges, questions of housing, and rural foodways. Typical days will include studio time in the Hillside studio, ample exploration of the Taliesin grounds both programmed and free, conversations with guests familiar with the work of Frank Lloyd Wright and others who spent time at Taliesin, excursions across the Driftless region (including additional buildings designed by Wright and others close to him), and a modest amount of work helping to maintain the Taliesin site.

Terms Offered: Autumn

Equivalent Course(s): CEGU 20704, ARTH 30704, ARTH 20704, ARCH 20704

**ENST 20806. Remaking the Prairie: The Cultural Politics of Ecological Restoration. 100 Units.**

This course uses the Midewin National Tallgrass Prairie as a case study to understand the environmental and cultural challenges of ecological restoration. In essence, we will look at the Midewin as an environmental humanities problem, asking the questions: What does it mean to restore a landscape or an ecosystem? What values or biases are in place in ecological restoration and how do we overcome them? The Midewin National Tallgrass Prairie, managed by the US Forest Service, is a restored prairie on the former site of the WWII era Joliet Army Ammunition Plant. Throughout the September Term, we will visit the site several times to meet with Forest Service employees, participate in environmental restoration work, collect data for ecological studies, and learn more about the complicated history of the prairie and efforts to restore it. Analysis of the Midewin National Tallgrass Prairie and ecological restoration more broadly will be done from an interdisciplinary lens that takes seriously the sometimes-competing stakes of indigeneity, agriculture, settler colonialism, ecology, history, militarism, and recreation, among others.

Instructor(s): Jessica Landau Terms Offered: Summer

Equivalent Course(s): CEGU 20806, HIPS 20608, CHST 20806

**ENST 21020. Is Humanity Doomed? 100 Units.**

This class explores the possibilities and perils of continued human existence on Earth. Taking climate change as a launching point, the class investigates the features of collective human life that make its prolonged existence a perennial challenge. The texts include those on challenges unique to the environment, like Stephen Gardiner's *A Perfect Moral Storm* and Jared Diamond's *Collapse*, as well as philosophical and religious theories of progress and their skeptics, centering class discussions on sources of hope and reasons for doubt about the human future.

A central question of the course is whether climate change is unique or whether there are characteristics of human beings and human society (freedom, sin, tragedy) that make threats like it inevitable.

Instructor(s): David Barr Terms Offered: Spring

Equivalent Course(s): RLST 21020

#### **ENST 21201. Human Impact on the Global Environment. 100 Units.**

The goal of this survey course is to analyze the impact of the human enterprise on the world that sustains it. Topics include human population dynamics and historical trends in global impact, with most of the course focusing on how humans have altered the Earth system through a variety of processes (including climate change, air, water, nutrient cycling, pollution/novel entities, biodiversity, and land use). We read and discuss diverse sources, write short analytical papers, and a final argument based research paper.

Instructor(s): Christopher Kindell Terms Offered: Spring

Note(s): ENST 21201 and 21501 are required of students who are majoring in Environmental and Urban Studies and may be taken in any order.

Equivalent Course(s): CEGU 21201

#### **ENST 21207. Ecocentrism and Environmental Racism. 100 Units.**

The aim of this course is to explore the tensions and convergences between two of the most profoundly important areas of environmental philosophy. "Ecocentrism" is the view that holistic systems such as ecosystems can be ethically considerable or "count" in a way somewhat comparable to human persons, and such a philosophical perspective has been shared by many prominent forms of environmentalism, from Aldo Leopold's Land Ethic to Deep Ecology to the worldviews of many Native American and Indigenous peoples. For some prominent environmental philosophers, a commitment to ecocentrism is the defining test of whether one is truly an environmental philosopher. "Environmental Racism" is one of the defining elements of environmental injustice, the way in which environmental crises and existential threats often reflect systemic discrimination, oppression, and domination in their disproportionate adverse impact on peoples of color, women, the global poor, LGBTQ populations, and Indigenous Peoples. Although historically, some have claimed that ecocentric organizations such as Greenpeace have neglected the problems of environmental injustice and racism in their quest to, e.g., "save the whales," a deeper analysis reveals a far more complicated picture, with many affinities and alliances between ecocentrists and activists seeking environmental justice. (A)

Instructor(s): Bart Schultz Terms Offered: Spring

Equivalent Course(s): CRES 21207, PHIL 21207, PLSC 21207, HMRT 21207, MAPH 31207, CHST 21207

#### **ENST 21301. Making the Natural World: Foundations of Human Ecology. 100 Units.**

What's natural about nature? Humans have "made" the natural world both materially, through millennia of direct action in and on the landscape, and conceptually, through the creation of various ideas about nature, ecosystem, organism, and ecology. In this course we will consider how the conceptual underpinnings of contemporary Western notions of nature, environment, balance, power and race are intertwined. We will trace this trajectory using the lens of the historical development of the field of ecology, then broaden our view to consider worldviews and ontologies about the environment from non-Western cultures. How then do these worldviews influence attitudes and policies towards land, environment, and its stewardship? Taking examples from current environmental topics (e.g. land rights, environmental justice, park access, conservation, extinction) we will evaluate the extent and character of human entanglement with the environment. Throughout the course student voices will be prominent in the many discussion-based class sessions.

Instructor(s): Christopher Kindell Terms Offered: Winter. Winter

Equivalent Course(s): ANTH 21303, CEGU 21301

#### **ENST 21501. Genealogies of Environmental Organizing and Activism. 100 Units.**

This course explores how organizations-civic, private, governmental-working in the field of environmental advocacy construct, deploy and are shaped by distinct discourses governing relationships between nature and society. The environment is a field of social action in which organizations attempt to effect change in large domains like resource conservation, access, stewardship, and a basic right to environmental quality in everyday life. The work of effecting change in these complex domains can assume a variety of forms including public policy (through the agencies of the state), private enterprise (through the agency of the market), 'third sector' advocacy (through the agency of nonprofit organizations) and social activism (through the agency of social movements and community organizations). State, market, civil society and social movement organizations are where ideas are transmitted from theory to practice and back again in a recursive, dialectical process. These contrasting forms of organization have different histories, wellsprings and degrees of social power. Moreover, they bring different epistemologies to their claims about being legitimate custodians of nature-that is to say they can be understood genealogically. As such, organizations working to effect environment change are at once animated by and constitutive of distinct discourses governing the relationships between nature and society. The course explores how those distinct discourses are associated with a suite of different organizational realms of social action; the goal is trying to connect the dots between discursive formations and organizational forms.

Instructor(s): Mary Beth Pudup Terms Offered: Autumn

Note(s): This course counts towards the ENST 4th year Capstone requirement.

Equivalent Course(s): GLST 21501, MAPS 31101, HMRT 21501, CEGU 21501, SSAD 41501, SSAD 21501, CEGU 31501

**ENST 21502. Problems of Community. 100 Units.**

Communities can be considered the locus of social problems and the wellspring of solutions to social problems. Communities are the "object of study" in social science research and communities often fiercely struggle for their own self-representation. This course examines social science approaches to the study of community, many of them pioneered in Chicago, and considers how the concept of community is invoked and deployed to draw boundaries of belonging and exclusion.

Instructor(s): STAFF Terms Offered: Winter

Equivalent Course(s): CEGU 21502

**ENST 21503. Practicing Community Studies. 100 Units.**

What does it mean to "study the community" and what knowledge can be gained from that endeavor? This course explores epistemologies and ethics of engaging in community studies while developing skills, methods, and the requisite intellectual stance for learning in, about, and from contemporary communities in Chicago and beyond.

Instructor(s): STAFF Terms Offered: Spring

Equivalent Course(s): CEGU 21503

**ENST 21504. Theory and Practice of Urban Agriculture. 100 Units.**

Food cultivation within the city-urban agriculture is a vast and fascinating terrain of social practice associated with diverse historical geographies. The course examines urban agriculture as a global phenomenon with an intensely local presence by incorporating experiential education with Chicago-based projects that are exemplars in the contemporary urban food movement.

Instructor(s): STAFF Terms Offered: Spring

Equivalent Course(s): CEGU 21504

**ENST 21800. Economics and Environmental Policy. 100 Units.**

This course combines basic microeconomic theory and tools with contemporary environmental and resources issues and controversies to examine and analyze public policy decisions. Theoretical points include externalities, public goods, common-property resources, valuing resources, benefit/cost analysis, and risk assessment. Topics include pollution, global climate change, energy use and conservation, recycling and waste management, endangered species and biodiversity, nonrenewable resources, congestion, economic growth and the environment, and equity impacts of public policies.

Instructor(s): S. Shaikh Terms Offered: Autumn

Prerequisite(s): ECON 19800 or higher, or PBPL 20000

Note(s): Not offered in Autumn of the 2020-21 academic year.

Equivalent Course(s): CEGU 21800, ECON 16520

**ENST 21900. Historical Geography of the United States. 100 Units.**

This course examines the historical and geographical roots of American regional diversity and national spatial organization, from 1500 to 1920, and asks why American regions have developed and retained distinctive characteristics and what consequences this has had for contemporary society. These issues are pursued through an examination of colonization processes, economic development, spatial differentiation, settlement patterns and the changing role of cities. The emphasis is on the kind and quantity of European cultural transfer, physical changes wrought by colonization, the modification of natural environments, the conquest of distance, and the general approach of American society to the uses of space. This course requires no prerequisites. There will be an all-day field trip in the Chicago region.

Instructor(s): Michael Conzen Terms Offered: Autumn

Note(s): Restricted to 3rd and 4th years This course counts towards the ENST 4th year Capstone requirement.

This course offered in the Autumn Quarter of even-numbered years

Equivalent Course(s): GEOG 31900, CHST 21900, HIST 28800, HIST 38800, CEGU 21900

**ENST 22101. Changing America in the Last 100 Years. 100 Units.**

This course examines the economic and social forces that have transformed the critical character and performance of the major regions of the United States since the 1920s, and how the interactions between regions has profoundly shifted. The course completes the historical sweep of American geographical development following on from the Autumn course, Historical Geography of the United States, but can be taken as an independent course. Emphasized are the ways in which socio-cultural, technological and economic changes have played out differently across continental space, and produced variable environmental consequences. An all-day field trip in the Chicago region visits sites that reflect some of the larger forces at work at the intra-regional scale.

Instructor(s): Michael Conzen Terms Offered: Winter

Note(s): Restricted to 3rd and 4th years This course counts towards the ENST 4th year Capstone requirement.

Equivalent Course(s): HIST 37506, ARCH 27506, HIST 27506, CEGU 22101, GEOG 32101, CHST 22101

**ENST 22102. Methods in Environmental Humanities. 100 Units.**

What are the environmental humanities and how do their approaches differ from those of other humanistic disciplines? In answering these questions, this course will equip students with tools to reckon with some of our planet's most pressing concerns, including climate change and biodiversity loss, and emphasize the importance of approaching these issues through an interdisciplinary lens that includes humanistic lines of inquiry. Throughout the course, students will explore different methods used in the environmental humanities to gain an understanding of this emergent discipline as well as learn tools and methods they can employ in their



own scholarship. Rather than work on long term research projects, however, students will sample and practice a variety of approaches to environmental humanities research and apply them to targeted case studies. This will include approaches from fields such as art history, Indigenous studies, animal studies, comparative literature, and history, among others.

