GGR 101H1S
Ancient Civilizations and their Environments

A. INSTRUCTOR INFORMATION:

Instructor: **Carlos Avendano**
Office Location: **SS 5060**
Office hour(s): **Thursday 12:00-2:00pm**
Contact details: 2020ggr101@gmail.com (official course email) **Primary Contact**
carlos.avendano@utoronto.ca (Instructor email)

B. COURSE INFORMATION:

Location: **PB B150**
Time: **Thursday 10am - 12pm**
Distribution Requirement Status: **This is a Science course**
Breadth Requirement: **Living Things and Their Environment (4)**

C. COURSE DESCRIPTION:

This course focuses on historical examples of how earliest societies interacted and adapted to changing climatic and environmental scenarios. The timing and tempo of climatic change are often credited with the dramatic cultural changes seen with the onset of the current Interglacial, the geological epoch known as the Holocene. During the current Interglacial, is when multiple critical events occur, such as the origins of agriculture, the rise of world civilizations, and the formation of the world as we know it. This course will focus on the processes that drive environmental change and how past societies have responded to the constraints that these could impose. The emphasis is on the current interglacial, the Holocene, and how increasing population, consumption levels and technology have affected human-environment interactions.

D. COURSE OBJECTIVES:

By the end of this course, students will be able to:

1. Summarize a general understanding of the history of climatic change on our planet, with particular emphasis on the past 12,000 years.
2. Articulate a general understanding of the various methods researchers use to reconstruct environmental conditions in the past.
3. Describe the research program of Historical Ecology.

E. COURSE EVALUATION:

Students will submit the following assignments for evaluation:

1. Exams: **55%**
   - a. Mid-Term Exam — 20% — **February 13th, 2020**
   - b. Final Exam (not cumulative) — 35% — Scheduled by Registrar
2. Assignments: **45%**
   - a. Outline and Bibliography — 15% — Due: **February 6th, 2020**
   - c. Final Paper — 30% — Due: **March 19th, 2020**

1. Exams: The mid-term will be in class and cover the first five weeks of lectures. The Registrar will schedule the final during the Spring 2020 Exam period. The Final Exam is NOT cumulative. For students who miss the regularly scheduled mid-term on February 13th, 2020, the instructor must be notified within 48 hours and complete the University of Toronto Medical Certificate paperwork within a week before any special consideration (such as a deferred midterm) will be considered.

2. Assignments: Students will choose from a list of topics their focal theme. An Outline and Annotated Bibliography will be handed in previously to the completion of their Final Paper. Detailed instructions will be posted in Quercus, and related information will be provided during lectures. The three assignments will be handed in through Quercus by the end of the day (11:59 pm) of the due date.

About the Assignments

a) **Plagiarism and Writing***:* Students must familiarize themselves with the University policy concerning Plagiarism and Academic Honesty. More information is available at http://advice.writing.utoronto.ca/using-sources/how-not-to-plagiarize. Penalties for plagiarism are severe. To learn more about on academic writing consult: https://writing.utoronto.ca/writing-centres/ and https://www.artsci.utoronto.ca/current/academic-advising-and-support/english-language-learning.

b) **Lateness**: Late assignments will be accepted up to **one week late but at a penalty of 5% a day.** Valid reasons for late submission will require proper original (i.e., physical or hard copy) documentation (i.e., medical note, police report) according to University regulations. Students with approved accommodations (i.e., Letter from Accommodations' Office) will receive a one week extension past the original due date. Please submit letters to the instructor by the third lecture (January 23, 2020).

c) **Grading:** Graded work will be returned within two weeks after the submission date. Challenge to assignment grade must be accompanied within three calendar days of the official release with a detailed written statement. Re-grading will be carried out at the sole discretion of the instructor.

d) **Email policy and communication**: Email communication will happen during regular "business hours" (9am to 5pm Monday to Friday) from the official course email address (see above). Only University of Toronto email addresses will be acknowledged. Please allow 24-48 hours for a response. Please include the **course code** (e.g., GGR101) as part of your subject line, and include your **full name** and **student number** in the body of the e-mail. Please read the course handouts and check the course online site before e-mailing a question, to make sure that it has not already been answered. Questions that can be answered by reading information in Quercus will not be addressed. You are encouraged to ask questions in class and during office hours. If you would like to discuss class material further, please come to office hours. To learn more about how to communicate with professors consult: https://www.studentlife.utoronto.ca/hello/your-profs.

F. READINGS AND COURSE SCHEDULE

1. Readings:

Primary readings are indicated in the lecture schedule, which can be acquired through the UofT Library online catalogue. The book indicated below is complimentary for this course and can be acquired through the UofT Library online catalogue.

-Anderson, D., A. Goudie, and A. Parker. 2013. *Global Environments Through the Quaternary: exploring environmental change*. Oxford: Oxford University Press. Abbreviated as **A.**

2. 2020 Class Schedule at a Glance.

