GEOGRAPHY

spring 2021 course announcement

GEOG 1001

Environmental Systems: Climate and Vegetation

Dr. Rachel Isaacs
rachel.isaacs@colorado.edu

GEOG 1001 - 300E & 581

Environmental Systems: Climate and Vegetation

Instructor: Dr. Steven Welter
steven.welter@colorado.edu

Continuing Education Classes are Billed Separately. See course notes for billing details.

The objective of this course is to provide you with an introduction to the Earth's climate system and patterns of world vegetation. We will emphasize the many linkages and feedbacks between the non-living (abiotic) and living (biotic) components of the earth system.

Topics we will cover include radiation, temperature, winds and pressure, the water cycle, climate change, and biomes. This course will prepare you for subsequent, more specialized courses in climatology, hydrology, ecology, and biogeography (ecosystems and cycles). This is a natural science course, and graphs and basic algebra-level math calculations will be used to help understand the concepts covered.

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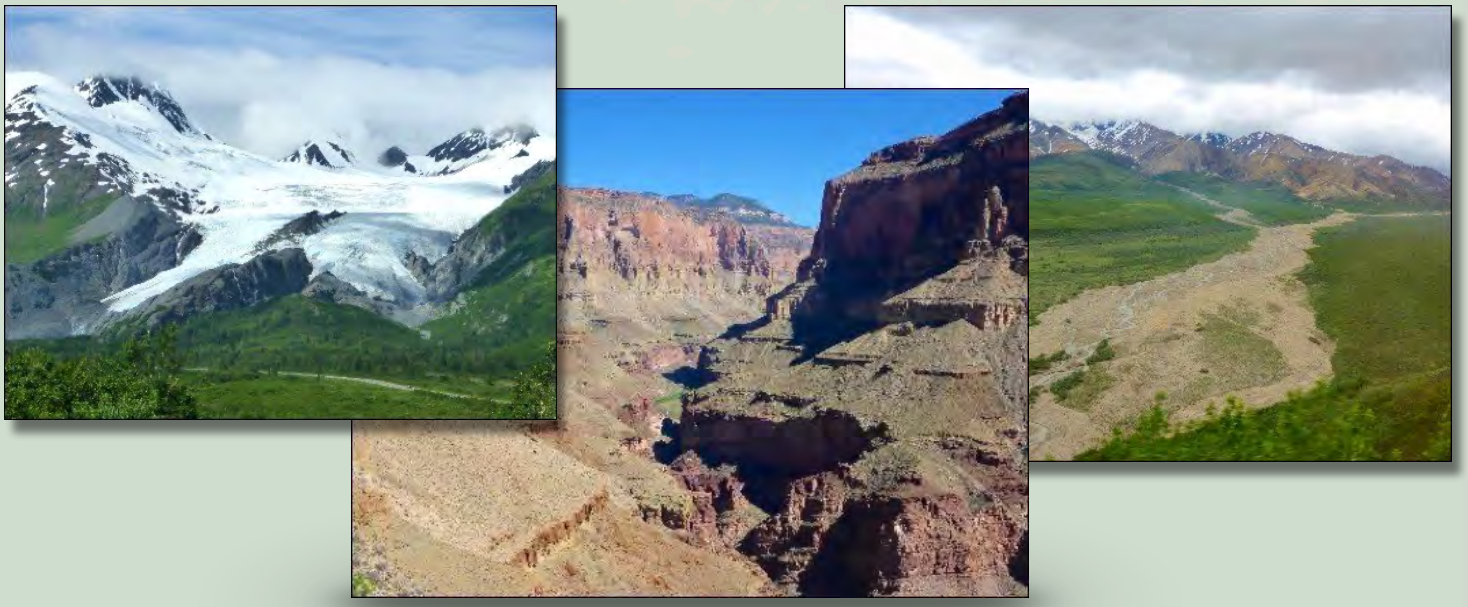
spring 2021 course announcement



GEOG 1011

Environmental Systems: Landscapes and Water

Professor Katherine Lininger
katherine.lininger@colorado.edu

GEOG 1011 - 300E, 581

Environmental Systems: Landscapes and Water

Instructor: Dr. Steven Welter
steven.welter@colorado.edu

Continuing Education Classes are Billed Separately. See course notes for billing details.

Earth's landscapes – the natural surfaces composed of rock, soils, water and vegetation – are always changing. These landscapes host life and human activity. Knowledge of how the Earth's surface changes is necessary to ensure public safety, provide food and water security, and support ecosystem management – and thus this knowledge is relevant to diverse career pursuits.

Topics covered include the basic geologic processes of plate tectonics, volcanoes, and earthquake. We then explore how the land surface is shaped by water and physical processes, focusing on weathering, soils, hydrology, fluvial processes, glaciers, climate change, and human impacts. By the end of the course, you will be familiar with the primary physical processes involved in the formation of the Earth's landscapes. You should also be able to generally describe how these natural sciences are related to important scientific and societal issues.

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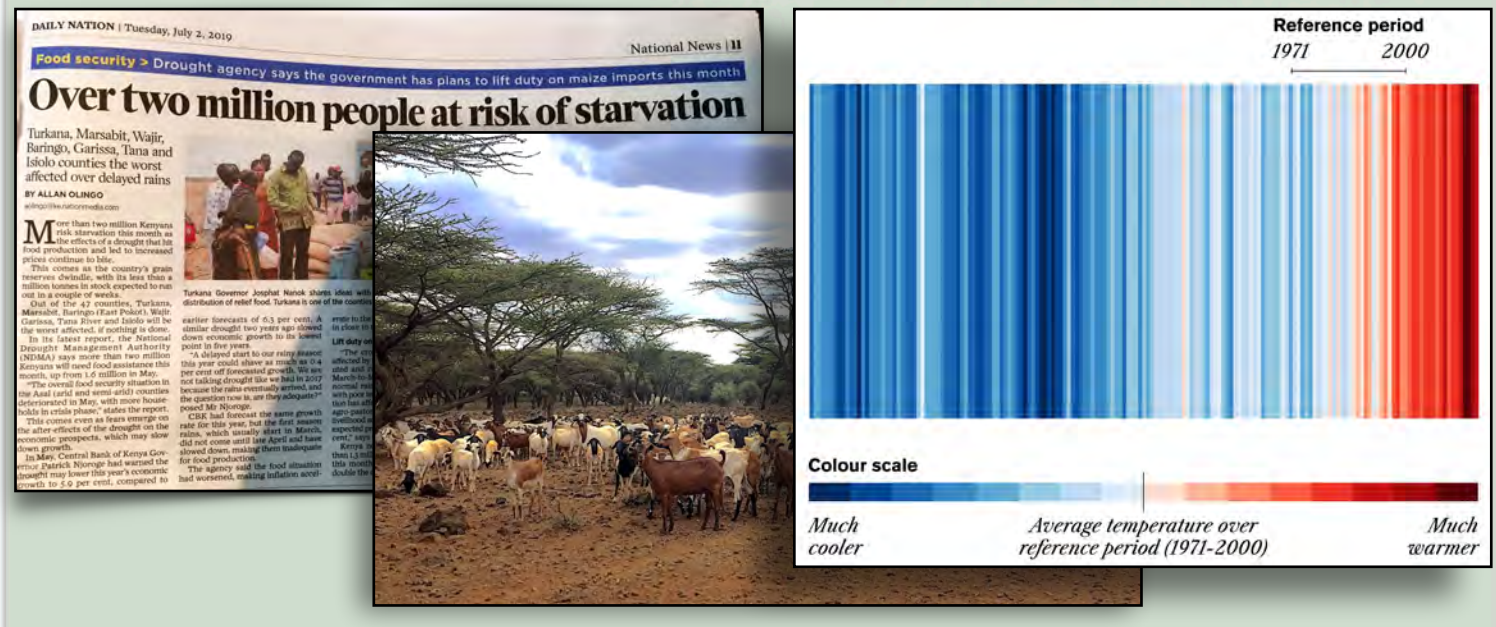