Instructor(s): Jessica Landau Terms Offered: Winter

Equivalent Course(s): CEGU 22102

**ENST 22119. Ecofeminisms: Feminist Theory and Climate Justice. 100 Units.**

Ecofeminism, a term coined in 1974, was at the height of its popularity in the late twentieth century. It merged feminist concerns with environmental ones by highlighting the ways both nature and women had been continually oppressed by patriarchal institutions. But by the early 2000s, ecofeminism was essentially a dead movement, attacked for being too essentialist and not inclusive enough. Interestingly, global warming and climate change movements also seemed to lose steam around the same time. Yet, as many scientists and scholars now recognize, climate change is neither gender neutral nor does it affect all people equally; women and people of color often suffer the most when extreme climate events strike. This course examines theories of ecofeminism from the late 20th century to the present to draw connections between feminist struggles, racial inequalities, human rights concerns, and climate change. Through our readings, films, discussions, presentations, and research projects, we will track some common threads between feminist theories and climate justice like access to water, food, and healthcare; reproductive rights and reproductive justice; and displacement due to climate change. Some questions we will interrogate are: How is climate justice a feminist issue? How is environmental degradation and climate change a human rights issue? Do we need a new term, like intersectional environmentalism, for ecofeminism?

Instructor(s): Caroline Heller Terms Offered: Spring

Note(s): This course counts as a foundations course for GNSE majors

Equivalent Course(s): HMRT 12119, GNSE 12119

**ENST 22147. Intro to Genres: The River's Running Course. 100 Units.**

Rivers move—over land, through history, among peoples—and they make: landscapes and civilizations. They are the boundaries on our maps, the dividers of nations, of families, of the living and the dead, but they are also the arteries that connect us. They are meditative, meandering journeys and implacable, surging power. They are metaphors but also so plainly, corporeally themselves. In this course, we will encounter creative work about rivers, real and imaginary, from the Styx to the Amazon. Through poetry, fiction, nonfiction, and drama, we will consider what rivers are, what they mean to us, and how they are represented in art and literature. Rivers will be the topic and inspiration for our own creative writing, too. The goal for this course is to further your understanding of creative writing genres and the techniques that creative writers employ to produce meaningful work in each of those genres. You will also practice those techniques yourselves as write your own creative work in each genre. Our weekly sessions will involve a mixture of discussions, brief lectures, student presentations, mini-workshops and in-class exercises. Most weeks, you will be responsible for a creative and/or critical response (300-500 words) to the reading, and the quarter will culminate in a final project (7-10 pages) in the genre of your choice, inspired by the Chicago River.

Instructor(s): Stephanie Soileau Terms Offered: Autumn

Prerequisite(s): Open bid through my.uchicago.edu. Attendance on the first day is mandatory.

Equivalent Course(s): CRWR 12147, CHST 12147

**ENST 22205. Taking Back the Land: Anthropology, Geography & Ethnoscience for Land Justice. 100 Units.**

In a world of settler property regimes, corporate holdings and national parks, how are communities reclaiming the lands they've lost? National parks overturned; indigenous community conservation areas established; food deserts restored with expanding networks of community gardens: the last decade has seen an eruption of opportunities for land justice amidst continuing challenges from ongoing processes of capitalism, colonialism, and climate change. This course offers a holistic anthropological approach to land justice activism that begins with strategies for building collaborations, before looking at tools to help assert claims over territories and resources, and finally, exploring ways of restoring reclaimed lands with new foodways, forests, and community governance. Alongside critical readings and guest teachings from land justice activists in Southeast Asia and North America, the course will examine how a diversity of citizen science tools are being combined with indigenous, anthropological, geographic, and ecological methods to formulate a toolkit for land justice activism and community land/resource management. From counter mapping territory with remote sensing to effective strategies used to block mining projects; from indigenous conservation planning to guerrilla gardening: this course will explore different approaches to reclaiming lands and resources.

Instructor(s): Marshall Kramer Terms Offered: Spring

Equivalent Course(s): GLST 22205, ANTH 22206, CRES 23305, MAPS 32205, CHSS 32205, HIPS 22205, ANTH 32207

**ENST 22207. Posthuman Becoming. 100 Units.**

This course introduces recent developments and advanced approaches in critical posthumanist thought. We will explore emerging theories and practices that renegotiate the human condition through critical inquiry into posthuman desires and the complicated relationship between human and non-human 'others,' including animals, plants and micro-organisms, waste and toxins, artificial life, and hyperobjects. By engaging diverse viewpoints that map the stakes of a non-anthropocentric politics of culture, such as new materialism, object-oriented ontology, and speculative realism, but also eco-feminism, queer performativity, and Indigenous epistemology,



we will explore emerging techniques of mediation, communication, and representation that surrender to the relational identities of a posthuman becoming. A central premise of this exploration are post-disciplinary ways of knowing that make such imaginaries visible: in addition to discussing a substantial body of contemporary scholarship from the arts, humanities, and humanistic social sciences, the course includes a studio module that introduces a variety of research-creation methodologies for experimentation with curatorial, artistic, and activist practices.

Instructor(s): Andre Uhl Terms Offered: Spring

Equivalent Course(s): ARTV 30702, MAAD 12208, ANTH 32208, KNOW 32208

#### **ENST 22211. Riding about the South Side. 100 Units.**

This course is based on bicycling through the South Side neighborhoods surrounding the University of Chicago. There will be some readings, but the primary input will be from riding-from seeing things at street level and speaking with people who are committed to living in places that often have been abandoned by others. We can read and theorize about the community surrounding us, but the premise in this class is that our work should begin with experience in that world, with direct contact and in conversation. My approach in this class is less to teach than to lead you to where things are waiting to be learned and to people who can teach you about their world better than I. Some of the themes we will cover include land rights and exploitation, architecture, town planning, placemaking, urban farming and ecology, sustainability, grass roots organization, labor rights and exploitation, immigration, social work, and street art. Each ride is organized around a set of key concerns and includes a conversation with a local insider who can help us better understand them.

Instructor(s): William Nickell Terms Offered: Autumn

Equivalent Course(s): CHST 22211, CEGU 22211, KNOW 22211, ARCH 22211

#### **ENST 22300. South Side Ecologies. 100 Units.**

South Side Ecologies is a project based course offered every other spring on an environmental topic of concern to communities on the South Side of Chicago. During the first half of the class we will use scholarly and popular sources to understand the background and extent of the issue, while the second half will engage with expert partners to execute a project in their area of need. Due to the experiential nature of this course, while we will strive to have class meetings in the official time and place, students should expect they may need to attend meetings, interviews, guest lectures, or other activities at other times and locations during the week. Every effort will be made to accommodate the needs and schedules of students in the course.

Instructor(s): Alison Anastasio Terms Offered: Spring. Every other spring. Not offered in Spring 2021.

Equivalent Course(s): CHST 22300

#### **ENST 22301. Digital Geographies of Climate Justice. 100 Units.**

Struggles for climate and environmental justice are increasingly mediated by digital technologies and geospatial data, especially in the Global South. In Amazonia, for example, the plight of indigenous groups bearing the brunt of ecological dispossession and political violence by deforestation is frequently represented through remotely-sensed data showing time-series of canopy loss; in turn, these data are often prompted, groundtruthed, and mobilized by indigenous communities and affiliated activists in legal and political campaigns. In parallel, across the world ocean, countries across the Global South- from Papua New Guinea and Ecuador to Ghana- are partnering with watch-dog organizations using satellite imagery and GPS data to track illegal fishing and human rights abuses at sea, acting as an auxiliary ecological police force to identify and provide data to prosecute offending vessels. The proliferation of these digital geographic technologies and techniques pose a number of complex questions. Drawing on contemporary cases, experimental projects in "forensic" approaches to activism, and recent work in critical geography, aesthetics, STS, and political theory, this seminar will attempt to map out these digital geographies of climate justice as they emerge. The course will also involve introduction to entry-level remote sensing + GIS workflows (no prior experience required) in a pair of intensive workshops led by guest lecturers/practitioners.

Instructor(s): Alexander Arroyo Terms Offered: Spring

Note(s): Undergraduate/Graduate Course - only open to 3rd and 4th year undergraduate students. This course counts toward the 4th year ENST capstone requirement.

Equivalent Course(s): MAPH 32301, GLST 29301, CEGU 22301, CEGU 32301

#### **ENST 22311. Berlin: Conflict, Community, and Sustainability. 100 Units.**

Berlin: What makes a city? Who decides how a city grows and changes, and what criteria do they use - should it be beautiful, efficient, sustainable, open, just? How do economic systems and political ideologies shape urban development? What is the "right to the city," and what does it mean for city-dwellers to exercise it? These are just some of the questions we will seek to answer in our course, Berlin: Conflict, Community, and Sustainability. This is a September Term study abroad course. The program includes a side trip over a long weekend to the cities of Hamburg and Lübeck.

Instructor(s): Evan Carver Terms Offered: Summer

Prerequisite(s): Admission to Berlin: Conflict, Community, and Sustainability study abroad program.

Note(s): Study Abroad September Term AY 23-24

Equivalent Course(s): CEGU 22311, GRMN 22311

#### **ENST 22330. Flooding the World: Creation and Restoration in the Levant, Mesopotamia, and India. 100 Units.**

From Genesis to the Epic of Gilgamesh and the Rig Veda to modern novels like Geraldine McCaughrean's *Not the End of the World* (2004) and Jeanette Winterson's *Boating for Beginners* (1997), humans have repeatedly

accounted for, imagined, and ironized civilizational collapse and restoration through stories of catastrophic floods. These texts, modern and ancient, are fraught with political, religious, and historical background. In this course, we will compare these texts, focusing on literary issues like narrative plot, the construction of characters, the literary devices used, and the role of the narrator in telling the story of the flood. We will attempt to ascertain why imaginings of a deluge are generative, while being attuned to the complex differences between the ancient narratives and their significantly different afterlives. Through sustained inquiry, we will both challenge notion of sacred exceptionalism even while confronting the enduring presence of this trope in the post-modern novel.

Instructor(s): Cathleen Chopra-McGowan Terms Offered: Winter  
Equivalent Course(s): RLST 22330, SALC 22330, JWSC 26030

**ENST 22550. Performing Nature. 100 Units.**

What is it like to be a bat? A tree? A slime mold? Art that attempts to represent non-human experience helps to orient environmentalism around radical and highly personal moments of inter-species empathy. Portraying non-human perspectives, we escape the abstraction of environmental data, and instead approach ecological entanglement on the level of individual imagination. Giving voice and human embodiment to nature is a theme in much 19th, 20th and 21st century creative writing (fiction/nonfiction) and performance work (theater, dance, puppetry). Accordingly, this class offers a broad survey of non-human representation in these arts with special attention to first-person narratives and embodiment of flora and fauna. The course draws on philosophers of mind (i.e. Shaviro's 'Disognition') and nature-science writing, plus contemporary performance projects and digital works by art/technology companies who deploy virtual reality and electronic media to explore the points of view of natural beings and systems. Reading about anthropomorphization and the problem of the subject in nature writing from Erasmus Darwin to the present will allow students to adopt a critical as well as appreciative eye toward this field of study and expression. Creative writing assignments will ask students to write (and perform) monologues from nonhuman perspectives.

Instructor(s): S. Bockley Terms Offered: Spring  
Equivalent Course(s): CEGU 22550, TAPS 22550

**ENST 22611. Paris from Victor Hugo to the Liberation, c. 1830-1950. 100 Units.**

Starting with the grim and dysfunctional city described in Victor Hugo's "Les Misérables," the course will examine the history of Paris over the period in which it became viewed as the city par excellence of urban modernity through to the testing times of Nazi occupation and then liberation (c. 1830-1950). As well as focussing on architecture and the built environment, we will examine the political, social, and especially cultural history of the city. A particular feature of the course will be representations of the city-literary (Victor Hugo, Baudelaire, Zola, etc.) and artistic (impressionism and postimpressionism, cubism, surrealism). We will also examine the city's own view of itself through the prism of successive world fairs (expositions universelles).

