

Global Climate Systems

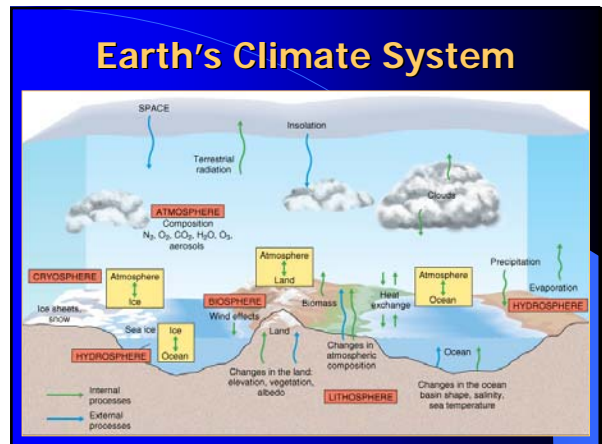
- Earth's Climate System and Its Classification
- Tropical Climates (A)
- Dry Arid and Semiarid Climates (B)
- Mesothermal Climates (C)
- Microthermal Climates (D)
- Polar Climates (E)
- Global Climate Change

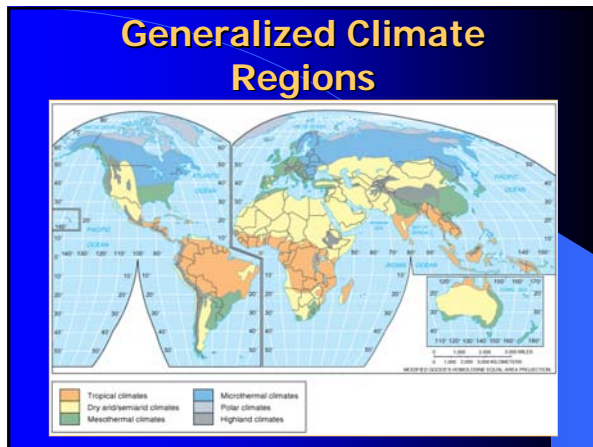
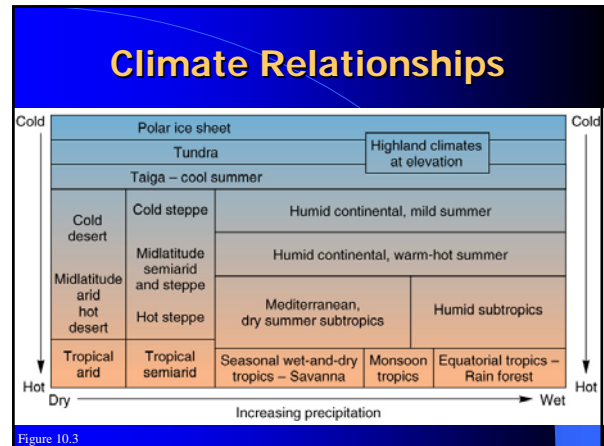
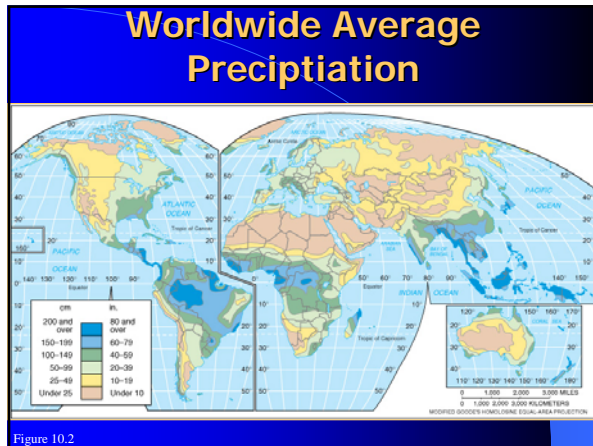
Climate

- Climate is weather over time
- Climatology is the study of climate
- Climatic regions are areas with similar weather statistics

Earth's Climate System and Its Classification

- Climate Components: Insolation, Temperature, Pressure, Air Masses, and Precipitation
- Classification of Climatic Regions
- The Köppen Climate Classification System
- Global Climate Patterns





- ### Köppen Climate Classification
- Empirical system
 - Began with heat zones in 1884
 - Included plant communities in 1900
 - Published first wall map in 1928

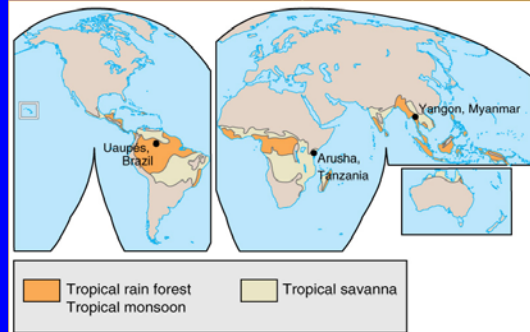
- ### Köppen Classification Criteria
- Average monthly temperatures
 - Average monthly precipitation
 - Total annual precipitation

- ### Köppen's Climate Classifications
- Tropical Climates (A)
 - Dry Arid and Semiarid Climates (B)
 - Mesothermal Climates (C)
 - Microthermal Climates (D)
 - Polar Climates (E)

Tropical Climates (A)