GEOG 1962

Geographies of Global Change

Professor John O'Loughlin
johno@colorado.edu

Professor Bill Travis
travis@colorado.edu

Professor Mara Goldman
mara.goldman@colorado.edu

The course focuses on contemporary issues of the relationship of people to their natural environment. The class has three modules. Module 1 reviews the main consequences for humans of climate change, especially migration, food security and resource scarcities with a focus on Africa. Module 2 examines the interaction of people and nature via the persistent patterns of natural and technological disasters in rich and poor countries. Module 3 examines the power dynamics of gender, race and class as part of environment and development processes involving climate change and environmental justice.

The class is team-taught by three professors who are expert in the respective topics and serves as an introduction to geographic perspectives on matters of contemporary global importance and that involve difficult personal and political choices. The lectures in Spring 2021 are remote while the recitations offer a mix of in-person and remote options.

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spring 2021 course announcement

GEOG 1972

Environment-Society Geography

Dr. Abby Hickcox
abby.hickcox@colorado.edu

The study of global environmental issues evokes one of the most profound questions of our times: What is, and what ought to be, the relationship between humans and the environment? To answer this, we must also ask: What is "nature" and how do people of different cultures conceptualize it differently? What drives human modification of the earth and its non-human inhabitants, and how are specific groups of people differentially affected by these modifications? What kinds of assumptions have led to the creation of certain environmental problems, and for whom or what are they problems? Topics we will cover include anthropogenic climate change; population and consumption; hazards, ethics, and environmental justice; conservation; wolves; trees/deforestation; food/agriculture, water, and waste. We will draw from examples around the world to critically examine how environmental problems are defined and tackled and what this tells us about nature-society relations more broadly.

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This class fulfills a MAPS requirement and a requirement for the Geography Major; it is also a great introduction to "Environment-Society" Geography Track.

GEOGRAPHY

spring 2021 course announcement

GEOG 1972 - 581

Environment-Society Geography

Instructor: Diego Melo
diego.melo@colorado.edu

Continuing Education Classes are Billed Separately. See course notes for billing details.

Are you interested in studying global and regional environmental issues from a political ecology perspective? In this course, we explore ten analytical approaches that are useful to understanding the relationship between humans and the environment. Through a combination of lectures, readings, and documentaries we ask: What is "nature" and how do people in *various places* with *different histories* conceptualize it differently? What drives human modification of the earth's ecosystems, how are specific groups of people *differentially affected* by these modifications, and how are social movements throughout the world acting in response? Topics we will cover include anthropogenic climate change; environmental hazards, racism, and justice; wildlife conservation, land enclosures, and electronic waste; forest management, water-based social movements, and the rights of nature. We work toward an understanding of "nature" that is inseparable from the history of colonialism, capitalism, and the gendered division of labor, as we learn more about environmental justice debates in the United States, Ecuador, New Zealand, Tanzania, and India. After these fifteen weeks, you will have a sharp lens to interpret the social relations that have produced what we call "nature" and "the environment." Your perspectives on environmental activism will change forever!

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This class fulfills a MAPS requirement and a requirement for the Geography Major; it is also a great introduction to "Environment-Society" Geography Track.

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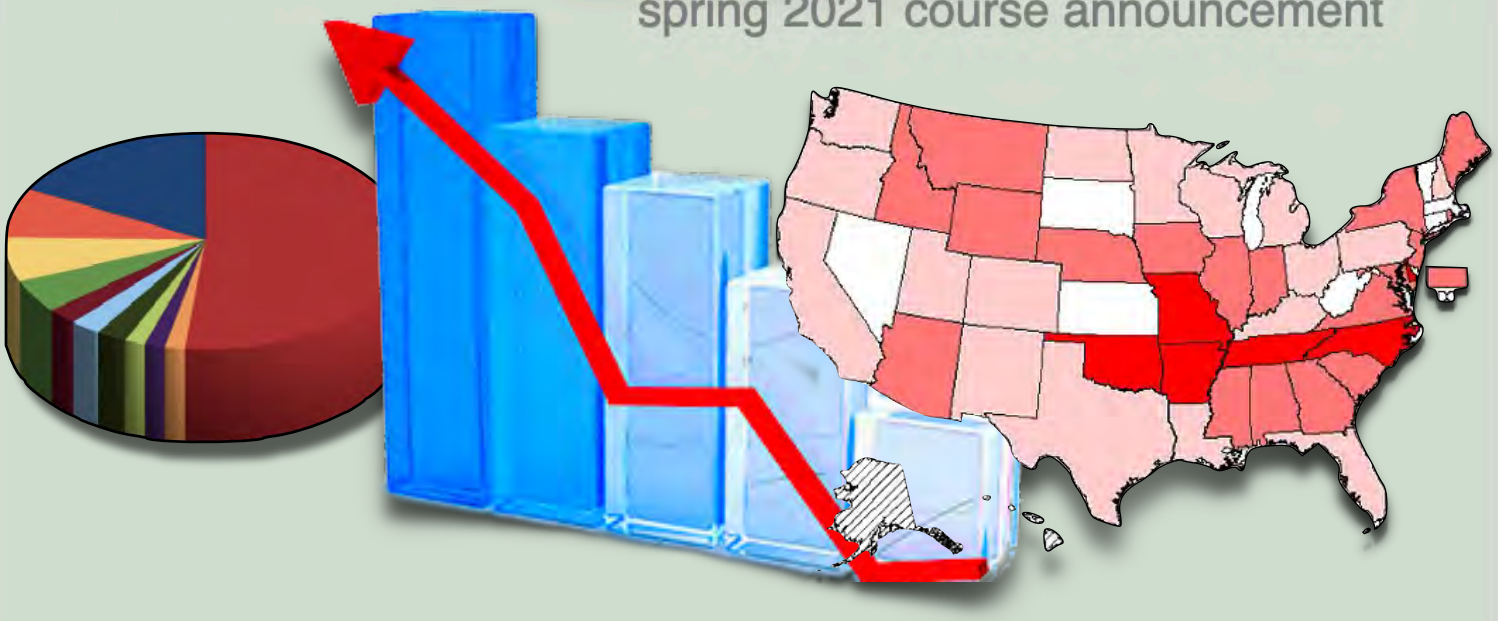