Instructor(s): C. Jones Terms Offered: Winter  
Prerequisite(s): Students taking FREN 22620/32620 must read texts in French.  
Equivalent Course(s): HIST 32611, HIST 22611, FREN 22620, FREN 32620, ARCH 22611

**ENST 22708. Planetary Britain, 1600-1900. 100 Units.**

What were the causes behind Britain's Industrial Revolution? In the vast scholarship on this problem, one particularly heated debate has focused on the imperial origins of industrialization. How much did colonial resources and markets contribute to economic growth and technological innovation in the metropole? The second part of the course will consider the global effects of British industrialization. To what extent can we trace anthropogenic climate change and other planetary crises back to the environmental transformation wrought by the British Empire? Topics include ecological imperialism, metabolic rift, the sugar revolution, the slave trade, naval construction and forestry, the East India Company, free trade and agriculture, energy use and climate change.

Equivalent Course(s): KNOW 32808, HIST 32708, KNOW 22708, HIPS 22708, CHSS 32708, HIST 22708

**ENST 22900. People in Motion: Rethinking Transit in Chicago and Beyond. 100 Units.**

How do you get from A to B? Within and between today's urbanized areas, that seemingly simple question has become one of the most fraught and intractable problems. This course seeks to address questions about public transit across scales, from pedestrian and bicycle infrastructure at the level of individual intersections and blocks up to regional train networks and beyond. Like other design studio courses, the class will be project-based, and will ask students to develop a wide understanding of existing systems, but also to learn through creative design projects that expand their sense of what's possible. After working together to understand many existing transit solutions across different scales, to come to terms with and document Chicago's transit landscape, and to dream speculatively about untested transit possibilities both low- and high-tech, students will focus on building a portfolio of creative suggestions for their respective "clients" (e.g., the University of Chicago, the 4th Ward Alderman). Alongside this project work, assigned readings and explorations around Chicago will immerse students in the culture and philosophy of moving people and things, across different moments past, present and future.

Instructor(s): E. Carver, L. Joyner Terms Offered: Winter  
Prerequisite(s): Third or fourth-year standing  
Note(s): This course counts towards the ENST/CEGU 4th year Capstone requirement. While this class does not require prior experience, all ARCH studio courses require consent. Starting November 6, please visit [arthistory.uchicago.edu/archconsent](http://arthistory.uchicago.edu/archconsent) to request instructor consent for this class or other ARCH studios. (Please do not send consent requests by email.)

Equivalent Course(s): ARCH 22909, ARTH 22909, CHST 22900, BPRO 22900, CEGU 22900

**ENST 23100. Environmental Law. 100 Units.**

This course will examine the bases and assumptions that have driven the development of environmental law, as well as the intersection of this body of law and foundational legal principles (including standing, liability, and the Commerce Clause). Each form of lawmaking (statutes, regulations, and court decisions) will be examined, with emphasis on reading and understanding primary sources such as court cases and the laws themselves. The course also analyzes the judicial selection process in order to understand the importance of how the individuals who decide cases that determine the shape of environmental law and regulations are chosen.

Instructor(s): Ray Lodato Terms Offered: Winter

Prerequisite(s): 3rd or 4th year standing, or consent of instructor

Equivalent Course(s): CEGU 23100, PBPL 23100

**ENST 23289. Marine Ecology. 100 Units.**

This course provides an introduction into the physical, chemical, and biological forces controlling the function of marine ecosystems and how marine communities are organized. The structures of various types of marine ecosystems are described and contrasted, and the lectures highlight aspects of marine ecology relevant to applied issues such as conservation and harvesting.

Instructor(s): T. Wootton Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals Sequence and prior introductory course in ecology or consent of instructor.

Note(s): E.

Equivalent Course(s): BIOS 23289

**ENST 23401. Revision, Expression & Portfolio Design. 100 Units.**

This studio course, similar to a "senior seminar" in other disciplines, serves five purposes: (1) to allow students to pick up a few elements (drawings, models, collages, visual and place-based research, etc.) they've produced in other ARCH studio courses and spend more time refining them, outside the broader demands of a thematic studio class, (2) to acquaint students with advanced skills in expression and representation related to the revision and refinement of these elements, based on student interest and needs, (3) to assist students in the development of a portfolio of studio work, either toward application for graduate school or simply to have for themselves, and in systems to organize projects and revisions, (4) to add to students' typographic and graphic design skillsets, primarily using the Adobe Creative Suite, as part of the portfolio process, and (5) to practice and hone communication and writing skills related to discussing architectural projects. While there will be a modest set of skills-based exercises each week, to help structure the studio, most of the work for this class will be students' own project revisions and portfolios, and most of class time will be spent sharing and refining both.

Instructor(s): L. Joyner Terms Offered: Autumn

Prerequisite(s): Priority for this "senior studio" course will be given to third and fourth years who've taken at least two other ARCH studio classes already. Students who have not already taken "Skills & Processes for Architecture and Urban Design" may be asked to consult some of the problem sets from that class ahead of this one, to ensure a baseline upon which this class will build. Starting July 31, please visit [arthistory.uchicago.edu/archconsent](http://arthistory.uchicago.edu/archconsent) to request instructor consent for this class or other ARCH studios. (Please do not send consent requests by email.)

Note(s): This course counts towards the ENST 4th year Capstone requirement.

Equivalent Course(s): ARTH 23401, CEGU 23401, ARCH 23401

**ENST 23500. Political Sociology. 100 Units.**

This course provides analytical perspectives on citizen preference theory, public choice, group theory, bureaucrats and state-centered theory, coalition theory, elite theories, and political culture. These competing analytical perspectives are assessed in considering middle-range theories and empirical studies on central themes of political sociology. Local, national, and cross-national analyses are explored.

Instructor(s): T. Clark Terms Offered: Spring

Prerequisite(s): Completion of the general education requirement in the social sciences

Equivalent Course(s): SOCI 20106, PBPL 23600, SOCI 30106

**ENST 23505. Environmental Ethics. 100 Units.**

This course examines foundational issues of environmental ethics. What kind of values (economic, aesthetic, existence) are important? What kind of value do individual biota, humans, other species, ecosystems, humans, or inorganic entities have? What is the relationship of humans to the rest of the world? What should it be? Do religious and philosophical traditions contribute to or help address environmental degradation?

Instructor(s): S. Fredericks Terms Offered: Winter

Equivalent Course(s): RLST 23505, CEGU 23505

**ENST 23516. Environment and Society in the Ancient Mediterranean. 100 Units.**

This seminar examines the interplay between social and environmental actors, practices, and changes across time in the Mediterranean basin, as well as explores the study and analysis of those interactions from the beginnings of classical scholarship to the present. Key themes include: environmental determinism, human and non-human interactions, interpretive approaches to space and place, the role of science in archaeological and historical practice, and the compartmentalization of "environment" and "landscape" as analytic focus. These themes loom large now - during what might be called the "environmental turn" spurred on by the controversial Anthropocene

in the humanities and social sciences - and their intensifying resonance provides the basis for critical reflection of past and future trends in classics, history, archaeology, and anthropology.

Instructor(s): C. Kearns Terms Offered: Spring

Equivalent Course(s): CLAS 33516, CEGU 23516, CLCV 23516

**ENST 23517. Introduction to Critical Spatial Media: Visualizing Urban, Environmental, and Planetary Change. 100 Units.**

This course introduces critical theories and techniques for visualizing interconnected transformations of urban, environmental, and planetary systems amidst the pressures of climate change, urbanization, and global economies of capitalism. Weekly lectures will introduce major themes and theoretical debates, paired with hands-on lab tutorials exploring a selection of methods in conventional and experimental geographic visualization. Thematically, the course will be organized around critical interpretations of the Anthropocene, a concept designating the epoch in which anthropogenic activities are recognized as the dominant force of planetary climatic and ecological change. We will present these interpretations through modules structured around different conceptual paradigms and alternative epochal designations (e.g. the Urbanocene, the Capitalocene, the Plantationocene). Through weekly lab exercises and a final, synthetic project, the course will move from critically analyzing prevalent theoretical frameworks, geospatial data, and associated visualization techniques to creatively visualizing critical alternatives. Students will learn how to construct visual narratives through a variety of spatial media (e.g. maps, diagrams, visual timelines), scales (e.g. bodies, neighborhoods, landscapes, the planetary), and techniques/platforms (e.g. GIS, web mapping, basic programming language tools, and vector/raster visualization programs).

Instructor(s): Alexander Arroyo, Grga Basic, Sol Kim Terms Offered: Spring Winter

Equivalent Course(s): MAAD 13517, ARCH 23517, CEGU 23517, ARTV 20665

**ENST 23550. Urban Ecology and the Nature of Cities. 100 Units.**

Urban ecology is an interdisciplinary field derived from the academic discipline of ecology. How well does classical ecological theory, typically formed from reductionist views of nature without humans, describe and predict patterns in human-dominated landscapes? Students will learn fundamental concepts in ecological theory, examine how these concepts apply to urban systems, and explore the paradigms of ecology in, of, and for cities. Readings and discussions will focus on classical research papers from the ecological literature, history of modern ecology, and contemporary approaches to studying biotic systems in cities.

Instructor(s): Alison Anastasio Terms Offered: Winter. Not offered Winter 2021

Note(s): Not offered Winter 2021

Equivalent Course(s): PBPL 23550

**ENST 23645. Farms as Factories: Industrial Ideals in 'Modern' Agriculture. 100 Units.**

Plants and animals are now produced in capital-intensive, factory-like settings. The industrialization of agriculture has not only transformed what we eat, but also the ecology of the globe and biology of its inhabitants. This course explores the logics, history, and consequences of an agricultural sector that simultaneously generates lagoons of pig manure, proprietary DNA, and monocropped landscapes. How does commoditizing wheat alter its value? How do pigs to change when they live their lives on concrete? What forms of care are needed to keep antibiotic-laden chickens alive? How does the industrial production of life rearrange 'modern' concepts of nature? The course situates these questions within a broader framework of capitalism and commoditization; we begin by studying the rationale of proto-industrial production on slave plantations, consider the results of agricultural 'modernization' in the 19th and 20th centuries, and analyze how social scientists have studied these processes. Then, we examine how agricultural products - plants and animals - have been physically altered to facilitate standardized production, and study how these shifts have changed the role of workers and social milieu of agrarian labor. In addition to contextualizing modern agricultural production, this class is an introduction to animal and plant studies, theories of capitalism and commodification, and environmental studies.

Instructor(s): Sandy Hunter Terms Offered: Autumn

Equivalent Course(s): ANTH 23816

**ENST 23777. Geographical Issues in Housing and Community Development. 100 Units.**

This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Spring. This course offered in even years.

Prerequisite(s): Open to Chicago Studies Program students.

Equivalent Course(s): GEOG 33700, PBPL 23700

**ENST 23807. Toxic: Body Burdens and Environmental Exposures. 100 Units.**

Toxicity is a pervasive and often elusive presence in our lives today. In this seminar class, we begin to address this condition by asking: what exactly is toxic? Who bears the burden of this classification? And, how then, are these understandings of toxicity defined and deployed in broader historical, political, and scientific contexts? From these preliminary questions, we explore the pathways through which toxic exposure, contamination, and fallout accumulates in disproportionate and uneven ways, especially for minoritized populations and upon Indigenous territories. Drawing upon a variety of social science literature and community-based research we trace these challenges through overlapping structures of race, class, gender, citizenship, and coloniality. This transnational and interdisciplinary orientation will acquaint students with case studies of exposure across different scales and geographies, from Chernobyl to Chicago. Through mixed approaches of ethnography and

media curation, students will also have the opportunity to research and document their own cases studies of body burdens and environmental exposure.

