

# ATM S 111, Global Warming: Understanding the Forecast



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# Outline



- How exactly **the Sun** heats the Earth
  - How strong?
  - Important concept of “**albedo**”: reflectivity
- How the **greenhouse effect** works
  - How the Earth cools
  - And how greenhouse gases lead to *less cooling*

# From Before We Asked...



- What factors influence climate at a given place?
  - Sunshine (and latitude)
  - Topography/mountains
  - Proximity to oceans and large lakes
  - Ocean currents
  - Presence of trees/vegetation
  - Etc.
- But what are the main factors that control the global climate?
  - We'll study this next