GEOG 3023

Statistics and Geographic Data

Professor Morteza Karimzadeh
karimzadeh@colorado.edu

GEOG 3023 - 581

Statistics and Geographic Data

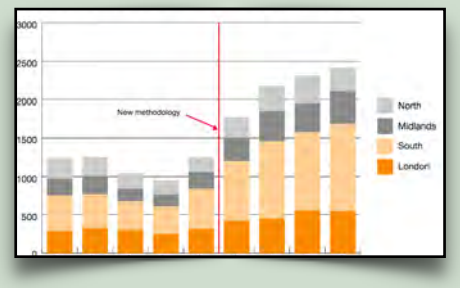
Instructor: Francis Naylor
francis.naylor@colorado.edu

Continuing Education Classes are Billed Separately.
See course notes for billing details.

From fitness trackers to Facebook to polls on politics and other issues, our world is flooded with data. Careers in Data Science are in high demand, and technological and societal changes make data available on nearly everything.

In this course, we teach you how to understand and model the relationships between data and your world. You'll learn how to collect data, learn modeling techniques, and develop questions that we can answer with statistical methods. The course is hands-on and will guide you in using the latest statistical software to produce graphics, answer questions, and find patterns about the world around us.

This course does not assume any previous experience with statistics. It satisfies the statistics requirement for the Geography major, and serves as a great introduction to data modeling for any Geography major or minor.



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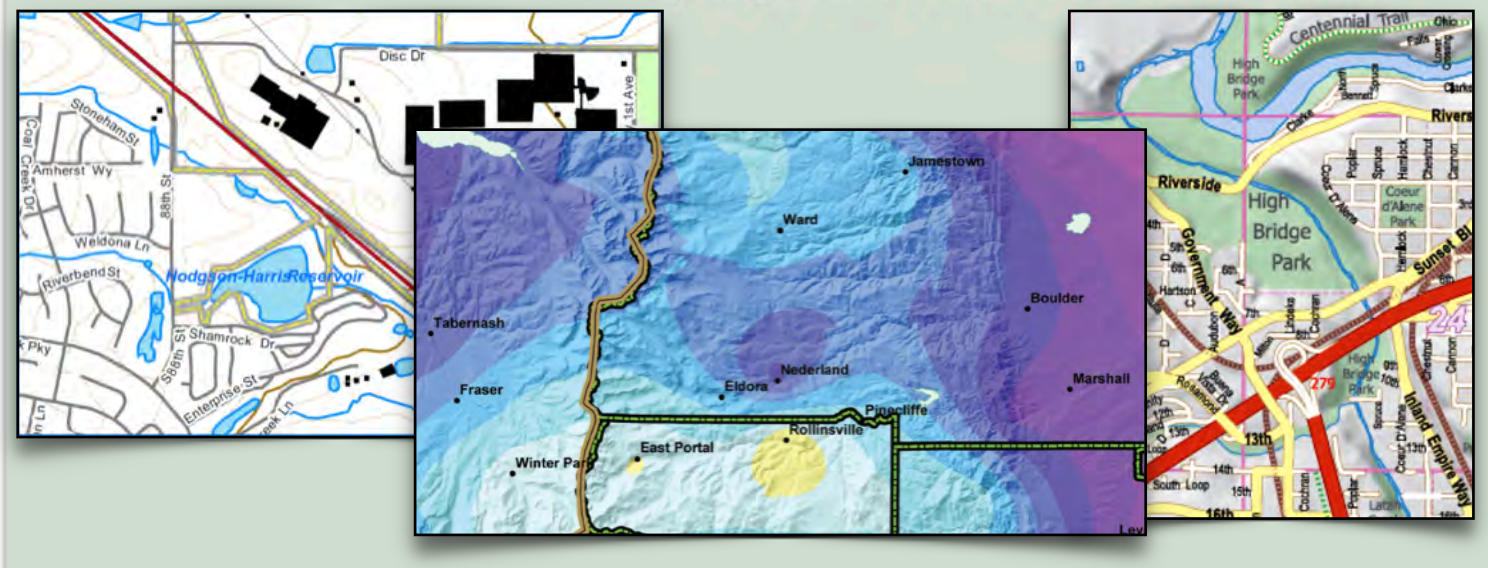
spring 2021 course announcement



GEOG 3053

Geographic Information Science: Mapping

Instructor: Sarah Kelly
sarah.kelly@colorado.edu

Mapping and data visualization supports many tasks in Geography, Environmental Studies, Earth Sciences and Human and Social Sciences. Maps can help you explore spatial data, perform analysis, and present meaningful results. Knowing how to put together a database and process layers of terrain, water, roads, and thematic data (vegetation, population, etc.) in order to make a map is an extremely useful skill that many employers are seeking. Come learn what it is all about!

This course provides a technical introduction to mapping and information design in a GIS environment. We'll cover principles of scientific visualization, graphical design, and mapping. You'll learn how to manipulate scale, work with and change map projections, how to select informative colors, how to classify map data, and how to symbolize data, and how to quantify patterns of error on maps. In lab, you will design maps and create a working cartographic database. By the end of this course, you will be capable of creating high quality cartographic displays and work comfortably with Desktop ArcGIS software to process spatial data.

Some prior experience with Apple or Windows computing is expected. No previous experience in ArcGIS or mapping technologies is required. GEOG 3053 is a prerequisite for the Geography GIS courses. A beginning course in statistics is strongly recommended and may be taken concurrently.

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spring 2021 course announcement

GEOG 3251 - 581, 582

Mountain Geography

Dr. Sam Smith
sasm9866@colorado.edu

Continuing Education Classes are Billed Separately.
See course notes for billing details.

The world's mountains are fascinating and mysterious landscapes. Created by geologic activity, shaped by water and ice, and transformed by vegetation and human activity, mountain landscapes offer a unique perspective into historical and current events. Using mountain landscapes as our study area, this course will examine the interactions and connections among key topics in physical and human geography. Daily presentations and frequent hands-on activities will apply geographic concepts to the Colorado Rockies as well as mountain ranges around the world. To explore our mountain landscapes, local examples will be used to examine how wildfire impacts local forests and human communities, and investigate how historic mining and continuing human activities have shaped the mountain landscapes in our backyard.

