Syllabus

Course Title: The Geology of Just About Everything-Tales of a Field Geologist
Dates: January 31 to February 28, 2022
Time: 10AM- 12PM

Overview

In this course we will look at Earth History from beginning to end, focusing on a few key events or processes that have shaped our planet and shaped the emergence of life and our species. I have traveled far and wide in exploring this history and I can relate many personal experiences that I hope will make the telling interesting and relevant. Below is a list of five topics that we will explore in this course, closing with some speculation about how intriguing our time period (the Holocene) will appear to geologists and tourists millions of years from now. There are also one to two background readings with each lecture session. I will bring in some examples of rocks types encountered in my travels to illustrate various points in the lectures.

Date	Topic	Reading
January 31	Earth Evolution and The Emergence of Oxygen	Berner, Blaustein
February 7	Mountain Building and Earth Climate: Adventures in Tibet and Nepal	Ruddiman
February 14	Major Catastrophies in Earth History	Schulte
February 21	Search of Early Hominids in East Africa	Ko
February 28	the Geology of the Future	Reed . Zalasievicz

I will make copies of the following papers available online:

Berner, R. A., Van den Brooks, J. M. & Ward, P. D., 2007. Oxygen and evolution. Science 316, 557–558. (doi:10. 1126/science.1140273).

Blaustein, R., 2016. The Great Oxidation Event. Bioscience 66 (3), 189-195.

Ko, K.H., 2015. Origins of Bipedalism. Brazilian archives of Biology and Technology, vol. 58, (6), 929-934.

Ruddiman, W.F. and Kutzbach, J.E., 1991. Plateau uplift and climate change. Scientific American, March 66-75.

Reed, C., 2015. Dawn of the Plasticene. New Scientist Jan 25, p. 28-32.

Peter Schulte et al., 2010. The Chicxulub Asteroid Impact and Mass Extinction at the Cretaceous-Paleogene Boundary. Science 327, 1214 (2010)

Zalasiewicz, J., Gabbott, S., Waters, C.N., 2019. Plastic waste: how plastics have become part of the Earth's geological cycle. Waste, Chapter 23, 443-https://doi.org/10.1016/B978-0-12-815060-3.00023-2.