

CLIMATOLOGY, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description

Climate is a central component of the physical environment, playing an important role in a wide range of human activities. The ability to force changes in the global climate system may be one of the more significant ways in which human society will impact Earth's physical environment in the near future. The Climatology minor in the College of Earth and Mineral Sciences is an interdisciplinary program drawing from the fields of meteorology, geography, and geosciences. The minor provides an overview of the physical processes that control present-day climate. It also provides an introduction to the history of climate change through geologic time, and presents some of the causes and consequences of potential future climate change and variability.

What is Climatology?

Climatology is an integrative science focusing on interactions between energy and mass flows among the atmosphere, hydrosphere, lithosphere, biosphere, and cryosphere and on the increasing impact of human activities—both inadvertent and intentional—on climate from local through regional to global scales. Drawing from meteorology and atmospheric sciences, geography, and geosciences, climatologists investigate the physical and chemical feedbacks involved in climate stability, the relationships between spatial and temporal scales in climate, and the physical processes associated with inter-annual climate variations. Climatologists use field experiments, remote sensing data, online observation archives, GIS analysis, and computer modeling to understand the physical processes and spatial and temporal patterns of climate systems, climate variability and change, and climate impacts.

You Might Like This Program If...

- You want to understand what is special about the physical climate processes happening in a given location.
- You are interested in how the climate processes of a place relate to those of others in the region.
- You want to learn how energy and mass flow into and out of a region.
- You want to find out if biophysical processes change with spatial scales.
- You want to study how people influence climate processes and vice versa.