

San José State University
Department of Geography and Global Studies
Geog121 / EnvS121: Population and Global Change, Fall 2015

Course and Contact Information

Instructor: Gary M. Pereira

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Office Hours: Tue 9:00 – 10:00 AM; Thurs 3:00 – 4:15 and 9:15 – 10:00 PM

Class Days/Time: Tuesday / Thursday 10:30 – 11:45 AM

Classroom: Clark 224

Course Description

The purpose of this course is to examine, analyze and comprehend connections between human populations at all scales and influential or influenced global, regional and local changes that are themselves taking place at all scales within the total human environment, termed here the 'anthroposphere'. Readings, discussions, and films are the means of achieving this purpose.

Each week may represent a different theme, although some themes may extend for more than one week. These themes are as follows:

An overview of global demographics (**World population**).

A discussion of possible near future scenarios (**'Moving forward' to what?**)

An examination of embedded realities (**The anthroposphere**)

The transition to urban life (**Urbanization and development**)

Changing patterns of migration (**Demographics and migration**)

Additional discussion of demographic patterns (**Demographics**)

The critical importance of agriculture (**Food and agriculture**)

The detrimental effects of rising consumption (**Consumption and biospheric change**)

Human practices and biospheric change (**Socio-biospheric change**)

Three weeks on adaption and coevolution involving different facets of anthropospheric and biospheric change (**Adapting to biospheric change**).

How might success and health (as opposed to failure and disease) be recognized, promoted, and implemented at all anthropospheric scales? (**Resilience**).

Learning Outcomes and Course Goals

Each week, as we discuss the topics indicated above, you will need to take notes. We will use the screen to project each listed document, and discussions are supplemented with films, maps, graphs, images, etc. In addition to taking notes, you may be asked to provide a one-page response to a question posed by the instructor, which is handed in at the end of the class period. In order to achieve the learning outcomes and fulfill course goals, therefore, you should attend class as often as possible and take notes.

The goal is simple: to achieve an accurate professional understanding of the current state of global human populations and their relationships to the Earth, by examining recent publications on these topics in journals like *Science*, *Nature*, the *Proceedings of the National Academy of Sciences (US)*, and others. These are all well-vetted, and many of them are surveys of the current state of understanding. Together they provide a comprehensive rich and diverse set of source material that no textbook could duplicate.

Learning is measured in terms of how well you reflect comprehension of the ideas present in this material, not in terms of what you've memorized. You will always have access to your notes. Written responses compiled over the course of a class period can often reflect more than the oral discussion. However, your participation in this oral discussion is likely to improve your written responses, as well as those of others. Participation in discussion is therefore well-rewarded and can improve your final grade.

Course Learning Outcomes (CLO)

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, and whose future health depends on us (the Anthroposphere).

Readings

Approximately fifty readings are provided on Canvas, under FILES. These readings will be discussed in class as listed in the schedule below. They should be examined **before** the start of the class period to which they correspond. Along with the discussion, they form the basis of comprehension required for your in-class written responses described below.

Assignments and Grading Policy

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>.

Approximately once per week you shall be asked to write your thoughts on a question of the day. Your best twelve in-class written responses to questions related to each week's readings shall total 50% of the grade. A formal term paper on a relevant topic of your choice is due at the end of the semester. It must contain at least four pages of text. Normal margins, 10 or 12 pt. font, 1 ½ line spacing. Must contain and refer to a sufficiently comprehensive list of references. An oral presentation on the topic is required of graduate students, and is optional for undergraduate students. Any questions regarding topic, early drafts, etc. can be discussed at any point during the semester. A final exam comprised of a single written essay on a topic previously decided on as a class rounds out the semester at accounts for the final 10% of the grade.

In-class responses	50%
Term paper	40%
Final exam	10%
Total	100%

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

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.

Classroom Protocol

Students are required to take notes and participate in discussion, so regular attendance is crucial. Technologies for taking notes are allowed. Small devices like cell phones and mp3 players are discouraged.