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spring 2021 course announcement

GEOG 3402

Natural Hazards

Professor Bill Travis
william.travis@colorado.edu

This class examines the interaction of society and natural extremes, with particular attention to exposure, vulnerability, preparedness, mitigation, and recovery from natural disasters. Our social science approach differentiates this class from courses on natural disasters taught as natural science, where the emphasis is on the physical processes (like tectonics and volcanism). We treat the subject as both an academic field of inquiry that provides insight into social structures, human behavior, and environment and society relationships, and as a professional field in which students learn methods and skills that can be applied to careers in environmental and hazards management. While we will briefly cover the physical science of hazards like hurricanes, floods, and earthquakes, the focus is on human geography: how people and institutions perceive and respond to hazards and how development in hazardous areas increases risk. Given the time, we will also briefly examine technological hazards and disasters.

This is a lecture class, with exercises and exams. The material is in four main categories: (1) concepts and principles, including material on the nature of extreme events, social exposure and vulnerability, trends in hazard impacts, and ways to measure and characterize hazards and risks; (2) specific hazards like hurricanes, floods and earthquakes; (3) hazard impact reduction, including mitigation, warning systems; land use; insurance; and recovery; and (4) special topics such as events in the news.

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spring 2021 course announcement

GEOG 3422
Political Ecology

Dr. Heide Bruckner
heide.bruckner@colorado.edu

'The environment' figures centrally in our daily lives and academic pursuits, from concerns over climate change and biodiversity loss, to water policy and the environmental consequences of rapid urbanization. Yet we rarely stop to consider the specific historical, political, cultural, and economic contexts of these issues.

A political ecology approach seeks to draw attention to the politics involved in mediating access to resources and in negotiating nature-society relations. This class will consider the power dynamics involved in knowing, managing, and making claims on the environment, including those related to gender, class, race, indigeneity and nationality. We will discuss the creation of political ecology as a specific intellectual perspective, and explore its value for understanding a diversity of topics including water, energy, food systems, urban environmental politics, and conservation in both the global north and global south. You will leave the class with a more complete view of environmental debates and the guiding principles that make political ecology a strong and exciting field.

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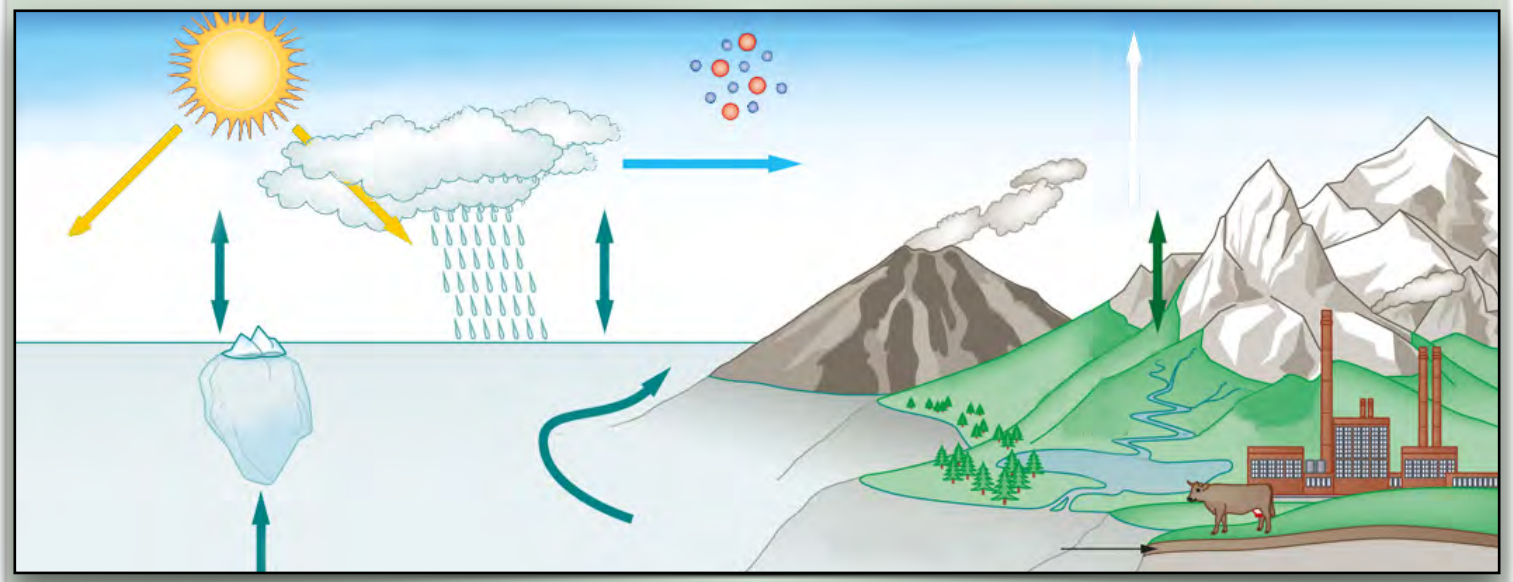
spring 2021 course announcement



GEOG 3601

ATOC 3600/ENVS 3600

Principles of Climate

Dr. Rachel Isaacs
rachel.isaacs@colorado.edu

This course describes the basic components of the climate system: the atmosphere, ocean, cyrosphere, and lithosphere. We will investigate the basic physical processes that determine climate and the link between the components of the climate system. Emphasis is placed on the hydrologic cycle and its role in climate, climate stability, and global change. The theme throughout this course will be an examination of the importance of climate as one of the major forcing functions in environmental change. Both human-induced and natural climate variability will be covered.

GEOGRAPHY

spring 2021 course announcement

GEOG 3612

Geography of American Cities

Dr. Heide Bruckner
heide.bruckner@colorado.edu

The 21st century is an urban century with more than 80% of Americans currently living in cities. Cities dominate the economic landscape, and are widely recognized as the epicenter of political activity, creativity, and opportunity. Yet, cities are also the places where inequality is the most visible. The urban environment can be understood as contested territory where differences in power and influence between various socio-economic and racial groups become apparent. This course examines the historical, economic and cultural factors which make cities at once spaces of struggle and possibility.

We will apply different theoretical perspectives, ranging from Marxism to community planning, and based on two guiding questions:

1. **What is the city for?**
   How are urban spaces actively produced, and for what ends?
2. **Who is the city for?**
   Who is included/excluded in urban spaces, why, and how?

To analyze these questions, we will draw heavily on case studies from around the United States, including Boulder. We will pay special attention to the socio-spatial politics which shape the American urban.

