

San José State University
Department of Geography and Global Studies
GEOG 121 / ENVS 121, Population and Global Change, Section 80, Spring 2018

Course and Contact Information

Instructor:	Gary Pereira
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Office Hours:	Please call the number above regarding any issues that cannot be resolved by email, between the hours of 3 PM and 5 PM any Monday or Wednesday.
Class Days/Time:	online

Course Format

This is an online course. Internet connectivity and a computer are required.

Course materials can be found on Canvas Learning Management System course login website at <http://sjsu.instructure.com>, under **Files**. Assignments are all listed and described under **Assignments**.

Course Description

The purpose of this course is to examine, analyze and comprehend connections between human demographics and human well-being and how they influence and are influenced by physical and social conditions and changes that are taking place on this planet.

Course Learning Outcomes (CLO) (Required)

Upon successful completion of this course, students will be able to:

1. describe the transitional processes and characteristics of human populations in the modern world, and be capable of intelligently project this understanding into future scenarios;
2. understand and describe the physical, biological, ecological, personal, social, and cultural practices that shed light on the relationship between human populations and those biospheric domains upon which we depend.

Required Texts/Readings

Textbook

There is no textbook for this course.

Other Readings

Approximately thirty carefully chosen documents are provided on Canvas, under FILES. Please read each document in the order indicated in the Course Schedule below by the assigned date.

Other technology requirements / equipment / material

A computer with internet connection is required for this course.

Course Requirements and Assignments

Please submit your homework responses as Word or pdf files. Use 10 or 12 point font (or both), with 1 ½ line spacing and normal margins. Please include the following information at the upper right of the first page of each homework submission:

Your name

Geog/Envs121-02

Spring 2018

Homework assignment number

Figures, images, and quotations from the references listed here or from other sources may be embedded in your homework responses, but you must provide attribution. Citations should be explicit and complete.

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week) for preparation/studying or course related activities.

Final Examination or Evaluation

Grading Information

Homework: Fourteen homework assignments must be completed on or before the due dates, as described in the Course Schedule below. Please submit these responses via Canvas. If Canvas is not working for an extended period of time, you may alternatively submit to my email address gary.pereira@sjsu.edu as Word or pdf files attached to a message. Please use either 'geog121' or 'envs121' (without quotes) as the full subject line of any emails. You may include any additional comments and questions within the body of the message if you want to; otherwise you may leave it empty. If you have submitted successfully via Canvas, there is no need to email me.

For each homework assignment, use either 10 or 12 point font, or both, with 1 ½ line spacing. Put your name, the homework number, 'Pereira', 'geog121-80' or 'envs121-80', and 'Spring 2018', arranged at the upper right of the first page. Text, figures, and images lifted from documents or screenshots may be embedded in your homework, but these must all include full attribution. In other words, be honest about which words, figures and images are your and which are from other sources. It is often helpful to include this sort of material, but these should be explicitly cited. I don't care which format you decide to use to do that. Write at least some of these responses in such a way that you will be able to build and revise it for future use. That is why it may be helpful to embed figures and citations explicitly.

Near the end of the semester, you will choose one of your homework responses and expand it into a well-written term paper. This will be your final exam. You should by now have developed the skills required to reason logically and write well. That is what you are being judged on here. You will be required to provide at least three citations.

Determination of Grades

14 Homework assignments (6% each)	84%
Final Exam	16%
Total	100%

Habitual lateness may result in a full grade change at the instructor's discretion. Students submitting work late (a full day or more after the due date) are expected to address this in the body of the email, without being asked.

98% and above	A+
94% - 97%	A
93% - 90%	A-
89% - 87%	B+
86% - 84%	B
83% - 80%	B-
79% - 77%	C+
76% - 74%	C
73% - 70%	C-
69% - 67%	D+
66% - 64%	D
63% - 60%	D-
below 60%	F

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

Note that "All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades." See University Policy F13-1 at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

Geog121-02 / EnvS121-02: Population and Global Change Spring 2018

As a reminder, please submit your homework responses as attached Word or pdf files by the due date indicated. Use 10 point font, with 1 ½ line spacing and normal margins. Put at upper right on the first page of each submission your name, the homework number, Pereira, geog/envs121-02, Spring 2018.

Figures, images, and quotations from the references listed here or from other sources may be embedded in your response, but you must provide attribution. Citations should be explicit and complete.