Instructor(s): Teresa Montoya

Equivalent Course(s): HLTH 23807, CRES 23807, ANTH 23807

**ENST 23825. Social Theory of the City. 100 Units.**

This seminar explores various historical, sociological and anthropological theories of cities. The course analyzes major theoretical frameworks concerned with urban forms, institutions and experience as well as particular instances of city development from pre-modern to contemporary periods. The seminar will consist of initial orienting lectures, discussion of selected texts concerned with social theories of the city, and presentation of research projects by class participants.

Instructor(s): Alan L. Kolata

Prerequisite(s): Admission to the Paris Program

Note(s): Undergraduates only

Equivalent Course(s): ARCH 23835, ANTH 23825

**ENST 23900. Environmental Chemistry. 100 Units.**

The focus of this course is the fundamental science underlying issues of local and regional scale pollution. In particular, the lifetimes of important pollutants in the air, water, and soils are examined by considering the roles played by photochemistry, surface chemistry, biological processes, and dispersal into the surrounding environment. Specific topics include urban air quality, water quality, long-lived organic toxins, heavy metals, and indoor air pollution. Control measures are also considered. This course is part of the College Course Cluster program: Climate Change, Culture, and Society.

Instructor(s): D. Archer Terms Offered: Autumn

Prerequisite(s): CHEM 11100-11200 or equivalent, and prior calculus course

Equivalent Course(s): GEOS 33900, ENSC 23900, GEOS 23900

**ENST 24020. The Place of the Intellectual: Civic Life in Italian Literature and Theory. 100 Units.**

This course offers a survey of the notion of civic life in Italian literature and theory, from its beginning(s) to contemporary authors. The topic will be explored through some of the major representatives in Italian intellectual history, actively concerned with the life of the community at the urban, national and transnational level. From Dante to Petrarch, from Renaissance Civic Humanism to Machiavelli, from Vico to Gramsci, from Esposito to Agamben, the focus of the class will be on human sociability and on the forces that enhance or hinder the constitution of communities and collective life. Italy offers a privileged entry point into the issue of civic life due to its belated national unification and richness in local cultural varieties, traits that makes Italy unique in the European cultural and political landscape. Thematically, the class will look at the relationship between Church and Empire; at forms of communality beyond political institutions, such as friendship and family; at the imagination of ideal cities and utopias; at the effects of disruptive natural and human events on the making/unmaking of human sociability; at literature and popular culture in the constitution of regional and national identities.

Instructor(s): M. Muccione Terms Offered: Spring

Note(s): Taught in English.

Equivalent Course(s): ITAL 24020

**ENST 24102. Environmental Politics. 100 Units.**

Politics determines not only what particular faction holds power, but the parameters upon which contests for power are conducted. Competing political factions may diverge in the details of the policies they favor, but may agree on a central organizing principle upon which their policy differences are contested. This course acknowledges that such principles exist and structure politics, economics, and social arrangements, but also challenges the notion that these are immutable, and argues that other principles could be substituted which would drastically change these arrangements. The course introduces students to alternative theories of economics, politics, and environmental policy that challenge mainstream notions of what is acceptable under the current structural and institutional constraints, including how the retreat to notions of realism and practicality place limits on changes necessary to preserve and protect the natural environment.

Instructor(s): R. Lodato Terms Offered: Spring

Equivalent Course(s): PBPL 24102, CEGU 24102

**ENST 24110. Nature and the Natural in the Middle Ages. 100 Units.**

In this course we will undertake a study of nature and ideas about what is "natural" centered around three main axes, and will adopt a variety of relevant critical perspectives (e.g., ecocriticism, studies of gender and sexuality, political theory) to support our analyses. First, we will explore nature as the created world of which humans are a part (as one of God's creations), yet from which they also stand apart (as sovereign caretakers). Second, we will examine how the diffusion of Aristotelian works (notably the Politics) in the later Middle Ages provided a justificatory framework for social and political hierarchies and practices of economic exploitation. Third, we will consider the intersection of nature with gender, sexuality, and reproduction, a topic complicated by the fact that Nature is itself represented, in allegorical terms, as a woman.

Instructor(s): Daisy Delogu Terms Offered: Autumn

Prerequisite(s): Reading knowledge of French for all students. FREN 20500, 20503 or a literature course taught in French for those seeking credit for the French major/minor.



Note(s): Taught in English.

Equivalent Course(s): GNSE 24103, MDVL 24103, GNSE 34103, CEGU 24110, FREN 24100, FREN 34100

**ENST 24190. Imagining Chicago's Common Buildings. 100 Units.**

This course is an architectural studio based in the common residential buildings of Chicago and the city's built environment. While design projects and architectural skills will be the focus of the course, it will also incorporate readings, a small amount of writing, some social and geographical history, and several explorations around Chicago. The studio will: (1) give students interested in pursuing architecture or the study of cities experience with a studio course and some skills related to architectural thinking, (2) acquaint students intimately with Chicago's common residential buildings and built fabric, and (3) situate all this within a context of social thought about residential architecture, common buildings, housing, and the city. This course is part of the College Course Cluster program: Urban Design.

Instructor(s): L. Joyner Terms Offered: Autumn

Note(s): While this class does not require prior experience, all ARCH studio courses require consent. Starting July 31, please visit [arthistory.uchicago.edu/archconsent](http://arthistory.uchicago.edu/archconsent) to request instructor consent for this class or other ARCH studios. (Please do not send consent requests by email.) Please also note that this course will include several field trips around Chicago during class time; if you have any questions or concerns about that, please share them in the consent form when you complete it.

Equivalent Course(s): ARTV 20210, GEOG 24190, CHST 24190, ARTH 24190, ARCH 24190, CEGU 24190, AMER 24190

**ENST 24191. City Imagined, City Observed. 100 Units.**

This urban design studio course takes two distinct notions of the city as its starting point: grand, imaginative plans -- utopian, unbuilt, semi-realized, real... both as aesthetic objects, and as ideas -- and how the minute flows of day-to-day life, up from the smallest scale, enter into dialogue with little built and lived details, intended or not. Drawing on both Chicago and other places (not just urban) that individual students know well, we will dream both big and small, search both present and past, and tap precisely into both what we dream and what we experience... seeking not to dictate what the city will be, but to use these different modes of understanding to expand our sense of what a city can be. Necessarily, we'll grapple with difficult contradictions cities pose, our most central personal assumptions about spaces and places, and with questions of how, especially in present-day capitalism, cities change. We take as given the inevitable gap between how places actually evolve and how, perhaps, they could, and use that gap as a site for the imagination to step in, while also confronting the hubris of imagining cities real. The studio work will proceed in three stages: individually developing an alternate vision for a place you know well, at a historical moment of your choice... then breaking each others' plans... and finally using real observations and factors (and even spontaneous impulse) to complicate and rebuild your vision into something lovelier.

Instructor(s): L. Joyner Terms Offered: Winter

Note(s): Consent is required to enroll in this class. Priority will be given to students who have completed ARTH 24190.

Equivalent Course(s): GEOG 24191, CEGU 24191, AMER 24191, CHST 24191, ARTV 20205, ARCH 24191, ARTH 24191

**ENST 24193. Water Water Everywhere? 100 Units.**

This interdisciplinary course explores aesthetics, environmental racism, and a human rights approach to the Commons to inform our perspective on the politics and aesthetics of water from the local to the global. The course will look at issues of scarcity and abundance through the lenses of art and human rights. The course will incorporate work by artist Iñigo Manglano-Ovalle, who will visit the class. Students will consider works by other artists including Mel Chin, Allan Kaprow, LaToya Ruby Frazier, and Fazal Sheikh, to understand how art can confront the 21st century's environmental challenges. Readings will include Susan Sontag's *Regarding the Pain of Others*, and Fred Moten & Stefano Harney's *The Undercommons*. The course will include visits to site specific installations by artists Iñigo Manglano-Ovalle and Mel Chin, and visits to Chicago-area natural sites such as the Big Marsh and Lake Michigan. This course is an extension of a collaborative project at the Gray Center for Arts and Inquiry with human rights lawyer Susan Gzesh, artist Iñigo Manglano-Ovalle, and curator Abigail Winograd.

Instructor(s): S. Gzesh, Staff Terms Offered: September Term

Prerequisite(s): Third- or fourth-year standing

Note(s): Students must attend first class to confirm enrollment.

Equivalent Course(s): HMRT 24193, SOSOC 21005, CEGU 24193, BPRO 24193, CHST 24193, ARTH 24193

**ENST 24196. Second Nature: New Models for the Chicago Park District. 100 Units.**

The Chicago Park District seems to preserve "first nature" within the metropolitan field. But the motive for establishing this sovereign territory was hardly natural. Today, cultural change raises questions about the significance and operation of this immense network of civic spaces. What opportunities emerge as we rethink them? While this design studio focuses on the development of new model parks for Chicago, it can support students coming from a broad range of disciplines. Texts, seminar discussions, and field trips will complement and nourish the development of architectural proposals.

Instructor(s): A. Schachman Terms Offered: Autumn

Prerequisite(s): Consent only



Note(s): Students must attend first class to confirm enrollment. Please also note that architecture studio courses comprise one 80-minute meeting and one 170-minute meeting per week. Scroll down to see timing.  
Equivalent Course(s): GEOG 24196, ARCH 24196, CEGU 24196, ARTV 20206, ARTH 24196

**ENST 24199. The Life of Buildings. 100 Units.**

This course will examine the life of buildings-- how they perform, evolve, and adapt over time. How do particular design decisions influence human experience and behavior? Which parts of the building align with its intended use and what are surprising outcomes or changes? These questions aim to provide students with a deeper understanding of the built environment and the series of decisions that shaped them. Through readings, surveys, site visits, and conversations with architects and building users, we will measure and examine the spaces around us. Students will begin with a series of short analysis and design exercises and create short films, projective collages and diagrams, and architectural concept models. Building on our collective observations, research, and analysis, we will then finish with a final project where we respond to an existing building and propose an alternate life path. The format of the course is part-seminar, part-studio that aims to equip students with practical tools and strategies needed to shape our world and account for the long-term impact of design.

Terms Offered: Winter

Equivalent Course(s): ARCH 24199, ARTH 24199, CHST 24199

**ENST 24270. Children & Architecture. 100 Units.**

Many who pursue architecture do so initially out of a childlike fascination with buildings, places and worlds. Curiosity and limited understanding naturally provide children with an exploratory relationship to the built environments they traverse, and children also often show a heightened sense of wonder -- heightened emotions of all kinds -- as that relationship plays out. (This can be positive and formative, or scary and traumatic.) And yet, many of the adults who make choices about the worlds we inhabit think mostly of adults, and as adults, in doing so. This architecture studio course investigates the built world through a child's eyes, across different moments in history, including our own. Readings and seminar discussions will range from playgrounds to blocks, preschools to family relations, swimming pools and sandcastles to the very construction of childhood as an idea. We will explore Chicago, and meet with builders of all ages, likely culminating in designing (and potentially building) a real playground space. While previous experience with architectural skills is not necessary to excel in this course, childlike curiosity is required.

Instructor(s): L. Joyner Terms Offered: Spring

Prerequisite(s): While this class does not require prior experience, all ARCH studio courses require consent.

Starting February 12, please visit [arthistory.uchicago.edu/archconsent](http://arthistory.uchicago.edu/archconsent) to request instructor consent for this class or other ARCH studios. (Please do not send consent requests by email.)