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spring 2021 course announcement

GEOG 3672

Gender and the Global Economy

Professor A. Marie Ranjbar
ranjbar@colorado.edu

This course will examine how gender and sexuality is constructed locally, nationally, and globally, drawing on conversations about feminist pasts, presents, and futures.

We will focus on how gender intersects with race, class, sexuality, ability, religion, ethnicity, and geopolitical location to structure the lived experiences of women across the globe.

We will apply critical geographic perspectives to gender inequality, exploring the overlaps and differences in women's and LGBTQ+ struggles as they are shaped by ongoing socio-cultural, political, and economic conditions globally.

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spring 2021 course announcement

GEOG 3682 - 581

Geography of International Development

Instructor: Gabriella Subia Smith
gabriella.subiasmith@colorado.edu

Continuing Education Classes are Billed Separately. See course notes for billing details.

Today, amid rising global debates about migration, regional instabilities from the Mediterranean to the South China Sea, and transnational corporations increasingly involved in everything from poverty to governance to climate change, the politics of international development could not be more urgent.

What is the role of international assistance in a world marked by imperialism and inequity? How do actors in the “global South” deal with livelihood and governance issues that crosscut economics, politics, history and tradition? How is “Development” itself changing as the United State's place in the world is increasingly unsettled?

This course uses the lens and tools of human geography to explore these questions. Examining cases from Latin America, sub-Saharan Africa, South Asia, the Middle East and the Pacific Rim, this course surveys the changing terrain of international development at the dawn of the Twenty-first Century.

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spring 2021 course announcement

GEOG 3692

Introduction to Global Public Health

Professor Colleen Reid
colleen.reid@colorado.edu

GEOG 3692 - 581

Introduction to Global Public Health

Instructor: Caitlin Ryan
caitlin.ryan@colorado.edu

Continuing Education Classes are Billed Separately. See course notes for billing details.

This course explores critical issues in global public health through a biosocial lens, incorporating the biological, economic, political, social and cultural influences on health. We take a candid look at the challenges of quantifying health as well as the issues of past health and development initiatives (with a focus on developing countries). We examine the tensions between intellectual property rights and the fundamental need for affordable medicines as played out in the cases of TB and HIV. We delve into the roles of the World Health Organization, nongovernmental organizations and ministries of health in addressing both infectious and non-communicable diseases. We explore health care systems and consider the essential elements of systems which improve accessibility and quality of care for its citizens. We look at the future priorities of global health, including the impact of climate change on health. Students will read and discuss case studies on global health, conduct a guided semester-long research project on the health of a developing country, and take 3 non-cumulative exams. This is a 4-credit course.

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spring 2021 course announcement

GEOG 3742

Place, Power, and Contemporary Culture

Professor Azita Ranjbar
ranjbar@colorado.edu

What is 'power,' and how are spaces produced through relationships of power? GEOG 3742 introduces students to key theories and contemporary debates in critical and feminist geography through a focus on the themes of power, space, and culture as conceptual frameworks. We will apply critical geographic perspectives on power to the topics of: colonialism and imperialism; states and territoriality; transnational migration and human rights; conflict and nationalism; environmental politics and social movements; and connections between local and transnational activism.

The course is structured around four units:
i) feminist geographies;
ii) postcolonial geographies;
iii) environmental injustice and queer ecologies;
iv) decolonial geographies.

While many of our readings are theoretical, we will draw from contemporary examples from different regions of the world – Canada, India, Iran, Lebanon, Mexico, Russia, Tajikistan, South Africa, Ukraine, United Kingdom – to ground our studies.

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spring 2021 course announcement

GEOG 3812

Geography of Mexico, Central America, and the Caribbean

Professor Joe Bryan
jbryan@colorado.edu

"Poor Mexico! So far from God and so close to the United States." This phrase is often used to characterize not only Mexico's complicated geopolitical relationship to the United States, but also that of Central America and the Caribbean. This course develops a critical geographical approach to understand this sentiment, analyzing the social relation, physical qualities, and political economic divisions that shape this region. We will focus on the human dimensions of these relationships, developing an understanding of how this region has come to be, the forces that shape it, and its contemporary place in the world.

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spring 2021 course announcement

GEOG 3822 - 581

Geography of China

Instructor: Xi Wang
xi_wang@colorado.edu

Continuing Education Classes are Billed Separately.
See course notes for billing details.

China is one of the fastest changing countries on earth. With hundreds of new cities under construction, rapidly accumulating wealth among the middle and upper classes, a precarious environment and resource-base, and rising geopolitical ambitions, understanding a changing China is more important now than ever before. Yet as China's influence grows, it seems to become more misunderstood than ever.

This course aims to explore China's changes, as well as dispel common myths about contemporary China, through the lens of human geography.

We explore China's diverse environmental and cultural landscapes, its historical geography, and the challenges of rural development, urbanization, environment, energy, and climate change.

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spring 2021 course announcement

GEOG 3832

Geographies of South Asia

Professor Jennifer Fluri
jennifer.fluri@colorado.edu

This course will examine the Geographies of South Asia through four interrelated themes: Territory, Trade, Transportation, and Tributaries. Territory will cover the physical geographic characteristics of South Asia, along with the social and political histories that have transformed South Asian geographies. Trade will focus on the economic geographies of South Asia prior, during, and after colonization. Transportation examines the changing geographies of mobility in South Asia from roads to railroads and airports. Tributaries address the politics of water resources among nations in South Asia and the social/cultural significance of water bodies.

We will investigate gender roles and relations as a lens through which to examine the diverse identities and cultures of South Asia. The course will begin with a general overview of the region followed by more extensive study of India, Pakistan, Afghanistan, Nepal, Sri Lanka, Bangladesh, Burma/Myanmar, and Bhutan.

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spring 2021 course announcement

GEOG 3882

Geography of the Former Soviet Union

Professor John O'Loughlin
johno@colorado.edu

Russia has been in the news a lot recently, with much attention to Vladimir Putin and his actions. The former Soviet Union is a hugely complex place and is changing rapidly in diverse ways.

The course goals are to give students the background to understand contemporary events. We will focus on contemporary Russian geographies with special attention to political, social and environmental developments since 2000. Russian foreign policy and Russian interventions in the 'near abroad' (countries bordering Russia) will be examined as well as internal conflicts around religious identities, civil liberties, and environmental crimes.

Readings are a mix of academic articles and books/accounts for an educated public. Students will write a book review (of a selection of contemporary works), term paper, 4 short responses/reviews, and a take-home final exam.