Course Schedule

Week	Due Date	Topics, Viewings, Readings, Assignments
1	2/5/2018	<p>Topic: Demographics</p> <p>In order to gain a better understanding of ideas, we often connect them to the impressions we receive through our senses. ‘Human demographics’ is one of those topics that are simultaneously abstract and concrete, broad and personal. As counterpoint to your readings, which may tend to be dry (and very instructive), I will ask you to consider visual or audio material on your own. I will often ask you to comment on this material. You will do this individually, as part of your homework.</p> <p>I have recently begun filming some of my travels, including long ambient scenes that people might find boring. Nevertheless, I would like you to view the following 4 minute film, provide without commentary, of a short stretch of the northern shore of the Yangtze river somewhere between the Three Gorges and the city of Chongqing. Although most of the river remains unpopulated, at this moment we happen to be passing by a city. It is early in the morning. Behind those windows are people just waking up, having breakfast, and going off to work and school. You may comment on this film in this week’s homework submission if you like, but you are not required to do so. I provide it here because it might help set the stage for the claim that human societies, no matter how large or dense, are all comprised of uniquely individualized human beings, each of whose lives are as important to each of them as mine is to me and yours is to you.</p> <p>View: ‘Humanity’ https://www.youtube.com/watch?v=IeT2AObKkJM&index=5&list=PLBtvag1nixHvhelsCE2H5CysESGyTkqZu</p> <p>Read: (Oeppen) broken limits to life expectancy (Cohen) human population – the next half century (Lee) the outlook for population growth.</p> <p>Homework1: Please refer to the graph on the third page of the Cohen article. Describe the components of the ‘population pyramid’. What sorts of things do these graphs tell us about gender, age groups, and the human experience in North Africa and West Asia on the one hand, and the European Union on the other? How might these graphs change over time, in terms of age groups? Two pages of text minimum.</p>
2	2/12/2018	<p>Topic: Demographics</p> <p>View: Current World Population http://www.worldometers.info/world-population/</p> <p>Countries in the world by population (2017) http://www.worldometers.info/world-population/population-by-country/</p>

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		<p>Read: (Bloom) 7 billion and counting (McMichael) longer lives and lower birth rates</p> <p>Homework2: Approximately how many people are alive today? What are the five most populous countries? Describe in detail the “demographic transition”. What are the historical, climatic, medical and technological forces that might influence its development? How might it be different for different countries or regions? You may embed graphs from other sources within your document, but refer to these sources and describe accurately what the graphs represent. Three pages of text minimum.</p>
3	2/19/2018	<p>Topic: Demographics</p> <p>Read: (Bongaarts) population policy in transition in the developing world</p> <p>Homework3: Tell me why the author is so supportive of increased attention to family planning in the developing world. Has this received the attention it deserves? Two pages of text minimum.</p>
4	2/26/2018	<p>Topic: Migration</p> <p>Read: (Abel) quantifying global international migration flows.</p> <p>Homework4: Referring to the last chart of Abel’s paper (Figure 4), describe in words (while referring to the corresponding colors) all of the major pathways of migration, and some of the minor pathways you find interesting. This article was published in 2014. How might the chart have changed in response to more recent events? Two pages of text minimum.</p>
5	3/5/2018	<p>Topic: Migration</p> <p>View: The European Refugee Crisis and Syria Explained https://www.youtube.com/watch?v=RvOnXh3NN9w</p> <p>Read: your choice of two or three respectable news sources.</p> <p>Homework5: The numbers of political and environmental refugees in the world today are higher than ever before. Some of the more significant current sources include Syria, Libya, and Eritrea. Please do a reasonably detailed study of one of these groups. Describe the political and environmental conditions that cause people to flee. What are some of the human experiences? What are the legitimate concerns of nations through which refugees travel and within which they hope to settle? What is the significance of geography? Three pages of text minimum.</p>
6	3/12/2018	<p>Topic: Urbanization</p> <p>View: Harnessing Urbanization for Growth and Poverty Alleviation https://www.youtube.com/watch?v=nTAIOxqKYNo</p> <p>Read: (Montgomery) the urban transformation of the developing world, (Dye) health and urban living</p>

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		<p>Homework6: Montgomery outlines the rapid transition from rural to urban life that is now occurring throughout the world. The video from the World Bank indicates that urbanization is tied directly to poverty alleviation. Dye however point out that urban life may actually widen the gap in quality of life between the rich and the poor, and it places a greater responsibility and new challenges to governance. Urbanization is also related to changes in agriculture, which we shall get to later. What is your initial impression of this rapid, massive urbanization? What are its advantages and disadvantages? Two pages of text minimum.</p>
7	3/19/2018	<p>Topic: Development</p> <p>View: http://www.nightearth.com/</p> <p>Read: (UN) Millennium Development Goals Report 2015</p> <p>Homework7: Anthropogenic sources of light on the Earth's surface are often used to gauge a society's degree of development. Do you think the connection between artificial lighting and development is valid? Find examples from earthnight.com results to bolster your argument. Look for example at the differences between North and South Korea, and between other developed and developing countries. Also, list and describe the eight Millennium Development Goals. Two pages of text minimum.</p>
8	4/2/2018	<p>Topic: Development</p> <p>View: Megacities Reflect Growing Urbanization Trend https://www.youtube.com/watch?v=eFboV2m1yuw</p> <p>Homework8: Dhaka, Bangladesh - the capital of the most densely populated major country in the world - is also the planet's fastest growing city. Megacities are growing throughout the developing world. What are some of the advantages and drawbacks to allowing cities to grow to such enormous sizes? Three pages of text minimum.</p>
9		<p>Spring Recess</p>
10	4/9/2018	<p>Topic: Biospheric change</p> <p>Read: (Liu) complexity of coupled human and natural systems (Barnosky) approaching a state shift in earths biosphere (McMichael) global environmental change</p> <p>Homework9: Explain the importance of nonlinearities, thresholds, and surprises in the relationship of humanity with the Earth's natural systems. What are some of the challenges we face in trying to avoid unpleasant surprises? Do you think that scientific understanding and human governance are up to the task? Do you think that popular understanding of these issues in this country matches their known realities? Two pages of text minimum.</p>
11	4/16/2018	<p>Topic: Food and agriculture</p> <p>View: The Future of Agriculture https://www.youtube.com/watch?v=uAM4Si_WhDk</p> <p>Read: (UNEP) Agriculture- investing in natural capital (Mooney) confronting the human dilemma</p>