Note(s): The course is visiting the City Museum in St. Louis (a multi-story, artist-built playground for children and adults that defies description) for one day in advance of the course.

Equivalent Course(s): ARTV 20029, MAAD 24270, ARTH 24270, CHST 24270, ARCH 24270

**ENST 24600. Introduction to Urban Sciences. 100 Units.**

This course is a grand tour of conceptual frameworks, general phenomena, emerging data and policy applications that define a growing scientific integrated understanding of cities and urbanization. It starts with a general outlook of current worldwide explosive urbanization and associated changes in social, economic and environmental indicators. It then introduces a number of historical models, from sociology, economics and geography that have been proposed to understand how cities operate. We will discuss how these and other facets of cities can be integrated as dynamical complex systems and derive their general characteristics as social networks embedded in structured physical spaces. Resulting general properties of cities will be illustrated in different geographic and historical contexts, including an understanding of urban resource flows, emergent institutions and the division of labor and knowledge as drivers of innovation and economic growth. The second part of the course will deal with issues of inequality, heterogeneity and (sustainable) growth in cities. We will explore how these features of cities present different realities and opportunities to different individuals and how these appear as spatially concentrated (dis)advantage that shape people's life courses. We will show how issues of inequality also have consequences at more macroscopic levels and derive the general features of population and economic growth for systems of cities and nations.

Instructor(s): Luis Bettencourt Terms Offered: TBD. Not offered in 2023-2024 academic year.

Prerequisite(s): STAT 22000

Equivalent Course(s): GISC 34600, CEGU 24600, SOCI 20285, PBPL 24605, GISC 24600

**ENST 24660. Urban Geography. 100 Units.**

This course examines the spatial organization and current restructuring of modern cities in light of the economic, social, cultural, and political forces that shape them. It explores the systematic interactions between social process and physical system. We cover basic concepts of urbanism and urbanization, systems of cities urban growth, migration, centralization and decentralization, land-use dynamics, physical geography, urban morphology, and planning. Field trip in Chicago region required. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course counts towards the ENST 4th year Capstone requirement. This course offered in even years.

Equivalent Course(s): ARCH 24660, CEGU 24660, CEGU 34660

**ENST 24701. U.S. Environmental Policy. 100 Units.**

How environmental issues and challenges in the United States are addressed is subject to abrupt changes and reversals caused by extreme partisanship and the heightened significance of the issues for the health of the planet and all its inhabitants. The relatively brief history of this policy area, and the separate and distinct tracts in which public lands and pollution control issues are adjudicated, makes for a diverse and complex process by which humanity's impact on the natural world is managed and contained. This course focuses on how both types of environmental issues are addressed in each branch of the Federal government, the states and localities, as well as theories of how environmental issues arrived onto the public agenda and why attention to them is cyclical. Students are encouraged to understand the life cycle of public policy from its initial arrival on the public agenda to the passage of legislation to address adverse conditions, as well as how changes in the policy occur after the inevitable decline of intensive attention.

Instructor(s): R. Lodato Terms Offered: Winter

Note(s): This course counts towards the ENST 4th year Capstone requirement.

Equivalent Course(s): PBPL 24701, CEGU 24701

**ENST 24705. Energy: Science, Technology, and Human Usage. 100 Units.**

This course covers the technologies by which humans appropriate energy for industrial and societal use, from steam turbines to internal combustion engines to photovoltaics. We also discuss the physics and economics of the resulting human energy system: fuel sources and relationship to energy flows in the Earth system; and modeling and simulation of energy production and use. Our goal is to provide a technical foundation for students interested in careers in the energy industry or in energy policy. Field trips required to major energy converters (e.g., coal-fired and nuclear power plants, oil refinery, biogas digester) and users (e.g., steel, fertilizer production). This course is part of the College Course Cluster program: Climate Change, Culture and Society.

Instructor(s): E. Moyer Terms Offered: Spring

Prerequisite(s): Knowledge of physics or consent of instructor

Equivalent Course(s): ENSC 21100, GEOS 34705, CEGU 24705, GEOS 24705

**ENST 24706. Edo/Tokyo: Society and the City in Japan. 100 Units.**

This course explores the history of one of the world's largest cities from its origins as the castle town of the Tokugawa shoguns in the early seventeenth century, to its transformation into a national capital and imperial center, and concludes in the postwar era as Tokyo emerged from the ashes of World War II to become a center of global capital and culture. Our focus will be on the complex and evolving interactions between the natural and built environments of the city and politics, culture, and social relations.

Instructor(s): S. Burns Terms Offered: Autumn

Equivalent Course(s): EALC 34706, CRES 24706, HIST 24706, ARCH 24706, CRES 34706, EALC 24706, HIST 34706

**ENST 24776. International Environmental Policy. 100 Units.**

Environmental issues have become a prominent part of the work of international organizations and their member nations. However, the resolution to issues and concerns shared in common by the nations of the world often faces obstacles based on access to wealth and resources, political and military power, and the demands of international economic institutions. While multinational agreements have been achieved and successfully implemented, resolutions to issues such as climate change have been harder to achieve. The course will look at the origins of international cooperation on environmental issues, several case studies of issues upon which the international community has attempted to bring about cooperative solutions (climate change, the ozone hole, climate refugees, etc.), and the work that regional associations of nations have done to jointly address shared environmental challenges. In addition, speakers from various consulates have addressed the class to discuss environmental policymaking in their countries.

Instructor(s): R. Lodato Terms Offered: Spring

Equivalent Course(s): CEGU 24776, PBPL 24776

**ENST 24918. Early Traveling Writing: Pausanias in Roman Greece. 100 Units.**

Through a close reading of Pausanias, who wrote his Description of Greece during the Roman imperial period, this course explores ancient forms of travel writing and associated interests in the places, peoples, myths, ruins, and material objects of the Mediterranean world. Moving from the apparent ethnographic lens of earlier Greek literature to Roman imperialist expeditions, readings and discussions will examine the sociopolitical contexts out of which Pausanias emerged as a literary author, and his legacies in and relationship to the wide array of genres of modern travel writing, from Lewis and Clark to John Steinbeck. Key topics will include: movement through space, tourism, nature, landscape, town and country, sites and spectacles, myth, ritual, and acts of remembering and forgetting.

Instructor(s): Catherine Kearns Terms Offered: Winter

Equivalent Course(s): CLCV 24918, CEGU 24918, ANCM 34918, FNDL 24918, CLAS 34918

**ENST 25012. Undergraduate research seminar: Chicago Urban Morphology. 100 Units.**

This seminar is open to Seniors and Juniors, particularly for but not necessarily limited to those in the fields of geography, environmental science, and urban studies. It is designed for students to undertake original research on a topic of their own choosing within the broad scope of Chicago's built environment. Following a brief reading course in the theoretical literature of urban morphology, each student will identify and select a topic of interest to research using Chicago sources, with the objective of a formal written research paper. Discussions will center around formulating research questions, theoretical underpinnings, suitable methodology, modes of

writing, appropriate presentation of evidence, and effective illustration. Sessions will combine open discussion with a rotating series of periodic individual progress reports to the group, reflecting an interesting diversity of topics and mutual support in gaining experience in the research process.

Instructor(s): Michael Conzen Terms Offered: Winter

Note(s): Restricted to 3rd and 4th years This course counts towards the ENST 4th year Capstone requirement.

Equivalent Course(s): CEGU 25012, GEOG 25012, PBPL 25012, ARCH 25012, CHST 25012, SOCI 20552

#### **ENST 25014. Introduction to Environmental History. 100 Units.**

How have humans interacted with the environment over time? This course introduces students to the methods and topics of environmental history by way of classic and recent works in the field: Crosby, Cronon, Worster, Russell, and McNeill, etc. Major topics of investigation include preservationism, ecological imperialism, evolutionary history, forest conservation, organic and industrial agriculture, labor history, the commons and land reform, energy consumption, and climate change. Our scope covers the whole period from 1492 with case studies from European, American, and British imperial history.

Instructor(s): F. Albritton Jonsson Terms Offered: Winter

Equivalent Course(s): HIST 35014, HIPS 25014, CEGU 25014, CHSS 35014

#### **ENST 25111. Visualization and Biology: Science, Culture, and Representation. 100 Units.**

How do scientific images get made? This deceptively simple question lies at the heart of this course. Over three weeks at the MBL, we will examine the techniques, technologies, philosophies and histories of scientific image making, with a particular focus on marine biology. Rather than simply reading theories of visualization and representation, students will immerse themselves in the making of images themselves. Students will perform hands-on work with historical and contemporary theories and techniques of microscopy, taxonomy, anatomy, and specimen collecting. They will also examine the theoretical, philosophical, and ethical underpinnings of those practices. Through a combination of ethnographic (participant observation) and historical (archival) work, students will develop rich accounts of scientific visualization - from matters of objectivity and instrumentation, to problems of vision and the limits of (human) senses, to questions of aesthetics, abstraction, and representation. During the course, students will have the opportunity to work with Marine Biological Laboratory faculty, have access to laboratory and archives, and will develop new data and novel accounts of the social, cultural, and technical creation of scientific images.

Instructor(s): Michael Paul Rossi Terms Offered: Autumn

Prerequisite(s): Prerequisite: Consent Only.

Note(s): Prerequisite: Consent Only. Course meets for three weeks, 9/9 thru 9/27 (5-6 days/week, 8 hours per day), at Marine Biological Laboratories, in Woods Hole Massachusetts. Course will be part of Autumn quarter course load. For more information see <http://college.uchicago.edu/academics/mbi-september-courses>

Equivalent Course(s): ANTH 23809, HIPS 15100, HIST 14904

#### **ENST 25130. Social Theory for a Green New Deal. 100 Units.**

U.S. House Resolution 109-popularly known as the Green New Deal-pledges a systemic corrective to the social and ecological harms of late industrial capitalism. With a particular focus on questions of economic and environmental justice, this seminar anthropologically assesses the prospect of a Green New Deal and its potential relationship to society, policy, and the built environment. Thinking relationally across scales and systems, we will consider the stakes of this large-scale yet still largely undefined legislative proposal and its implications for the social contract in a warming world. Attending to the ways in which race, class and gender inform late industrial life, the seminar will explore (via the environmental humanities and feminist & indigenous STS) concepts such as stewardship, climate justice, environmental racism, intergenerational ethics, more-than-human ontologies, and the Anthropocene (plus alternative frames).

Instructor(s): Journey, Rebecca Terms Offered: TBD

Equivalent Course(s): ANTH 23812, GLST 25130, CEGU 25130

#### **ENST 25500. Biogeography. 100 Units.**

In this course, we examine the uneven distribution of life on Earth and how ecology, evolution, and Earth sciences help us understand its past, present, and future. Topics include diversity gradients and hotspots, islands, methods for inferring the boundaries and histories of biotas, models and laws in biogeography, and the relevance of biogeography in the Anthropocene.

Instructor(s): J. Bates (odd years- Autumn); R. Ree (odd years- Winter) Terms Offered: Autumn Winter. Offered during odd calendar years only, Winter & Autumn.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence and a course in either ecology, evolution, or earth history; or consent of instructor

Note(s): E. GP.

Equivalent Course(s): EVOL 45500, GEOG 35500, BIOS 23406, GEOG 25500

#### **ENST 25704. Environmental Justice in Chicago. 100 Units.**

This course will examine the development of environmental justice theory and practice through social scientific and ethical literature about the subject as well as primary source accounts of environmental injustices. We will focus on environmental justice issues in Chicago including, but not limited to waste disposal, toxic air and water, the Chicago heat wave, and climate change. Particular attention will be paid to environmental racism and the often understudied role of religion in environmental justice theory and practice. Throughout the course we will explore how normative commitments are expressed in different types of literature as well as the basis for

normative judgments and the types of authorities authors utilize and claim as they consider environmental justice.

