What is it?

Big History is the study of the past as a whole—not just of human societies. It includes the study of the earth and the universe and tries to understand how human beings are connected to their environments and the billions of years of historical evolution that preceded their appearance on the planet. Beginning with Big Bang cosmology and continuing all the way through to the future, Big History is an attempt to put *everything* into perspective.

What will we read?

Required:


Recommended:


These texts are available in the AUC bookstore and on reserve in the library, but I suggest you purchase a copy. It will be easier for your coursework and they are good books to add to your collection😊.
Do the readings *before* you come to class. At least skim through the chapter. I've tried to keep the readings relatively brief, but some of the material is rather challenging, and it will help a lot if you are familiar with the ideas before we discuss them.

**How do I earn a good grade?**

- Attendance/participation: 10%
- On-line participation: 10%
- Group video presentations: 20%
- Take-home writing assignments (four x 10%): 40%
- The Big Picture: 20%

**What are we going to do?**

The idea here is to share this experience through talking, reading, writing, in-class work ... I want it to be a fun learning environment. This is a unique course and hopefully it will be one of the most interesting and exciting ones that you will ever take, for it concerns all of us ... Where we come from, who we are, the meaning of life, what will happen in the future.

Thus one thing you need to do is to come to class and come to class having done some reading and with some questions. In other words, participate! It also means joining and becoming an active member of our Facebook group. This will be completely student-run and student-centred. After the semester is over, I will take a look at it to see who has contributed what.

We will also be doing some in-class presentations. These will be short videos prepared by groups to illustrate the concepts that we will be examining in this course. Groups will change over time but each student will participate in creating two of the presentations. Lists of topics and dates of presentations will be distributed in class.

There will be four short take-home writing assignments based upon the readings and lectures. Topics posted on Blackboard most weeks and you may choose any four you wish.
At the end of the semester there will be an in-class writing assignment—"The Big Picture"—in which you will have the opportunity to summarize your experiences in the course.

When are we going to do it?

Week 1

Jan 31 Introduction

Big History is a new approach to the past that combines the natural and social sciences. Every society has an explanation for creation. Big History’s explanation is modern/scientific and relies upon the idea of evolution and the Big Bang theory of the origins of the universe.

Feb 3 The universe was created around 13 billion years ago when matter and energy exploded out of emptiness creating both time and space.

*Maps of Time*, pp. 1-5, 17-28; *Big History*, pp. 3-7

Week 2

7 As the universe cooled, galaxies and stars formed. The sun and our solar system were formed in turn following the collapse of a supernova about 4.6 billion years ago. Stars provide both the raw material from which the earth was created and the energy that fuels the biosphere.

*Maps of Time*, pp. 39-56; *Big History*, pp. 7-11

10 The earth was formed about 100,000 years later from debris left over from the explosion of that same supernova. The earth too is about 4.6 billion years old. Early earth was a mass of rock and trapped gases. Over time, the core heated up and melted, the earth’s crust was formed, carbon dioxide seeped out to create an atmosphere, and it rained for several million years, creating the oceans.
Week 3

14 Single-celled organisms, little more than strands of DNA floating in a membrane, appeared about 3.5 billion years ago. As these organisms, a sort of bacteria, began the process of photosynthesis, free oxygen was released, creating earth’s life sustaining atmosphere, and the conditions necessary for the evolution of the first multi-celled organisms.

17 Beginning with what is called the “Cambrian explosion” (c. 600 million years ago), the first organisms with shells appeared; then the first corals, vertebrates, fishes, trees, sharks, amphibians, reptiles and insects. Coal formed at the same time.

Week 4

21 Between 250 and 150 million years ago dinosaurs roamed the earth. Also the first birds, plants and mammals. Around 65 million years ago a huge asteroid slammed into the planet. The resulting dust cloud blocked out the sun, most vegetation died, and the dinosaurs became extinct.

24 Following the extinction of the dinosaurs, the first primates appeared, followed by apes, and around 36 million years ago, the first hominids. The hominid and ape lines separated about 23 million years ago, and the first human-like creatures (Australopithecines), came down out of the trees and learned to walk on two legs about 5 million years ago.
Week 5

28 After more than 3.5 million years of further evolution in terms of brain size, our first human-like ancestors (*homo erectus*), appeared. They used tools, fire, lived in small kin groups, and spread across the face of the earth. Our species, *homo sapiens*, capable of speech, evolved in east Africa around 250,000 years ago and soon replaced all other hominines to dominate the planet’s food chain and natural resources.

*Maps of Time*, pp. 171-180; *Big History*, pp. 38-56

March 3 By 100,000 years ago they had moved into Asia and from there across the planet. All people on the earth today have their origins in east Africa. At this time, there were about 500,000 human beings.

