

Subject	Nbr	Section	Class Title & Description – SPRING 2022	Days	Time Start	Time End	Instructor
GEOG	100	B	World Geography and Globalization	MWF	11:30 AM	12:20 PM	Lu, Max
			<p>The world is becoming more and more integrated, interconnected and interdependent. Our life is inevitably affected by events taking place in distant places such as the Mideast and China. It is therefore imperative to understand other cultures and peoples. World Geography & Globalization will introduce you to the world's major realms, regions, countries and places, including their physical environments, natural resources, culture, population, ethnicity, economy, and even political systems. It will help you understand what lies behind the changes and conflicts we are witnessing in the world daily. With the knowledge and insights you will gain from the course, you will look at what is taking place around the world and in our lives very differently and learn to untangle the many complicated world issues of today and tomorrow.</p>				
GEOG	100	D	World Geography and Globalization	TU/TH	1:05 PM	2:20 PM	Lu, Max
			<p>The world is becoming more and more integrated, interconnected and interdependent. Our life is inevitably affected by events taking place in distant places such as the Mideast and China. It is therefore imperative to understand other cultures and peoples. World Geography & Globalization will introduce you to the world's major realms, regions, countries and places, including their physical environments, natural resources, culture, population, ethnicity, economy, and even political systems. It will help you understand what lies behind the changes and conflicts we are witnessing in the world daily. With the knowledge and insights you will gain from the course, you will look at what is taking place around the world and in our lives very differently and learn to untangle the many complicated world issues of today and tomorrow.</p>				

GEOG	100	F	World Geography and Globalization	MWF	10:30 AM	11:20 AM	Smirnova, Vera
			World Geography & Globalization offers an introductory and yet broad exploration of the human geography of the world with a focus on the interconnected relations between its major societies and places. We will take a regional approach to globalization and will focus on different regions, countries, and nations and their environmental characteristics, cultural values, demographic policies, political systems, urbanization, and economic trends. As a result of this course, you will be able to not only learn more about the world's societies but also look at them from geographical and global perspectives.				
GEOG	121	B		MWF	11:30 AM	12:20 PM	Fischer, Amariah
			"Throughout this course, we will learn about Earth's physical geography from a systems perspective, focusing on the four realms of Earth and how those realms interactive with one another. We will learn about global climate patterns and local weather systems, how mountains are built and how rocks are formed, how rivers, glaciers, and wind turn mountains into soil, how biomes and ecosystems interact with biogeochemical cycles, and how climate change and human actions are altering our planet. This class is for any person living on this planet who wants to learn more about their surrounding environment, how it was made, how it persists, and how it may change in the future."				

GEOG	121	C	Introduction to Physical Geography: Earth Systems Sciences	MWF	10:30 AM	11:20 AM	Temme, Arnaud
			In this class, we will figure out how this awesome planet works! We will cover global climate patterns and local weather patterns, how mountains are built and how rivers, glaciers, and wind turn mountains into soil, how biomes and ecosystems interact with biogeochemical cycles, and how climate change and human actions are altering our planet. Nothing is more exciting – and you’ll be surprised by how much sense it all makes!				
GEOG	121	A	Introduction to Physical Geography: Earth Systems Sciences	TU/TH	9:30 AM	10:45 AM	Langston, Abigail
			We will introduce you to the science of Earth Systems, focusing on the four realms of Earth: the atmosphere, the hydrosphere, the lithosphere, and the biosphere. We will cover global climate patterns and local weather patterns, how mountains are built and how rivers, glaciers, and wind turn mountains into soil, how biomes and ecosystems interact with biogeochemical cycles, and how climate change and human actions are altering our planet.				
GEOG	200	A	Human Geography	MWF	10:30 AM	11:20 AM	Lima, Rebecca
			This course has many goals. First, it will provide you with a general introduction to human geography. Second, I want to lead you into the geographic way of thinking about concepts of society, places, space and related issues. We will study patterns and processes of human activity from a geographic perspective. In doing this, we will focus on population growth, culture and identity, urban growth, political geography, agriculture, development, environment and problems associated with these processes. The course will provide a critical toolkit for examining current global issues that impact our world today.				

GEOG	200	B	Human Geography	TU/TH	9:30 AM	10:45 AM	Paul, Bimal
			Using global approach, this course will introduce students to the topics of human geography, such as world's population and migration, cultures, religions, languages, and economic development and activities. It is designed to introduce the nature and intellectual challenges of the field of geography and the special position of human geography within it. This course will help students to prepare for higher level courses in geography and other relevant social science disciplines.				
GEOG	302	A	Cartography and Thematic Mapping	MW	11:30 AM	12:20 AM	Avocat, Helene
			From official documents to social media, maps are everywhere, and a good map is worth a thousand words! They are powerful tools to describe phenomena that take place on our territories, and cover a vast amount of topics (environment, health, economy, demography and so on). But have you ever wondered how maps were made or questioned the reliability of maps that you see in your everyday life? In this class you will learn how to manipulate data and use GIS (Geographic Information System) software to create your own maps, with respect to the cartographic design standards.				