Instructor(s): Sarah Fredericks Terms Offered: Winter

Note(s): Graduate students need permission to enroll and will have additional requirements.

Equivalent Course(s): CEGU 25704, AMER 25704, KNOW 25704, HMRT 25704, CHST 25704, CRES 25704, RLST 25704, PBPL 25704

#### **ENST 25705. Climate Ethics. 100 Units.**

Anthropogenic climate change is the largest challenge facing human civilization. Its physical and temporal scale and unprecedented complexity at minimum require extensions of existing ethical systems, if not new ethical tools. In this course we will examine how religious and philosophical ethical systems respond to the vast temporal and spatial scales of climate change. For instance, common principles of environmental ethics such as justice and responsibility are often reimagined in climate ethics even as they are central to the ethical analysis of its effects. In the course, we will take a comparative approach to environmental ethics, examining perspectives from secular Western philosophy, Christianity (Catholic and Protestant), Buddhist, and Indigenous thought.

We will also look at a variety of ethical methods. Throughout the course we will focus on communication about climate change as well as articulating rigorous ethical arguments about its causes and implications.

Instructor(s): Sarah Fredericks Terms Offered: Spring

Equivalent Course(s): RLST 25703, CEGU 25705

#### **ENST 25715. The Bible and Ecology. 100 Units.**

In 2010, HarperCollins published *The Green Bible*, which claims to help readers "understand the Bible's powerful message for the earth." What precisely is the Bible's "message for the earth"? Does the Bible even contain one unified message about the relationship between God, human beings, and the natural world? For many, the question of "what the Bible says" about the environment has become urgent in the midst of the intersecting environmental crises of our day, from global warming to the sixth mass extinction. And yet, there does not seem to be an easy answer to this question; the Bible has been used both to support ethics of conservation and to justify exploitation of the earth's resources. In this course, we will analyze key passages employed in contemporary discourse about the Bible and the environment from a historical-critical perspective. At the same time, we will investigate how these texts are being invoked today in support of various agendas. Along the way, we will discover and interrogate the profound influence of biblical cosmologies, anthropologies, and eschatologies in shaping attitudes towards the earth and its nonhuman inhabitants. No prior knowledge of biblical literature is expected.

Instructor(s): Christine Trotter Terms Offered: Spring

Equivalent Course(s): RLST 25705

#### **ENST 26000. Chicago Neighborhoods. 100 Units.**

This course is an applied learning experience in which students explore the many dimensions of Chicago neighborhoods, with a particular focus on the built environment and how it impacts - and is impacted by - the social and economic life of the city. Students will observe, interpret and represent neighborhoods through a series of exercises designed to deepen knowledge about the significance and meaning of neighborhood form. Readings and fieldwork will engage students in neighborhood analysis and observation techniques that explore contemporary issues about public life, diversity, and social equity. This course is part of the College Course Cluster, Urban Design.

Instructor(s): Emily Talen Terms Offered: TBD. Not offered in 2023-2024 academic year.

Note(s): Restricted to 3rd and 4th years This course counts towards the ENST 4th year Capstone requirement.

Equivalent Course(s): CHST 26000, GEOG 24000, SOSC 26000, PBPL 24005

#### **ENST 26005. Cities by Design. 100 Units.**

This course examines the theory and practice of city design-how, throughout history, people have sought to mold and shape cities in pre-determined ways. The form of the city is the result of myriad factors, but in this course we will hone in on the purposeful act of designing cities according to normative thinking-ideas about how cities ought to be. Using examples from all time periods and places around the globe, we will examine how cities are purposefully designed and what impact those designs have had. Where and when has city design been successful, and where has it resulted in more harm than good?

Instructor(s): Evan Carver Terms Offered: Winter

Equivalent Course(s): GEOG 26005, ARCH 26005, PBPL 26005

#### **ENST 26008. Historic Preservation Studio. 100 Units.**

This course is an introduction to the preservation of the built environment. What are the benefits of preserving historic resources? Students will conduct studies of historic buildings in Chicago, exploring their cultural significance and impact on neighborhoods, and applying preservation tools and methods to formulate policies to advance preservation goals. We will also debate preservation's role in addressing climate change and its role in advancing social goals, such as maintaining neighborhood diversity. Through readings, archival research, mapping, field visits, and interaction with professionals in the field, we will consider the possibilities of leveraging historic preservation to advance social, economic, and environmental goals.

Instructor(s): Emily Talen Terms Offered: Not offered in 2023-2024 academic year.

Equivalent Course(s): ARCH 26008, GEOG 36008, CHST 26008

**ENST 26070. Explorations of Mars. 100 Units.**

Mars is more than a physical object located millions of miles from Earth. Through centuries of knowledge-making people have made the "Red Planet" into a place that looms large in cultural and scientific imagination. Mars is now the primary target for human exploration and colonization in the Solar System. How did this happen? What does this mean? What do we know about Mars, and what's at stake when we make knowledge about it? Combining perspectives from the social sciences and humanities, this course investigates how knowledge about Mars is created and communicated in not only science and technology fields but across public culture. A major focus will be learning how Mars has been embedded within diverse social and political projects here on Earth. Through reading-inspired group discussions and instructor-led experiential research projects, the course will move from the earliest visual observations of Mars to recent robotic missions on the planet's surface. In doing so, this seminar will critically grapple with evolving human efforts to make Mars usable. No prior knowledge of Mars is required.

Instructor(s): Jordan Bimm Terms Offered: Autumn

Equivalent Course(s): KNOW 36070, HIST 35200, HIPS 26070

**ENST 26100. Roots of the Modern American City. 100 Units.**

This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century. We emphasize evolving regional urban systems, the changing spatial organization of people and land use in urban areas, and the developing distinctiveness of American urban landscapes. All-day Illinois field trip required. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Autumn. Offered 2021-22

Note(s): This course counts towards the ENST 4th year Capstone requirement. This course offered in odd years.

Equivalent Course(s): CEGU 36100, CHST 26100, HIST 28900, ARCH 26100, CEGU 26100, HIST 38900

**ENST 26170. Why Do Animals Talk? Beastly Worlds in South Asian Literature. 100 Units.**

Comprised of a diverse set of languages covering a disparate set of regions, South Asian literatures share a deep investment in the figure of the animal. Whether imagined through the genre of political advice, in narrative tellings of the past lives of the Buddha, or simply as characters in an expanded continuum of life, animals serve as important literary devices to reflect on human beings as well as autonomous subjects bound up with humans with their own distinct emotional and spiritual lives. Drawing particularly from the Sanskrit tradition among others, this course will introduce students to a broad survey of animal literature in South Asia alongside more recent scholarship in Animal Studies. By the end of the course, students can expect to have a myriad of answers to the question: why do animals talk?

Instructor(s): Sarah Pierce Taylor Terms Offered: Spring

Equivalent Course(s): SALC 26170, RLST 26170

**ENST 26255. Environmental Justice Field Research Project I. 100 Units.**

This two-quarter sequence will expose students to real-world policy-making questions and field-based research methodologies to design an environmentally based research project, collect data, conduct analyses, and present findings. In the first quarter, we will follow a robust methodological training program in collaboration with University partners to advance the foundations laid elsewhere in the public policy studies program. In the second quarter, this expertise in a full range of research methodologies will be put into practice to tackle public policy problems in the city and neighborhoods that surround the University. PBPL 26255 and PBPL 26355 satisfy the Public Policy practicum Windows and Methods requirements.

Instructor(s): Lodato, R. Terms Offered: Autumn. not offered in 2022-23

Prerequisite(s): Students taking this course to meet the Public Policy practicum requirement must take both courses.

Equivalent Course(s): PBPL 26255

**ENST 26260. Environmental Justice in Principle and Practice. 100 Units.**

This course will investigate the foundational texts on environmental justice as well as case studies, both in and out of Chicago. Students will consider issues across a wide spectrum of concerns, including toxics, lead in water, waste management, and access to greenspaces, particularly in urban areas. These topics will be taught in accompaniment with a broader understanding of how social change occurs, what barriers exist to producing just outcomes, and what practices have worked to overcome obstacles in the past. The class will welcome speakers from a variety of backgrounds to address their work on these topics.

Instructor(s): Ray Lodato Terms Offered: Winter

Note(s): This course counts towards the ENST 4th year Capstone requirement. This course will cover the same content as ENST 26255.

Equivalent Course(s): CHST 26259, PBPL 26260, CEGU 26260

**ENST 26261. Environmental Justice in Principle and Practice II. 100 Units.**

In this quarter, students will learn and practice methods to conduct a research project with a local environmental organization. Building on knowledge gained in the first half of this course, students will examine what makes a condition an environmental justice issue, how to conduct a literature review, how to develop and administer a questionnaire for key informant interviews, and how to access, understand, and utilize Census data. Students should expect to work in the community as well as the classroom, and in close collaboration with classmates. The class will conduct "deep-dive" research into the community selected, and will learn not only about the area, but techniques for how to do community-based research in a manner that acknowledges and appreciates the



lived wisdom of the neighborhood's residents. The result will be a research report delivered to the community organization with students in the class listed as co-authors.

Instructor(s): Ray Lodato Terms Offered: Winter

Equivalent Course(s): CEGU 26261, CHST 26261, PBPL 26261

**ENST 26322. A History of Public Spaces in Mexico, 1520-2020. 100 Units.**

Streets and plazas have been sites in which much of Mexican history has been fought, forged, and even performed. This course examines the history of public spaces in Mexico since the Spanish Conquest. By gauging the degree to which these sites were truly open to the public, it addresses questions of social exclusion, resistance, and adaptability. The course traces more than the role and evolution of built sites. It also considers the individuals and groups that helped to define these places. This allows us to read street vendors, prostitutes, students, rioters, and the "prole" as central historical actors. Through case studies and primary sources, we will examine palpable examples of how European colonization, various forms of state building, and more recent neoliberal reforms have transformed ordinary Mexicans and their public spaces.

Instructor(s): C. Rocha Terms Offered: Spring

Equivalent Course(s): ARCH 26322, HIST 26322, LACS 25322

**ENST 26366. Planning for Land and Life in the Calumet. 100 Units.**

The collaborative plan to create a Calumet National Heritage Area that touches aspects of environmental conservation, economic development, cultural heritage, recreation, arts, and education will ground this course's exploration of landscape history and landscape planning in the Calumet region. Students will investigate this planning process and its relationship to other local and regional plans. A strong focus of the course is on the opportunities and challenges this complex and richly textured industrial region faces in its transition to a more sustainable future.

Terms Offered: Spring. not offered in 2022-23

Note(s): This course is part of the Chicago Studies Quarter: Calumet.

Equivalent Course(s): CHST 26366, CEGU 26366, PBPL 26366

**ENST 26367. Objects, Place and Power. 100 Units.**

Objects are not only formed and interpreted through ideas of place and power, but also shape place and identity. This course looks at how material culture has, in part, formed understandings of the Calumet. Through methods drawn from art history and museum studies, we will look closely at objects, collections, and institutions in the region to analyze the power and politics of representation in placemaking.

Instructor(s): Jessica Landau Terms Offered: Spring

Note(s): This course is part of the Chicago Studies Quarter: Calumet.