*Maps of Time*, pp. 180-202; *Big History*, pp. 57-71

Week 6

7 About 10,000 years ago, some hunter-gatherer societies made the transition to agriculture and herding. This is called the “Neolithic Revolution.” It was the most important development in human history until the industrial revolution (c. 1750 CE).

*Maps of Time*, pp. 207-222, 238-243; *Big History*, pp. 75-93

10 The earliest civilizations, which were characterized by cities, writing, monumental architecture and a more complex social hierarchy emerged in the Middle East, India and China, between 5000 and 1000 BCE.

*Maps of Time*, pp. 259-282; *Big History*, pp. 94-109
**Week 7**

14 The ancient world (to 1000 CE) witnessed the power of the first great empires: Egyptian, Greek, Roman, Persian and Byzantine; the Gupta empire of India, the Ch’in and Han dynasties in China; the Carolingian dynasty in Europe; the kingdom of Ghana.

*Maps of Time, pp. 283-289, 293-305; Big History, pp. 110-126*

17 Around this same time (c. 1\textsuperscript{st} and early 2\textsuperscript{nd} millennium CE), as both technological innovation and disease began to have an important impact among the old-world populations of Eurasia, powerful empires/cultures appeared in central and south America.

*Maps of Time, pp. 306-316; Big History, pp. 127-146*

**Week 8**

21 As the power of states continued to grow, the world’s great religions arose: Zoroastrianism, Judaism, Christianity, Islam, Hinduism, Buddhism and Confucianism.

*Maps of Time, pp. 316-332*

24 On the eve of the “Modern Revolution,” agriculturalists, pastoralists and foragers existed side-by-side across the globe in a complex and diverse arrangement of civilization and cultures.

*Maps of Time, pp. 335-342*

**Week 9**

28 (Spring Break, until April 5\textsuperscript{th})

31 (Spring Break)
Week 10

April  
4  (Spring Break)
7  (International Day)

Week 11

11  On the eve of the “Modern Revolution,” agriculturalists, pastoralists and foragers existed side-by-side across the globe in a complex and diverse arrangement of civilization and cultures.

*Maps of Time*, pp. 335-342

14  Between 1000 and 1700, due, in large part, to population growth and technological change, the Modern Revolution began to unfold.

*Maps of Time*, pp. 342-351; *Big History*, pp. 168-187

Week 12

18  In these years, the Maya, Inca and Aztec empires of central and southern America reached their peak; the Mongols, followed by the Ottomans, the Mughals, and the Safavids spread out across western, central and southern Asia; the Ming dynasty was founded in China, as well as the Tokugawa shogunate in Japan; and the empire of Zimbabwe became powerful in eastern Africa.

*Maps of Time*, pp. 364-380; *Big History*, pp. 147-167

21  In the fifteenth, sixteenth and seventeenth centuries, Europeans developed ships, maps, navigational techniques and the knowledge of winds that allowed them to reach and link every part of the globe.
Maps of Time, pp. 380-389; Big History, pp. 188-209

Week 13

25 (Sinai Liberation Day)

28 Likewise in this period, Europe saw the invention of printing, guns, the early Scientific Revolution, the Renaissance and Reformation (in Europe). These developments led to the emergence of the first secular nation-states and, in England, the world’s first constitutional system.

Maps of Time, pp. 389-401

Week 14

May 2 The industrial revolution of the eighteenth and nineteenth centuries created the social and economic conditions for the modern world.

Maps of Time, pp. 406-426; Big History, pp. 210-229

5 The French Revolution set the stage for the emergence of the modern, democratic nation-state. Beginning in the mid-to-late nineteenth century, the effects of the industrial and French revolutions were felt across the globe.

Maps of Time, pp. 426-438

Week 15

9 In the twentieth century, capitalism became the dominant mode of production and a series of technological/technical innovations including the invention of the internal combustion engine, the multinational corporation, atomic power and electronics.
Colonialism was entrenched, then destroyed; nuclear power was discovered; there was a revolution in communications and computer technology; and many traditional lifeways were destroyed.

As the world's population grew from 1.5 to over 6 billion, man's impact on the environment reaches dangerous levels.

In the twenty-first and twenty-second centuries, the nation-state as we know it will be replaced by some form of world government and technological advances will solve our major ecological problems, but not before some world-wide biological crisis greatly reduces the population of the planet. The colonization of space and other planets will begin within the next thousand years. In about three billion years, the earth will become uninhabitable because the sun will begin to die. Several billion years later, the universe will decay into a state of featureless equilibrium.

The Big Picture