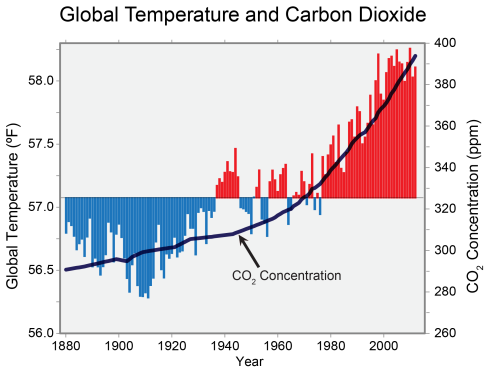
Mathematics of Climate Science

Fall 2017

MA 591 Sec 602

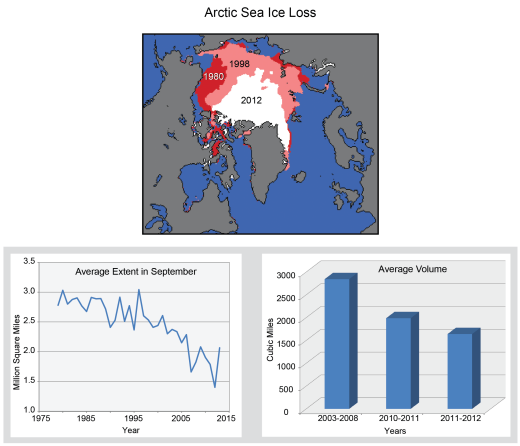


Source: NCA3

Are you interested in learning how mathematics contributes to the study of the Earth's climate? Are you looking for an opportunity to gain experience working with real data? This class will be a hands-on exploration of mathematical techniques (e.g. model calibration, selection, and extrapolation, …) with a wide array of climate data sets, highlighted with guest lectures by subject matter experts (from NOAA, CDC, ...).

About the course:

- Distance education: work on your own schedule, no lectures to attend in person
- Prerequisites: MA 341, MA 405, knowledge of high-level programming language
  NOTE: **No** prior knowledge of meteorology or climatology is required
- Grading will be based on projects studying the application of mathematics to the following (tentative) topics:
  - Atmospheric Carbon Dioxide
  - Global Temperature Station Measurements
  - Sea Ice Concentration
  - El Niño characterization
  - Precipitation
  - Impacts of climate change



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About the instructor:

I am an off-campus adjunct faculty member working for the North Carolina Institute for Climate Studies (https://ncics.org) which is co-located with NOAA's National Centers for Environmental Information (https://www.ncei.noaa.gov) in Asheville, NC (the world's largest active archive of weather and climate data).

Questions?

Please contact Jessica Matthews: jlmatthe@ncsu.edu or jessica.matthews@noaa.gov