- Tropical Rain Forest Climates (Af)
- Tropical Monsoon Climates (Am)
- Tropical Savanna Climates (Aw)

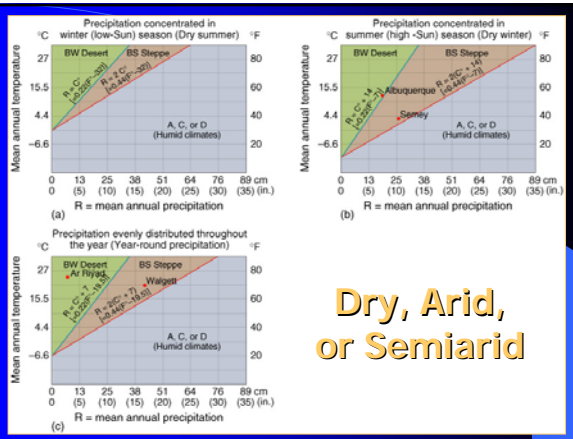
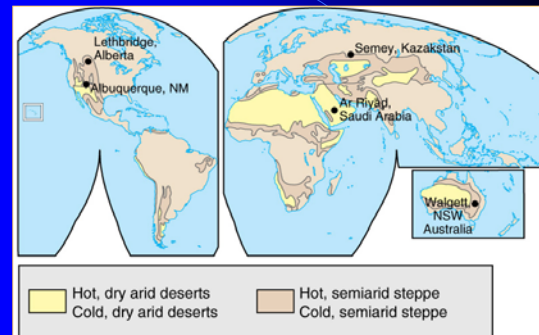
Tropical Climates (A)



Dry, Arid, and Semi-arid Climates (B)

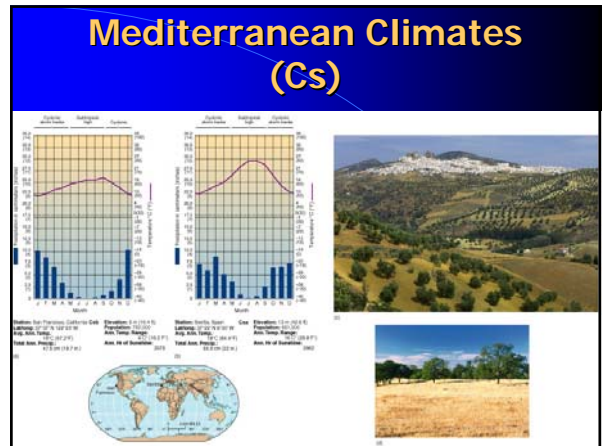
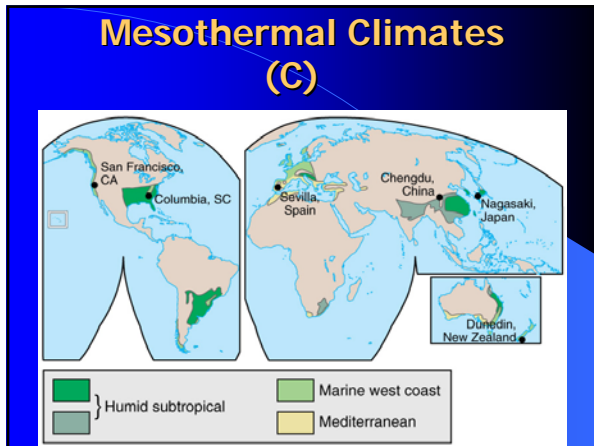
- Desert Characteristics
- Hot Low-Latitude Desert Climates (BWh)
- Cold Midlatitude Desert Climates (BWk)
- Hot Low-Latitude Steppe Climates (BSh)
- Cold Midlatitude Steppe Climates (BSk)

Dry, Arid, and Semi-arid Climates (B)

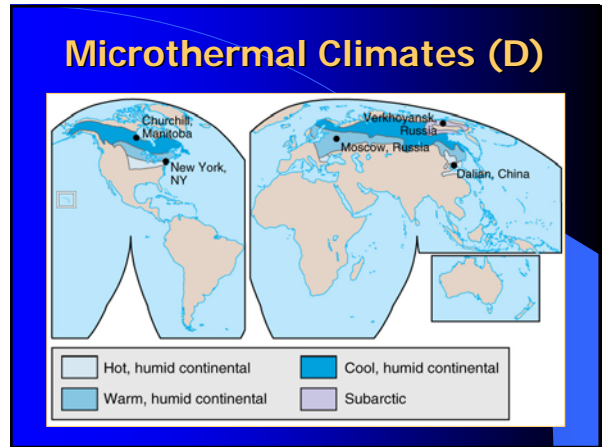


Mesothermal Climates (C)

- Humid Subtropical Hot-Summer Climates (Cfa, Cwa)
- Marine West Coast Climates (Cfb, Cfc)
- Mediterranean Dry-Summer Climates (Csa, Csb)



- ### Microthermal Climates (D)
- Humid Continental Hot-Summer Climates (Dfa, Dwa)
 - Humid Continental Mild-Summer Climates (Dfb, Dwb)
 - Subarctic Climates (Dfc, Dwc, Dwd)



- ### Polar Climates (E)
- Tundra Climate (ET)
 - Ice Cap Climate (EF)