GEOG	310	A	Geography of Kansas	MWF	1:30 PM	2:20 PM	Martin, Chuck
			<p>Curious about Kansas? Why is it so bitterly cold in the winter and so blazing hot in the summer? How come western Kansas is so flat, but eastern Kansas is rather hilly? Why is it smoky in the Manhattan area for several weeks each spring? What was the role of Kansas in the fight over slavery in pre-Civil War America? What brought various ethnic groups to the state and what sign of their presence is visible still today? This course explores these questions and more as we examine the physical and human environment of Kansas, explore the long and rich historical geography of the central Great Plains, and consider the challenges and prospects that the state faces today in areas such as population geography, water resources, health geography, and more. A must for anyone, native Kansan or not, who wants to learn about the “Sunflower State’s” unique and fascinating geography.</p>				
GEOG	360	A	Sustainability Concepts and Issues	TU/TH	1:05 PM	2:20 PM	Nelson, Kate
			<p>What is sustainability really about anyway? We’ll dive into the ideas behind sustainability and examine real-world issues from a sustainability science perspective. Whether you’re a sustainability activist or just curious what all the fuss is about this class has something for you. From coffee to culture and climate change to crops we’ll explore the environmental, economic, and social dimensions of pressing issues in today’s world and strategies for achieving sustainability goals.</p>				

GEOG	370	A	Environmental Justice	MWF	11:30 AM	12:20 PM	Caldas, Marcellus
			<p>Across the world, people are protesting against environmental threats. Wildfires, air pollution, degradation of forest resources, loss of biodiversity, climate change, lack of clean water, among others. Environmental issues are high on society's agenda. However, to help meet societal demands we need to understand how environmental phenomena affects different social groups and how society organizes/mobilizes to fight for equality in resource use. The course introduces students to the history of the environmental justice movement and concepts such as globalization, resources exploitation, justice, race, class, and governance. In doing this, the course will expose students to different geographies of environmental (in) justices that are present in the world. This course will offer K-State students the opportunity to learn how to understand, evaluate, and engage in environmental justice conflicts and debates. This course explores the concept of environmental quality and social (in) justice with a three-fold objectives: 1) understanding the theories and methods to evaluate environmental justice, 2) understanding how society and different groups are affected by environmental issues, and 3) enhancing critical thinking on environmental issues.</p>				

GEOG	460	A	Human Dimensions of Global Change	TU	9:30 AM	10:45 AM	Sanderson, Matthew
			<p>Where are we? How did we get here? Where are we going? Why? This course investigates answers to these four questions. As material beings, humans are dependent on the environment; we must transform the environment to survive. Over time, we have scaled up our interactions: our economies, political institutions, social relations, and technologies have grown larger, extending across wider spans of time and space, incorporating more places. Now, as a species, we leave our imprint <i>everywhere</i>: in the atmosphere, the lithosphere, the hydrosphere, and the biosphere. In the Anthropocene – the age of humans – we confront unprecedented human-environmental challenges arising from our effort to grow, to scale up, to develop our societies: climate change, species extinction, soil loss, and water pollution, among others. How will we – <i>homo sapiens</i>, the “wise” ones – be able to find our way out of the Anthropocene, the age we created? Join us as we explore, together, for a time.</p>				
GEOG	490	B	Problems in Geography/Population and Health Geography	TU	1:05 PM	2:20 PM	Paul, Bimal
			<p>Employing a global perspective, this course aims at covering topics common to both population and health geography. One such broad topic is age, gender, disease-specific mortality, which is taught not only in both sub-disciplines of geography, it is also taught in such cognate fields as anthropology, demography, epidemiology, economics, history, population studies, public health, and sociology. More specifically, this course will cover such topics as fertility (e.g., population dynamics and processes, population distribution and structure, and population debates and policies), mortality (e.g., infant, child, maternal, and cancer), morbidity (e.g., COVID-19, avian influenza, HIV/AIDS, and chronic diseases), and access to health care systems.</p>				

GEOG	508	A	Geographic Information Systems 1	TU/TH	9:30 AM	10:45 AM	Avocat, Helene
			<p>This course will introduce you the exciting and rapidly developing field of Geographic Information Systems (GIS). Through a combination of both lectures and lab exercises, you will be exposed to geospatial concepts and terminology, techniques of spatial data acquisition, visualization and analysis, and hands-on operations using standard GIS software packages. This course is also one of the required major courses for the K-State GIS Certificate Program and our new B.S. degree program in Geographic Information Science & Technology.</p>				
GEOG	535	A	Global Climatology and Climate Change	MWF	9:30 AM	10:20 AM	Goodin, Douglas
			<p>Human-induced climate change is among the most pressing problems facing our society today. Understanding how the earth's climate system works, why it is changing, and how we know the causes of this change is the subject of this course. You will learn the fundamental physical processes that control climate, and how these processes control the distribution of climates across the globe. You will also learn how human activities, and to a lesser extent, natural processes, are changing the earth's climate, and what these changes might mean for climate in the not-too-distant future. The course combines lectures and lab activities, in which you will have the opportunity hands-on analysis of climate using observations, existing data sets, and models.</p>				