University Policies

General Expectations, Rights and Responsibilities of the Student

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU’s policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arise. See University Policy S90–5 at <http://www.sjsu.edu/senate/docs/S90-5.pdf>. More detailed information on a variety of related topics is available in the SJSU catalog, at <http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html>. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information on add/drops are available at <http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-324.html>. Information about late drop is available at <http://www.sjsu.edu/sac/advising/latedrops/policy/>. Students should be aware of the current deadlines and penalties for adding and dropping classes. Information about the latest changes and news is available at the Advising Hub at <http://www.sjsu.edu/advising/>.

Consent for Recording of Class and Public Sharing of Instructor Material

University Policy S12-7, <http://www.sjsu.edu/senate/docs/S12-7.pdf>, requires students to obtain instructor's permission to record the course and the following items to be included in the syllabus:

"Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material."

In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.

"Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent."

Academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy S07-2 at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at <http://www.sjsu.edu/studentconduct/>.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at <http://www.sjsu.edu/aec> to establish a record of their disability.

Geog 121 Fall 2015 Course Schedule

Please note that the course calendar is subject to change with fair notice.

Week	Date	Topics. Readings.
1	8/20	Introduction. Film: Humanity from Space.
2	8/25 8/27	World population. (Bloom) 7 billion and counting. (Lee) the outlook for population growth. (McMichael) Human Frontiers, Environments and Disease (HFED), chapter 7: longer lives and lower birth rates
3	9/01 9/03	'Moving forward' to what? (McMichael) HFED chapter 7. (Barnosky) approaching a state shift in Earth's biosphere. (Berkhout) anthropocene futures. (Oeppen) broken limits to life expectancy.
4	9/08 9/10	The anthroposphere. (Stephenson) pop., development climate change and human health. (Liu) complexity of coupled human and natural systems. (Hoekstra) humanity's unsustainable environmental footprint.
5	9/15 9/17	Urbanization and development. (Mace) reproducing in cities. (Montgomery) the urban transformation of the developing world. (Grimm) global change and the ecology of cities. (Dye) health and urban living. (Myrskylä) advances in development reverse fertility declines.
6	9/22 9/24	Demographics and migration. (McMichael) HFED chapter 7. (Cohen) human population – the next half century. (Abel) quantifying global international migration flows. (Aide) globalization migration and latin american ecosystems.
7	9/29 10/01	Demographics. (Bongaarts) population policy in transition in the developing world. (Gerland) world population stabilization unlikely this century. (Harper) economic and social implications of aging societies.
8	10/06 10/08	Food and agriculture. (Gignoux) rapid demographic expansions after the origins of agriculture. (UN) Food and agriculture – the future of sustainability. (Rudel) agricultural intensification and areal changes 1970-2005.
9	10/13 10/15	Food and agriculture. (CGIAR) climate, agriculture and food security – a strategy for change. (Howden) adapting agriculture to climate change. (Tilman) global food demand and the sustainable intensification of agriculture.
10	10/20 10/22	Consumption and biospheric change. (McMichael) HFED chapter 10: global environmental change: overstepping limits. (Meyers) new consumers – the influence of affluence. (Turner) to the rich man the spoils.

Week	Date	Topics. Readings.
11	10/27 10/29	Socio-biospheric change. (McMichael) HFED chapter 10. (Foley) global consequences of land use. (Otto) socio-economic data for global environmental change research.
12	11/03 11/05	Adapting to biospheric change. (McMichael) HFED chapter 10. (Giles) how to survive in a warming world. (Mooney) confronting the human dilemma.
13	11/10 11/12	Adapting to biospheric change. (McMichael) HFED chapter 10. (Marris) planting the forest of the future. (Inman) Bangladesh is preparing for the hazards of a warmer world. (Haddeland) global water resources affected by human interventions and climate change.
14	11/17 11/19	(Adapting to biospheric change. (Dawson) reengineering cities. (Depietri) heat waves and floods in urban areas – a review of ecosystem services. (Gunalp) changing global patterns of urban exposure to flood and drought hazards. (Vorosmarty) global threats to human water security and river biodiversity.
15	11/24 11/26	Virunga (film). Thanksgiving – no class
16	12/01 12/03	Resilience. (Butzer) collapse, environment and society. (McMichael) HFED chapter 12: footprints to the future: treading less heavily.
17	12/08	Wrap-up. Term paper final submission
Exam	Wed 12/16	9:45 – 12:00