Week	Date	Topic	Readings	Assignment Due
1	Jan 9	Course Overview. Historical Ecology: Understanding Human History.	Szabó, P., 2015. **Historical ecology: past, present and future: Historical ecology**. Biol Rev 90, 997–1014. https://doi.org/10.1111/brv.12141	
2	Jan 16	Earth System Functioning: Plate Tectonics and Climate Dynamics	Frisch, W., Meschede, M., Blakey, R., 2011. **Contractional theory, continental drift and plate tectonics**. In: Plate Tectonics. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 1–13. A:Ch#9 **The Causes of Climatic Change.**	
3	Jan 23	Methods of Environmental Reconstruction: Paleoecology	Bradley, R.S., 2015. **Paleoclimatic Reconstruction**, in: Paleoclimatology. Elsevier, pp. 1–11. A:Ch#2 **Sources of evidence for Reconstructing Past Environments.**	
4	Jan 30	The Human Enterprise and the Late Glacial Maximum. What happened to the Megafauna?	Levin, N. E. 2015. **Environment and Climate of Early Human Evolution**. Annual Review of Earth Planetary Science, 43, 405–429. Malhi, Y., Doughty, C.E., Galetti, M., Smith, F.A., Svenning, J.-C., Terborgh, J.W., 2016. **Megafauna and ecosystem function from the Pleistocene to the Anthropocene**. Proc Natl Acad Sci USA 113, 838–846. A:Ch#8 **Links between Environmental Change and Human Evolution and Society.**	
5	Feb 6	The Holocene: How unique is this Interglacial? Planetary Boundaries.	Steffen, W., Richardson, K., Rockström, J., Cornell, S., Fetzer, I., Bennett, E., Biggs, R., Carpenter, S., 2015. **Planetary boundaries: Guiding human development on a changing planet**. Science 347: 6219 A:Ch#5 **Environmental Change in Post-glacial Times**	**Outline and Bibliography due**
6	Feb 13	**In Class Mid-Term Exam**		
7	**Feb 17-21**	**READING WEEK – NO CLASSES**		
8	Feb 27	The settlement of Human Societies: Agriculture, Forestry and Farming. Domestication of Landscapes.	Bellwood, P., 2012. **How and Why Did Agriculture Spread?** In: Gepts, P., Famula, T.R., Bettinger, R.L., Brush, S.B., Damania, A.B., McGuire, P.E., Qualset, C.O. (Eds.), Biodiversity in Agriculture. Cambridge University Press, Cambridge, pp. 160–189.	

Week	Date	Topic	Readings	Assignment Due
9	Mar 5	Old World Societies: Africa to Eurasia links – Silk Road, Spice Routes.	Yang, L., Bork, H., Fang, X., Mischke, S., Weinelt, M., Wiesehöfer, J. 2019. **On the Paleo-climatic/Environmental Impacts and Socio-Cultural System Resilience along the Historical Silk Road.** In: Yang, L.E., Bork, H.-R., Fang, X., Mischke, S. (Eds.), Socio-Environmental Dynamics along the Historical Silk Road. Springer International Publishing, Cham, pp. 3–22.	
10	Mar 12	New World Societies: Across Beringia Turtle Island, Mesoamerica, and the Andes.	Douglas, P. M. J., Demarest, A. A., Brenner, M. & Canuto, M. A. 2016. **Impacts of Climate Change on the Collapse of Lowland Maya Civilization**. *Annu. Rev. Earth Planet. Sci.* **44**, 613–645. Whitney, B.S., Cárdenas, M.L., 2017. **Legacies of Pre-Columbian land use on Latin American ecosystem composition and diversity: A case for paleoecology**. PAGES Mag 25, 84–85.	
11	Mar 19	The Medieval Times and the Little Ice Age: Onset of a Globalized World.	Rull, V., Cañellas-Boltà, N., Margalef, O., Sáez, A., Pla-Rabes, S., Giralt, S., 2015. **Late Holocene vegetation dynamics and deforestation in Rano Aroi: Implications for Easter Island's ecological and cultural history**. Quaternary Science Reviews 126, 219–226. Slavin, P., 2016. **Climate and famines: a historical reassessment**. WIREs Clim Change 7, 433–447.	**Final Essay Due**
11	Mar 26	The Great Acceleration. Socio-Ecological Systems: To collapse or to restore?	Steffen, W. *et al.* 2018. **Trajectories of the Earth System in the Anthropocene**. *Proc Natl Acad Sci USA* **115**, 8252–8259.	
12	April 2	Are we in the Anthropocene? Lessons from the Past into the Future.	Giraldo, O.F., 2019. **The Future, Behind Us.** In: Political Ecology of Agriculture. Springer International Publishing, Cham, pp. 117–133.	