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spring 2021 course announcement

GEOG 4023/5023

Advanced Quantitative Methods for Spatial Data

Professor Guofeng Cao
guofeng.cao@colorado.edu

Methods and models for analyzing spatial data are new and in many cases, quite complex. The special nature of spatial data means that geospatial researchers need to develop tools and methods that are specific to spatial data, but that are easy to combine with other forms of analysis. This course covers a number of techniques aimed at the analysis and understanding of spatial data. We will cover statistical methods that are commonly used in geography including hypothesis tests, linear and non-linear regression, spatial and temporal autocorrelation, spatial modeling, geographically weighted regression, spatial lag and spatial error models, and other geocomputational methods.

Students will receive exposure to the latest issues, statistical approaches, and application perspectives. Lectures, classroom discussions, reading assignments, and lab exercises will provide students with hands-on training and problem-solving experience. The course will be of interest to students interested in the analysis of geospatial data from a variety of perspectives, including human and natural environments.

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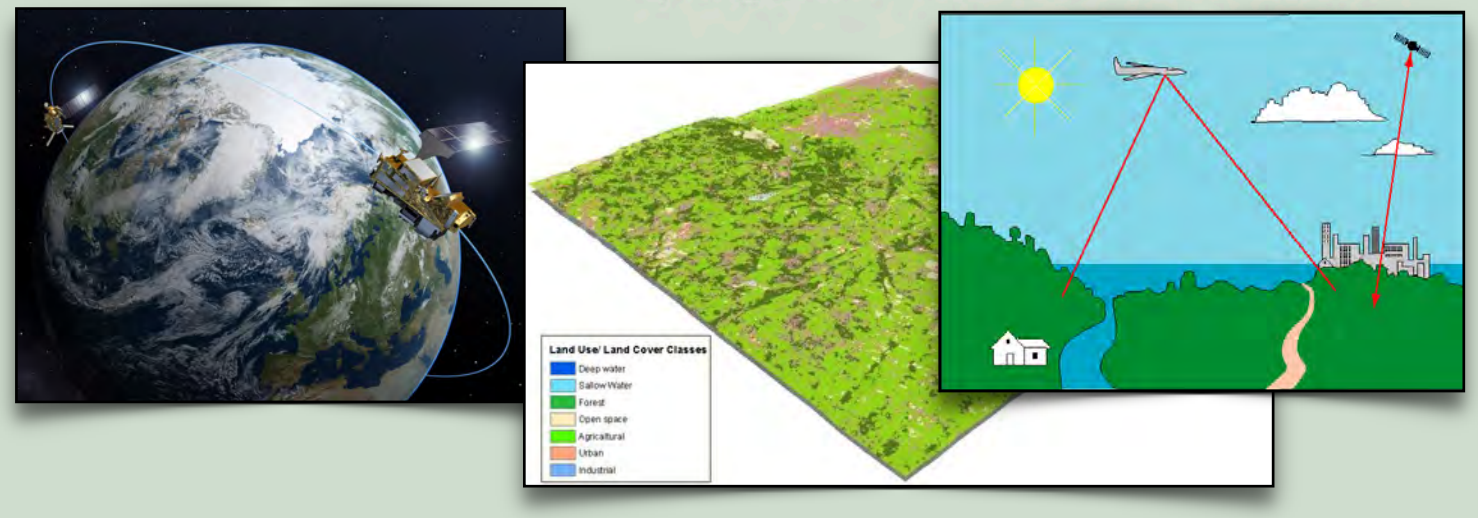

GEOG/GEOL 4093/5093

Remote Sensing of the Environment

Dr. John Adler
john.adler@colorado.edu

GEOG 4093/5093 - 581

Remote Sensing of the Environment

Dr. Rachel Isaacs
rachel.isaacs@colorado.edu

Continuing Education Classes are Billed Separately. See course notes for billing details.

Global environmental change is one of the most pressing international issues of this century. There is a need to monitor the earth's vital signs from atmospheric ozone to sea level change.

Satellite data sets are critical for monitoring regional and global changes, determine natural variability of Earth systems and addressing fundamental global change issues. The course is designed to introduce students to the techniques of remote sensing measurements of environmental parameters from aircraft and satellite platforms. The course is based on the application of simple physical principles of electromagnetic radiation. Different sensing systems such as electro-optical systems, passive microwave systems, ranging systems, and scattering techniques will be discussed with applications for the atmosphere, cryosphere, lithosphere, and biosphere.

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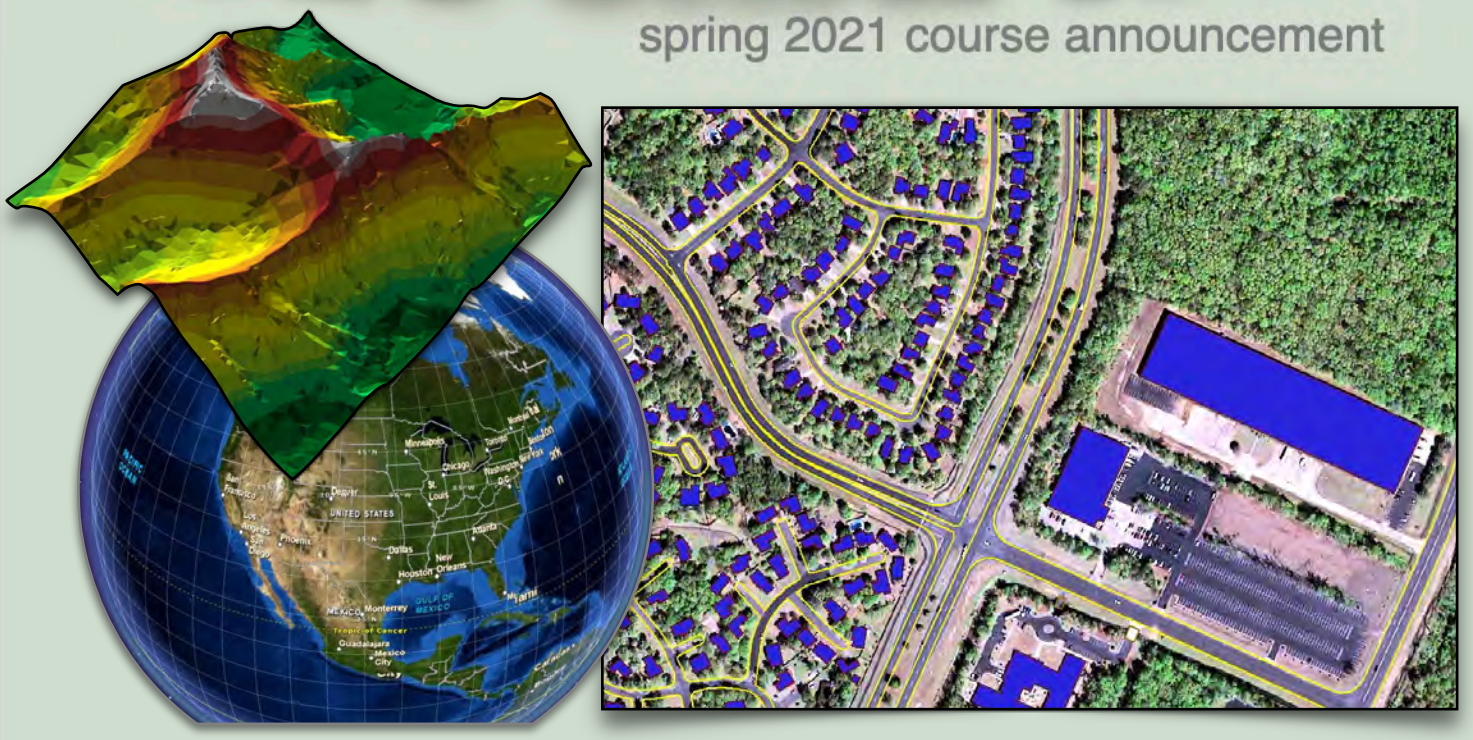