GEOG	600	A	Mountain Geography	TU/TH	2:30 PM	3:45 PM	Joslin, Audrey
			<p>Fascinated with mountain landscapes? You're not alone! Mountains are among the most culturally and ecologically diverse landscapes on Earth. They are valued for their resources, admired for their aesthetic qualities, and revered for their sacredness. They are also dynamic environments that provide significant challenges to sustainable development. This course explores the diversity of mountain environments, the geocological processes that shape them, and the role that people play in using, transforming, and conserving them. This course contributes towards K-state Primary Text Certificate credit and as a Natural Resources and Environmental Science Secondary Major elective. K-State 8 tags include Social Science & Natural and Physical Science.</p>				
GEOG	608	A	Geographic Information Systems II	TU/TH	1:05 PM	3:20 PM	Hutchinson, Shawn
			<p>GIS has become an indispensable part of the toolkit for researchers and practitioners who want to describe, explain, and predict patterns and processes on the Earth's surface. If you have already taken an introductory GIS class and are ready to advance your geoprocessing abilities, then GEOG 608 is for you! This intermediate-level GIS course introduces geodatabases and geodatabase design, provides context for and practice using spatial analysis methods, and emphasizes the design of GIS models to automate and share geoprocessing workflows as a precursor to script-based solutions.</p>				

GEOG	660	A	Geography of East Asia/China	TU/TH	9:30 AM	10:45 AM	Lu, Max
			East Asia is a land of ancient cultures, fascinating peoples, and overwhelming natural beauty. It is also home to the world's 2 nd and 3 rd largest economies (China and Japan). The significant cultural, economic, and political changes there will affect our lives directly or indirectly. This course will introduce you to this important region of the world and provide you with an understanding of the forces that are reshaping its cultural, economic and political landscapes. The key topics we will discuss include East Asia's natural resource base and environmental challenges, ancient civilizations and pop culture (e.g, anime, k-pop), Japan's modernization and socioeconomic patterns, China's rapid rise in the last four decades, the economic success stories of South Korea, Taiwan and Hong Kong, as well as the region's geopolitical situation especially the consequential and ever more complicated U.S.-China relations.				
GEOG	706	A	Biophysical Remote Sensing	MWF	11:30 AM	12:20 PM	Goodin, Douglas
			For the past five decades, earth and life scientists have been using satellites, aircraft, and other platforms to observe and collect quantitative information about the earth's surface. In our current era of widespread climate change, such sources of information have become invaluable, and the skills and knowledge necessary to convert observations into usable information is an increasingly important component of the 'toolkit' of the earth sciences. Geog 706 is a course where you will learn how to analyze multi- and hyperspectral remote sensing data to extract quantitative information from the visible, near infrared, and thermal infrared regions of the spectrum, and how to use such information to estimate surface properties such as temperature, leaf area, biomass, evapotranspiration, leaf pigment content, and others, at spatial extents ranging from a few square meters up to continental scale. The course consists of lecture plus hands-on exercises that allow students to gain experience with biophysical remote sensing using a variety of data sets coupled with empirical, modeling, and machine learning approaches to analysis.				

GEOG	712	A	Internet GIS and Distributed Geographic Information Services	WF	12:30 PM	2:20 PM	Hutchinson, Shawn
			The Internet is increasingly being used as the means to deliver maps, geographic data, and spatial data processing services to end users. This course builds upon senior undergraduate and graduate level prerequisites such as GEOG 508 GIS I and GEOG 608 GIS II and exposes students to client-server computing from a GIScience perspective, enterprise-level geodatabases, and provides the opportunity to practice techniques required to author and serve Internet-based map products and web-based geographic services.				
GEOG	728	A	Programming for Geographic Analysis – R	TU/TH	9:30 AM	10:45 AM	Nelson, Kate
			Want to develop highly marketable technical skills in programming and spatial data analysis? Then this course is for you. Students will learn data carpentry and spatial data wrangling, data visualization and mapping, and spatial analysis and modeling using the open software R. In addition to learning technical skills you will learn how to conduct reproducible research and develop soft skills in problem-solving and trouble-shooting.				

GEOG	740	A	Fluvial Geomorphology	TU/TH	2:30 PM	3:45 PM	Langston, Abigail
			<p>Rivers shape the surface of the earth by eroding mighty mountain ranges, conveying sediment across continents, and building broad floodplains and deltas. River erosion and deposition are controlled by the erosive power of the water flowing in the river and the resisting strength of the sediment or rock it flows over. The class begins with understanding the fundamentals of fluid flow mechanics in a stream, followed by the physical principles of sediment transport in moving water. We will then build upon these two fundamental concepts and observe fluvial environments, identify the dominant processes at work, and hypothesize how river form and function change in response external forcing, like climate change and anthropogenic influences. This class includes two Saturday field trips to collect field data from local streams that we will analyze in class.</p>				