Equivalent Course(s): CEGU 26367

**ENST 26368. Environmental Transitions and Unnatural Histories. 100 Units.**

The course considers changes wrought in the natural landscape of the greater Calumet region beginning with indigenous Potawatomi and their forced removal. Students will examine how the Calumet's natural environment became collateral damage of the industrial capitalism that transformed the region into an economic powerhouse and explore efforts to rehabilitate the Calumet's rich biodiversity, identifying the challenges and achievements of this most recent environmental transition.

Instructor(s): Mary Beth Pudup Terms Offered: Spring

Note(s): This course is part of the Chicago Studies Quarter: Calumet.

Equivalent Course(s): CEGU 26368

**ENST 26374. Ethnographic Methods in Chicago. 100 Units.**

What can the neighborhoods and communities of Chicago teach us about the wider forces shaping our society-globalization, mass mediation, immigration, and nationalism? This class prepares students to conduct ethnographic fieldwork through practical experience at field sites around our campus and city. Our course readings and discussions will equip students with the anthropological theory and methodological tools necessary for successful fieldwork. Students will apply these concepts and methods by visiting a field site of their choosing in Chicago, for example, an RSO, an NGO, a religious community, a park, or a diner. The course culminates with student presentations of their ethnographic data-field notes, maps, interviews, photos-and their analysis of how the minutia of everyday life helps us understand Chicago's global society. No prior knowledge of anthropological theory or experience with ethnographic fieldwork is required.

Instructor(s): Staff Terms Offered: Autumn

Equivalent Course(s): CHST 26374, GLST 26374

**ENST 26382. Development and Environment in Latin America. 100 Units.**

Description: This course will consider the relationship between development and the environment in Latin America and the Caribbean. We will consider the social, political, and economic effects of natural resource extraction, the quest to improve places and peoples, and attendant ecological transformations, from the onset of European colonialism in the fifteenth century, to state- and private-led improvement policies in the twentieth. Some questions we will consider are: How have policies affected the sustainability of land use in the last five centuries? In what ways has the modern impetus for development, beginning in the nineteenth century and reaching its current intensity in the mid-twentieth, shifted ideas and practices of sustainability in both environmental and social terms? And, more broadly, to what extent does the notion of development help us explain the historical relationship between humans and the environment?



Instructor(s): Diana Schwartz Francisco Terms Offered: Winter

Equivalent Course(s): CEGU 26382, HIST 36317, GLST 26382, ANTH 23094, GEOG 26382, LACS 36382, HIPS 26382, HIST 26317

**ENST 26383. Mapping Global Chicago: Immigration Law, Policy & Disapora. 100 Units.**

Mapping Global Chicago is an interdisciplinary research lab that undergraduates may take for course credit. In this lab, students work together to create public scholarship investigating the idea of the "global city" here in Chicago. This year, students will conduct research projects centered around immigration policies and laws, as well as the intersection of immigration with criminal justice. This course is in collaboration with Chicago Appleseed, a community driven nonprofit that advocates for fair, accessible, and anti-racist courts. In addition to working alongside Appleseed's staff on immigration court reform projects, enrolled students will court-watch, interview people working in and impacted by the immigration and legal systems, and explore diverse research methods. Students will deliver their research findings to a live audience during a final presentation. Please direct any questions to Professor Callie Maidhof (cmaidhof@uchicago.edu) and Ethan Chen (ethanjchen@uchicago.edu). Applications for the course are due by Tuesday, 12/12/2023 (11:59 pm CT), and students will receive notification about their enrollment status around the second week of the winter quarter.

Instructor(s): Callie Maidhof Terms Offered: Spring

Prerequisite(s): Please direct any questions to Professor Callie Maidhof (cmaidhof@uchicago.edu) and Ethan Chen (ethanjchen@uchicago.edu). Applications for the course are due by Tuesday, 12/12/2023 (11:59 pm CT), and students will receive notification about their enrollment status around the second week of the winter quarter.

Equivalent Course(s): PBPL 26383, CHST 26383, GLST 26383, LLSO 26383

**ENST 26388. Food Justice and Biodiversity in Latin America. 100 Units.**

This course asks how the relationships between food production and consumption, economic justice, and biodiversity have changed over the last century in Latin America and the Caribbean. As a region known both for its ecological diversity and as a producer of tropical foods regularly consumed in the United States, plantation-style agriculture has often undermined its celebrated biodiversity. In centering the role of workers and consumers, this course considers the layered relationships- ecological, social, political, economic and cultural- between the production and consumption of food from Latin America and the Caribbean. In Autumn 2022, the course will also engage questions of food justice and biodiversity in the Chicagoland area and in particular among Latine/x com

Instructor(s): Diana Schwartz Francisco Terms Offered: Autumn

Note(s): Preferred: some background in Latin American history, geography and/or contemporary issues

Equivalent Course(s): LACS 26388, GLST 26388, HIST 26323

**ENST 26409. Revolution, Dictatorship, & Violence in Modern Latin America. 100 Units.**

This course will examine the role played by Marxist revolutions, revolutionary movements, and the right-wing dictatorships that have opposed them in shaping Latin American societies and political cultures since the end of World War II. Themes examined will include the relationship among Marxism, revolution, and nation building; the importance of charismatic leaders and icons; the popular authenticity and social content of Latin American revolutions; the role of foreign influences and interventions; the links between revolution and dictatorship; and the lasting legacies of political violence and military rule. Countries examined will include Guatemala, Cuba, Chile, Argentina, El Salvador, Nicaragua, Peru, Venezuela, Bolivia, and Mexico. Assignments: Weekly reading, a midterm exam or paper, a final paper, participation in discussion, and weekly responses or quizzes.

Instructor(s): B. Fischer Terms Offered: Winter

Note(s): Some background in Latin American studies or Cold War history useful.

Equivalent Course(s): HIST 36409, HMRT 26409, LACS 36409, LACS 26409, DEMS 26409, HIST 26409

**ENST 26801. The Global Urban. 100 Units**

This course was conceived with the aim of "globalizing" urban scholarship. To this end, we will highlight different urban trajectories and forms and different ways of being urban around the world. We will focus on urban experiences in the Global South and in Southeast Asia particularly. We will spend the first week of the course discussing how and why Southern cities are different. We will talk about their explosive growth in the twentieth century, the precarious nature of urban employment, informal settlement as a major urban form, the housing divide as a social structure distinct to such cities, class formation, economic and spatial restructuring under neoliberalism, and the nature of urban citizenship. We will spend the second week examining two very different cases: Manila and Phnom Penh. In the third week, we will focus exclusively on Hong Kong, and students will be tasked with conducting their own urban fieldwork.

Instructor(s): Marco Garrido Terms Offered: Summer

Equivalent Course(s): GLST 26801

**ENST 27002. Compiling and Mediating Environmental History. 100 Units.**

How do audiovisual media archives inform both the research and presentation of environmental history? Social media posts, fiction film, photographs from geological surveys, and urban field recordings all index historical environmental conditions. Artists and scholars enlist such archives to reanimate lost and changed landscapes for contemporary audiences, raising historiographical questions about how research excavates, extracts, and assembles both image and sound. This course looks at a series of documentary films and online media projects that enlist media to narrate histories of socio-ecological interaction. These projects explore site-specific environmental crises as they were deliberately or inadvertently recorded by media, including the toxic legacies

of U.S. Imperialism, the extraction economy of South African apartheid, or how Hollywood films unconsciously document the long-term impacts of climate change. Students will analyze these media objects alongside readings in media historiographical theory, environmental history, and documentary theory. The goal of this engagement is to guide students toward a final project that employs both research and creative practice to compile a report about an environmental historical case study that utilizes a media archive to make the argument. This course shows how humanistic inquiry into documentary media and the material conditions of media production can inform the assembly and presentation of environmental historical knowledge.

Instructor(s): Thomas Pringle Terms Offered: Spring

Note(s): No production experience is required. This course partially fulfills the research seminar requirement for the IRHUM major.

Equivalent Course(s): KNOW 26072, IRHU 27002

#### **ENST 27110. Spatial Thinking in Historical Cartography. 100 Units.**

The course will introduce students to the ways in which cartographers in the English-speaking world have conceived of representing spatial patterns in map form, and how that has changed over time beginning in the 18th century, given changes in world view, cultural background, cartographic technology, business organization, and educational fashion. The objective is to sharpen students' ability to think critically about how maps have been produced in history, evaluate their design, effectiveness, and limitations, and the uses to which they have been put.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course can be counted toward as a 4th year CEGU/ENST Capstone course.

Equivalent Course(s): CEGU 27110, CHST 27110, GISC 27110

#### **ENST 27111. Cartographic Design and Geovisualization. 100 Units.**

This course is a hands-on introduction to core principles and techniques associated with cartographic design, especially with regards to digital map design and the geographic visualization of data. Main topics include map generalization, symbology, scale, visual variables, scales of measurement, 2D and 3D design, map animation and interaction, and web mapping. Students will work with open-source GIS software and web tools, culminating in a final project and peer critique.

Instructor(s): Crystal Bae Terms Offered: Autumn, Offered 2023-24

Equivalent Course(s): CHST 27100, CEGU 27100, GISC 37100, GISC 27100

#### **ENST 27155. Urban Design with Nature. 100 Units.**

This course will use the Chicago region as the setting to evaluate the social, environmental, and economic effects of alternative forms of human settlement. Students will examine the history, theory and practice of designing cities in sustainable ways - i.e., human settlements that are socially just, economically viable, and environmentally sound. Students will explore the literature on sustainable urban design from a variety of perspectives, and then focus on how sustainability theories play out in the Chicago region. How can Chicago's neighborhoods be designed to promote environmental, social, and economic sustainability goals? This course is part of the College Course Cluster program: Urban Design.

Instructor(s): Sabina Shaikh and Emily Talen Terms Offered: Autumn

Note(s): This course counts towards the ENST 4th year Capstone requirement. Restricted to 3rd and 4th year students

Equivalent Course(s): GISC 27155, CEGU 27155, PBPL 27156, BPRO 27155, CHST 27155

#### **ENST 27325. Urban Ecology in the Calumet Region. 100 Units.**

This course will give students a foundation in the local ecology of the Calumet region. Students will use local research and habitats to understand fundamental concepts in ecology and explore some of these habitats during field trips with scientists and practitioners. As a class, we will examine the extent to which these fundamental ecological concepts are applicable in the urban ecology of the Calumet, and the role humans have had in modifying local habitats, as well as restoring natural and managing novel ecosystems. In 2022, the course focus will be on wetlands: their function ecologically, and their past, present, and future in the region.

Instructor(s): Alison Anastasio Terms Offered: Spring, not offered in 2022-23

Note(s): Attendance at the first class session is a requirement for enrollment in this course. This course is part of the Chicago Studies Quarter: Calumet but may be taken as a standalone class. Students interested in enrolling in all three Calumet Quarter classes should contact cskrable@uchicago.edu. For more information on the Calumet quarter, visit [chicagostudies.uchicago.edu/calumet](http://chicagostudies.uchicago.edu/calumet). This course will include mandatory Friday field excursions on 4/1, 4/8, 4/22, 5/6, 5/20, and 5/27.

Equivalent Course(s): CHST 27325, GEOG 27325, PBPL 27325

#### **ENST 27400. Epidemiology and Population Health. 100 Units.**

Epidemiology is the basic science of public health. It is the study of how diseases are distributed across populations and how one designs population-based studies to learn about disease causes, with the object of identifying preventive strategies. Epidemiology is a quantitative field and draws on biostatistical methods. Historically, epidemiology's roots were in the investigation of infectious disease outbreaks and epidemics. Since the mid-twentieth century, the scope of epidemiologic investigations has expanded to a fuller range non-infectious diseases and health problems. This course will introduce classic studies, study designs and analytic methods, with a focus on global health problems.