GEOG 4103 / 5103

Geographic Information Science: Spatial Analytics

Prerequisites:

GEOG 3053 (GIS: Mapping) or similar, GEOG 3023 (Statistics and Geographic Data)

Professor Guofeng Cao
guofeng.cao@colorado.edu

Are you ready to bring your GIS skills up to the next level? This course introduces the theoretical concepts and advanced use of Geographic Information Systems (GIS). It focuses on the nature of geographic information, the management of geospatial data and available methods for geographic analysis and geoprocessing to perform advanced and complex modeling in a GIS environment. Lectures focus on the theoretical basis of GIScience, the understanding of spatial algorithms and the development of a critical attitude toward GIS operations and model outputs. During lab sessions students will be able to apply the concepts and techniques presented in lectures and become well-trained in using GIS software. The aim of this course is that students understand elementary GIS theory, have a working knowledge of ArcGIS, and be able to develop GIS-based solutions for spatial problems, independently. In short: You will be ready for starting your professional GIS career.

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spring 2021 course announcement

GEOG 4271/5271

The Arctic Climate System

Professor Mark Serreze
mark.serreze@colorado.edu

The Arctic region plays a key role in regulating global climate and is in the midst of rapid change, with impacts on physical, biological and human systems both within and beyond the region.

This comprehensive assessment of the Arctic climate system begins with an overview of the Arctic's basic physical characteristics and climatic features.

Attention then turns to the atmospheric energy budget, the atmospheric circulation, the surface energy budget, the hydrologic cycle, and the fascinating interactions between the atmosphere, Arctic Ocean and its sea ice cover. Following an overview of numerical modeling of the Arctic system, we explore Arctic climate history over the past two million years. The final segment of the course explores the future of Arctic climate and potential impacts on society, including issues such as increased access to oil, gas and mineral wealth at the bottom of the ocean, commercial shipping and conflict between stakeholders.

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spring 2021 course announcement

GEOG 4321/5321
Snow Hydrology

Professor Noah Molotch
noah.molotch@colorado.edu

Are you interested in the various processes related to snow in mid-latitude and polar areas? You will learn the physics and chemistry that underlie processes such as snow metamorphism, and apply this knowledge to real situations, including calculation of basin storage of water, runoff rates, acid snow, and avalanche dynamics.

The course will cover snow formation in the atmosphere, snow accumulation and distribution, snow metamorphism, avalanche dynamics, snowmelt and runoff, remote sensing of snow properties, and case studies in the Rockies and Sierra Nevada.

Prerequisites are a physical geography course or equivalent, and a parametric statistics course.

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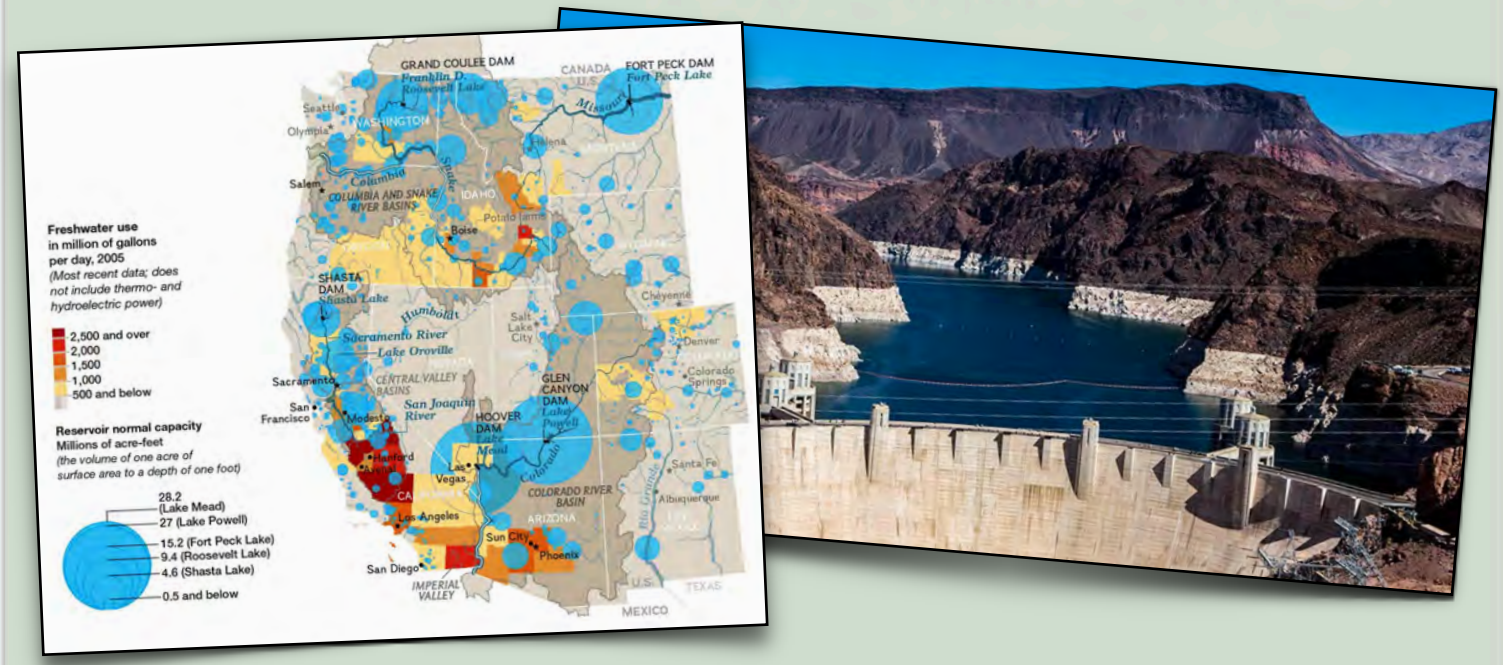

GEOG 4501/5501

Water Resources and Management of the Western U.S.