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		<p>Homework10: A box within the article by Mooney describes the choice between crop intensification on less acreage, versus “expanding cultivated area in lower-yielding systems using farming practices that preserve environmental services at the field and local levels.” The UNEP report makes a detailed case for “greening agriculture” in Chapter 3, beginning on page 50. Given the demographic trends that we studied earlier in the semester, what do you think of Mooney’s analysis? Is it realistic? Is it simplistic? Is it really necessary to continue to ‘intensify’ agriculture artificially by chemical and industrial means in order to continue to feed the world? Would a move toward more ‘organic’ and sustainable agricultural practices necessarily involve shortages, higher prices, or an expansion of farmland? Do you have any experience with such practices? Three pages of text minimum.</p>
12	4/23/2018	<p>Topic: Food and agriculture</p> <p>Read: (CGIAR) Climate, agriculture and food security - a strategy for change (UN) Food and agriculture- the future of sustainability (Howden) adapting agriculture to climate change (Giles) how to survive in a warming world</p> <p>Homework11: Continuing on last week’s theme, this week’s references concentrate on agricultural decision making, particularly in the face of rapid climate change. Howden discusses formal management strategies, while Giles asks us to look more closely at local and community cooperative decisions that are already being made in some of our most vulnerable regions. These are examples of a much larger discussion that is taking place regarding how we human beings feed ourselves, including topics in nutrition, soil science, the ecological sciences, etc. Several excellent documentaries have been released in recent years. Agricultural practices may contribute nearly a third of all greenhouse gas emissions. Under different practices, could actually remove carbon from the atmosphere. Sustainable agriculture practices and the composting of food and agricultural waste could help to capture and sequester carbon and other nutrients in the soil and naturally increase its productivity. This has been known for thousands of years. Unfortunately, we cannot dwell on this topic. I would only ask you to write a short essay here on a topic of your choice that reflects the extent to which you understand the importance of food and agriculture. Two pages of text minimum.</p>
13	4/30/2018	<p>Topic: Consumption</p> <p>Read: (Meyers) new consumers- the influence of affluence on the environment (Turner) to the rich man the spoils</p> <p>Homework12: Meyers outlines the growth in consumption by a billion or more new consumers in places like China and India; the increasing use of cars in particular contributing significantly to carbon emissions. Turner points out that, for the world as a whole, the disparity between the rich and poor is increasing. Do you believe that the rise of ‘consumer goods’ like very large screen TVs and high-powered vehicles for personal use is a reflection of changing social norms and falling prices? Can 7 billion people live this way? Can technology overcome? Two pages of text minimum.</p>
14	5/7/2018	<p>Topic: Resource use</p> <p>Read: (Hoekstra) humanity’s unsustainable environmental footprint (Vorosmarty) global threats to human water security and river biodiversity</p> <p>Homework13: Why does Hoekstra stress the importance of determining humanity’s environmental footprint across the entire supply chain in terms of resources like water, by both producers and consumers of goods? Do you think that “major transformations to the world economy” are required in order to</p>

Week	Due Date	Topics, Viewings, Readings, Assignments
		establish sustainable practices in the use of resources like fresh water? Why or why not? 2 pages of text minimum.
15	5/14/2018	<p>Topic: Land use</p> <p>Read: (Lambin) global land use change, economic globalization, and the looming land scarcity (Foley) global consequences of land use</p> <p>Homework14: Lamblin claims that “Globalization can be harnessed to increase land use efficiency rather than leading to uncontrolled land use expansion”. How does he propose this occur? Foley details differences between natural ecosystems, intensive cropland, and cropland with restored ecosystem services. Tie together what you’re learning about this last category, economic globalization, land use, and sustainability. 2 pages minimum</p>
16	5/22/2018	<p>Topic: Final Exam</p> <p>Choose one of your homework responses and expand it into a well-written discussion. This paper will serve as your final exam. By this point in your college career, you should by now have developed the skills required to reason logically and write well. That is what you are being judged on here. Provide at least three citations, including one that you have found yourself. I am giving you free reign, so choose a topic about which you are interested in educating yourself further. The resulting paper should be at least four pages long, easily more. No upper limit.</p>