Instructor(s): D. Lauderdale Terms Offered: Autumn

Prerequisite(s): STAT 22000 or other introductory statistics highly desirable. For BIOS students-completion of the first three quarters of a Biological Sciences Fundamentals sequence.

Note(s): This course does not meet requirements for the biological sciences major.

Equivalent Course(s): STAT 22810, HLTH 20910, PPHA 36410, PBHS 30910

**ENST 27450. Cities in Motion: the Architecture of Public Transit. 100 Units.**

How do you get from A to B? Within and between today's urbanized areas, that seemingly simple question has become one of the most fraught and intractable problems. This course seeks to address questions about public transit across scales, from pedestrian and bicycle infrastructure at the level of individual intersections and blocks up to regional train networks and beyond. Like other design studio courses, the class will be project-based, and will ask students to develop a wide understanding of existing systems, but also to learn through creative design projects that expand their sense of what's possible. After working together to understand many existing transit solutions across different scales, to come to terms with and document Chicago's transit landscape, and to dream speculatively about untested transit possibilities both low- and high-tech, students will focus on building a portfolio of creative suggestions for their respective "clients" (e.g., the University of Chicago, the 4th Ward Alderman). Alongside this project work, assigned readings and explorations around Chicago will immerse students in the culture and philosophy of moving people and things, across different moments past, present and future.

Instructor(s): L. Joyner Terms Offered: Winter

Note(s): While this class does not require prior experience, all ARCH studio courses require consent. Starting November 6, please visit [arthistory.uchicago.edu/archconsent](http://arthistory.uchicago.edu/archconsent) to request instructor consent for this class or other ARCH studios. (Please do not send consent requests by email.)

Equivalent Course(s): CEGU 27450, ARTH 27450

**ENST 27521-27522. Energy in World Civilizations I-II.**

This two-quarter course sequence explores the historical roots of climate change and other global environmental problems by focusing on the social use of energy over time. Part I covers energy systems across the world from prehistory to the end of the nineteenth century. Part II investigates global energy systems from the early twentieth century to the present. The courses should be taken in chronological sequence. Taken together, they fulfill the general education requirement in civilization studies.

**ENST 27521. Energy in World Civilizations I. 100 Units.**

This two-quarter course explores the historical roots of climate change and other global environmental problems with a special attention to how energy use shapes human societies over time. Part I covers energy systems across the world from prehistory to the end of the nineteenth century.

Instructor(s): F. Albritton Jonsson Terms Offered: Winter

Prerequisite(s): Parts I and II should be taken in sequence. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): HIPS 17521, CEGU 27521, HIST 17521

**ENST 27522. Energy in World Civilizations II. 100 Units.**

This two-quarter course explores the historical roots of climate change and other global environmental problems with a special attention to how energy use shapes human societies over time. Part II covers energy systems across the world from the early twentieth century to the present, examining themes such as the uneven globalization of energy-intensive lifestyles, the changing geopolitics of energy, and possible futures beyond fossil-fuel dependence.

Instructor(s): J. Mead Terms Offered: Spring

Prerequisite(s): Parts I and II should be taken in sequence. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): HIST 17522, CEGU 27522, HIPS 17522

**ENST 27534. The Aspirational City: Chicago's Multicultural Communities. 100 Units.**

No city has meant more to the hopes and dreams of more divergent groups of Americans than Chicago. The Aspirational City: Chicago's Multicultural Communities will explore the histories of Chicago's various racial, ethnic and marginalized communities and the ways in which they have sought to fashion the destinies of themselves, their communities, and the city of Chicago. The course is a weekly seminar open to both undergraduate and graduate students.

Terms Offered: Spring

Equivalent Course(s): CRES 27534, HIST 27308

**ENST 28307. Global Environmental Humanities. 100 Units.**

This course is an introduction to the interdisciplinary field of environmental humanities, which calls on us to study the global environment, and the threats posed by globalization and climate change, using the tools of history, cultural studies, philosophy, and literature. Reading texts from these and other disciplines, we will attend to the ways that "environment" registers in political, aesthetic, and social life across the globe. Sample authors: Fernand Braudel, William Cronon, Dipesh Chakrabarty, Amitav Ghosh, Ursula Heise, Joseph Masco, Jed Purdy, Anna Tsing.

Instructor(s): Isabel Gabel Terms Offered: Autumn. Offered in Autumn 2023

Equivalent Course(s): HIST 25422, KNOW 28307, HIPS 28307, CEGU 28307, CHSS 38307, KNOW 38307

**ENST 28702. Introduction to GIS and Spatial Analysis. 100 Units.**

This course provides an introduction and overview of how spatial thinking is translated into specific methods to handle geographic information and the statistical analysis of such information. This is not a course to learn a specific GIS software program, but the goal is to learn how to think about spatial aspects of research questions, as they pertain to how the data are collected, organized and transformed, and how these spatial aspects affect statistical methods. The focus is on research questions relevant in the social sciences, which inspires the selection of the particular methods that are covered. Examples include spatial data integration (spatial join), transformations between different spatial scales (overlay), the computation of "spatial" variables (distance, buffer, shortest path), geovisualization, visual analytics, and the assessment of spatial autocorrelation (the lack of independence among spatial variables). The methods will be illustrated by means of open source software such as QGIS and R.

Instructor(s): Crystal Bae Terms Offered: Spring Summer. Offered 2023-24

Equivalent Course(s): SOCI 20283, PPHA 38712, CEGU 28702, SOCI 30283, GISC 28702, GISC 38702, ARCH 28702

**ENST 28722. Spatial Cognition. 100 Units.**

This course serves as an overview of spatial cognition and environmental perception, which relates to all aspects of spatial thinking, spatial behavior, and human-environment interaction in spatial and social contexts. Topics of study include cognitive maps and wayfinding behavior, spatial and environmental learning, spatial choice and decision-making, migration and travel, time geography, place and regional identity, and the role of gender and culture in spatial cognition.

Instructor(s): Crystal Bae Terms Offered: Spring. Offered 2023-24

Equivalent Course(s): GISC 37102, GISC 27102, CHST 27102

**ENST 28728. Climate Change and Society: Human Impacts, Adaptation, and Policy Solutions. 100 Units.**

Time is running out to prevent the worst impacts of climate change. The next decade will be critical both for the transformation of society and learning to adapt to changes that cannot be avoided, and climate change will be a key part of everyday life. This class discusses how we face this global challenge. During the course, our focus will be on the impacts of climate change upon society, and the necessity of solutions that deal with the global scope, local scales, and often unequal nature of the impacts. This interdisciplinary course covers the tools and insights from economic analysis, environmental science, and statistics that inform our understanding of climate change impacts, the design of mitigation and adaptation policies, and the implementation of these policies. Students will develop a mastery of key conceptual ideas from multiple disciplines relevant for climate change and acquire tools for conducting analyses of climate impacts and policies. The latter parts of the course will hone students' ability to apply and communicate these insights through practical analysis of national policies and writing op-eds about climate-related issues. The goal is to help students from any background become informed and critically-minded practitioners of climate-informed policy making, able to communicate the urgency to any audience.

Instructor(s): Jina, A. Terms Offered: Winter

Note(s): This course is intended to be accessible to people from all disciplines and backgrounds interested in climate solutions. Some introduction to statistics and economics (e.g., PBPL 20000 or ECON 20000) may be helpful, but definitely not essential.

Equivalent Course(s): CEGU 28728, PBPL 28728

**ENST 28800. Readings in Spatial Analysis. 100 Units.**

This independent reading option is an opportunity to explore special topics in the exploration, visualization and statistical modeling of geospatial data.

Instructor(s): Staff Terms Offered: Autumn Spring Winter 2023-24

Note(s): This course is consent-only. Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading.

Equivalent Course(s): GISC 28700, GISC 38700

**ENST 28925. Health Impacts of Transportation Policies. 100 Units.**

Governments invest in transport infrastructure because it encourages economic growth and mobility of people and goods, which have direct and indirect benefits to health. Yet, an excessive reliance on motorized modes of transport harms population health, the environment, and social well-being. The impact on population health is substantial: Globally, road traffic crashes kill over 1.3 million annually. Air pollution, to which transport is an important contributor, kills another 3.2 million people. Motorized modes of transport are also an important contributor to sedentary lifestyles. Physical inactivity is estimated to cause 3.2 million deaths every year, globally. This course will introduce students to thinking about transportation as a technological system that affects human health and well-being through intended and unintended mechanisms. The course will examine the complex relationship between transportation, land use, urban form, and geography, and explore how decisions in other sectors affect transportation systems, and how these in turn affect human health. Students will learn to recognize how the system level properties of a range of transportation systems (such as limited-access highways, urban mass transit, inter-city rail) affect human health.

Instructor(s): Bhalla, Kavi Terms Offered: Spring

Equivalent Course(s): ARCH 28925, HLTH 28925, PBPL 28925

**ENST 29400. Climate Change and Human Mobility. 100 Units.**

A 2021 UN report estimated that 21.5 million people have been forced to move, each year, for over a decade, due to climate change. The report states: "weather-related crises have triggered more than twice as much displacement as conflict and violence in the last decade" (UNHCR, 2021). In spite of mounting evidence that climate change is to blame for these catastrophic weather-related events and associated increases in migration, the UNHCR eligibility criteria for refugee status doesn't include climate change. Due to political challenges involved in considering such a definition change, the UN convened member states to establish a global compact for migration that takes the effects of climate change into consideration. The Global Compact suggests rights and obligations of climate change migrants, and standards to guide sovereign states in protecting these rights. Given the growth in climate change related migration over the last decade, and the complicated nature of implementation with such a broad international instrument such as the Global Compact, there is much room for development within the climate change and human mobility sector. This course will: examine the issue of climate change and its relationship to human mobility using human rights, political ecology, and social policy perspectives; consider how these different perspectives for understanding the problem suggest different types of policy solutions; and consider the impact of these solutions for those affected.

Terms Offered: TBD

Equivalent Course(s): CEGU 69400, CEGU 29400, HMRT 39401, CHST 29400, SSAD 69400, SSAD 29400

**ENST 29520. Sustainability and Computing. 100 Units.**

Once a darling of the economy, the computing industry has come under fire as "techlash" brings a spotlight to its negative environmental and societal impacts. We focus on understanding computing's environmental impact, and the productive and substantial (not greenwashing) actions that can be taken to reduce it. The objective of this course is to expose students to a sophisticated view of how computing affects the environment, and how it can become more sustainable through action in several dimensions, including technology invention and design, business/ecosystem structure, individual and government action. Students will be empowered with the intellectual tools to understand and act with insight on these issues in their professional careers.

Prerequisite(s): Students must be in their third or fourth year of study.

Note(s): This course may be used as a College elective, but not as a CS major elective.

Equivalent Course(s): BPRO 29520, CEGU 29520, CMSC 39520, CMSC 29520

**ENST 29801. BA Colloquium I. 100 Units.**

This colloquium is designed to aid students in their thesis research. Students are exposed to different conceptual frameworks and research strategies. The class meets weekly.

Instructor(s): Sabina Shaikh Terms Offered: Autumn

Prerequisite(s): Students must have an approved topic proposal and a faculty reader.

Equivalent Course(s): CEGU 29801

**ENST 29802. BA Colloquium II. 100 Units.**

This colloquium assists students in conceptualizing, researching, and writing their BA theses.

Instructor(s): Christopher Kindell Terms Offered: Winter

Prerequisite(s): Students must have an approved topic proposal and a faculty reader.

Equivalent Course(s): CEGU 29802