Professor Bill Travis
william.travis@colorado.edu

This course serves upper-division undergraduate students and grad students. It starts with a broad geographical overview of water resources in the American West, drawing on primary and secondary literature to define the physical and social dimensions of western water and to explicate key elements like regional hydrology (e.g., snowpack and runoff), urban/industrial/agricultural demand and use, and the physical (e.g., dams, canals, and tunnels) and institutional (e.g., water rights, allocation compacts, legal precedents) mechanisms by which water is managed for economic and ecological values. The coursework leads to a capstone project addressing key issues in water managements, with groups investigating subjects such as the effects of climate change, revising the Colorado River Compact, urban-rural interactions, and specific water system case studies. Students will become conversant in detail with selected aspects of western water that can be a base for expertise and career tracks associated with water resources analysis and management.

In Spring, 2021 this class will be offered as a remote course in hybrid format of live online sessions, asynchronous material such as water webinars, trainings, and podcasts, and group projects developed remotely.

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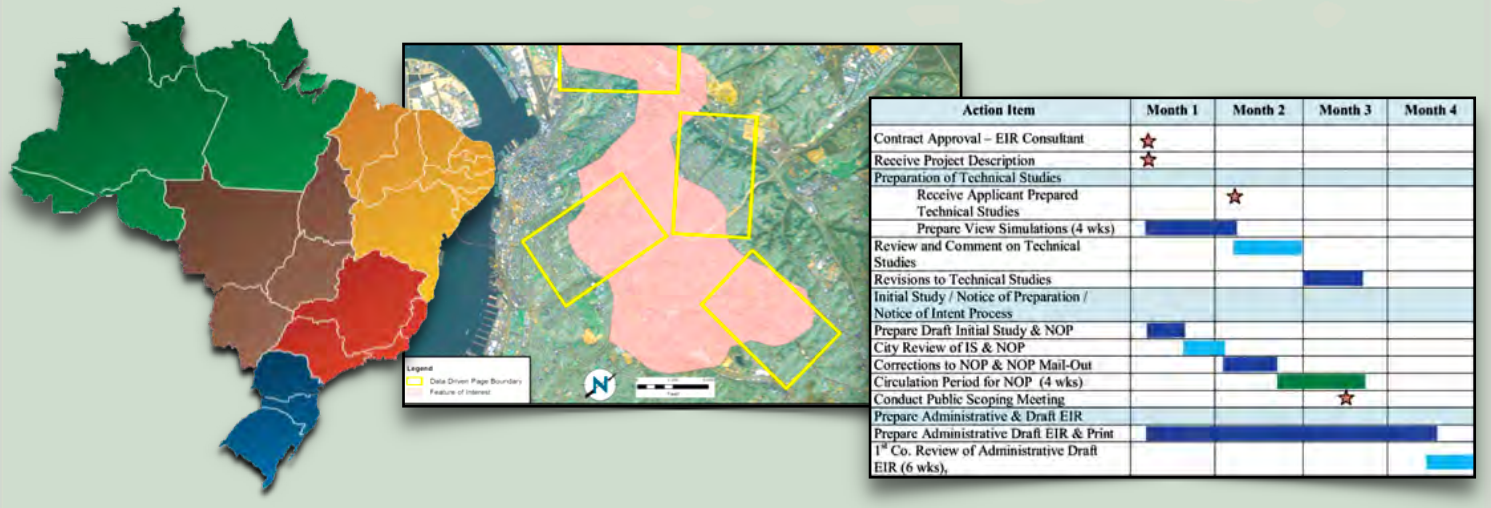
spring 2021 course announcement



GEOG 4503/5503

GIS: Project Management

Instructor: Sarah Kelly
sarah.kelly@colorado.edu

Have you taken Cartography or GIS and want to tackle a real project with real data? Are you looking to complete an Honor's or Master's thesis which has a mapping/GIS component? Maybe you're thinking about going out into industry or nonprofit work after you graduate, and want to have a better grasp on how to manage a project from the ground up? Then this class is for you!

You will gain confidence in project planning and scoping, obtaining data, creating a realistic timeline and budget, understanding team dynamics and how it impacts your project's success, evaluating project progress, and solving issues that will inevitably arise. The class offers an opportunity to work through a project from start to finish, with help and guidance on technical aspects, conceptual approaches, and on effectively communicating results.

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spring 2021 course announcement

GEOG 4563 / 5563

Earth Analytics

Dr. Leah Wasser
leah.wasser@colorado.edu

This multidisciplinary course will address major questions in Earth science and teach students to use the analytical tools necessary to undertake exploration of heterogeneous 'big scientific data.' This course is designed for upper level (junior / senior level) undergraduate students and graduate students.

Throughout the course you will use computationally intensive techniques to address scientific questions. You will use a suite of different types of publicly available data including:

- Satellite and airborne lidar and spectral remote sensing data.
- Data collected using distributed in situ (on the ground) sensor networks.
- Social media data.

This course is technical. You will use the `Python` scientific programming environment and the `Jupyter Notebook` interface to work with data. You will code every week!

This course is developed by Earth Lab. Earth Lab harmonizes the wave of Earth observations from aerospace platforms to address scientific challenges in understanding the pace and pattern of global change. See colorado.edu/earthlab

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spring 2021 course announcement

GEOG 4852/5852

Health and Medical Geography

Professor Colleen Reid
colleen.reid@colorado.edu

Why is your health defined by where you live? How can geographical statistical analyses help us understand the drivers of ill health and also plan interventions to promote health?

Health and Medical Geography focuses on geographical aspects of health and disease such as the importance of "place" and history, access to healthcare, social relationships, and the physical environment. In general, the most important disease systems are complex and require interdisciplinary perspectives. This course is designed to develop a foundation in understanding the multifactorial determinants of health and an understanding of the role of spatial analysis in epidemiology. In this course, through lectures and in-depth case studies, you will gain an understanding of the multifactorial determinants of health and how to understand how geography plays a role in determining the location and spread of health and illness throughout the world.

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GEOGRAPHY

spring 2021 course announcement

GEOG 5241

Topics in Physical Geography: Fluvial Geomorphology

Professor Katherine Lininger
katherine.lininger@colorado.edu

This graduate level course will cover aspects of fluvial geomorphology, which is the study of rivers and how they shape the landscape. In the course, we will link river channel forms with the processes that create those forms.

Topics covered include river hydraulics, sediment transport, drainage networks, channel forms and patterns, interactions between ecological and geomorphic processes in rivers, and some discussion of river restoration and management. The course will combine lectures, discussions, and field trips.

Students will gain a strong understanding of fluvial geomorphic processes, gain experience collecting and analyzing field data, and interpret and analyze literature on fluvial geomorphology.

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