LAST TIME

• Introduction
• Latin American Map: You set the foundations for the study of human-environment relations in Latin America.
• Course Syllabus: Course objectives, evaluation, and assignments
TODAY

• Latin American Diversity: Introduction
• What is Geography?

• Physical Geography of Mexico, Caribbean, and Central America:
  1. Mexican drylands
  2. Mesoamerican Highlands
  3. Coastal Lowlands
What is Geography?

• The study of phenomena relative to space, scale and place
  -this is the “lens” through which geographers study virtually any phenomena using a host of methods.

• The study of human-environment interactions
  -This is a core theme of geographical inquiry
Latin America Diversity I

• Great size, especially N-S
• Topographic - land forms and elevation
• In many places diversity is very close spatially - many LA countries are quite diverse
• Biotic diversity - from deserts to tropical rainforests.
Latin America Diversity II

- **Geographic diversity** - vast differences in size of countries, resource wealth, etc.
- **Economic diversity** - vast differences in wealth among and within countries
- **Pre-Columbian cultural diversity** - Amerindian cultures from empires to hunting-gathering bands
- **Diverse immigration experience** and resulting population patterns - Amerindians plus Africans (as slaves), Asians, and Europeans
Commonality: Roughly **common** historical and cultural experience - unites

- Roughly similar economic experience of Iberian colonialism
- Broadly similar language, religion, cultural values (but with important exceptions)
- Common physical environmental regions overlap multiple countries
Physical Geography in Latin America

• **Climate** (long term norms of weather) - temperature, precipitation, seasonality, etc.
• **Natural vegetation** - super diverse due to elevation, latitude, and precipitation
• **Soils** - great variation but with patterns
• **Land forms and elevation** - the latter is very important to climate and natural vegetation
Latin American Environmental Subregions: Northern Mexican drylands

- ~ Mexico North of tropic of Cancer
- Climate - desert and steppe climate (Bw & Bs)
  - very little precipitation
  - wide seasonal temperature swings
- Vegetation: mostly arid adapted (except at elevation)
- Soils - variable
Climate: Northern Mexican drylands

- Climographs (e.g., compare with San Francisco)
- Very little precipitation
  - Dry
  - And drier!
- Wide seasonal temp swings
- Examples
Northern Mexican drylands

- Vegetation: mostly arid adapted (except at elevation)
- Soils - quite variable
- Mountain and plateau land forms
  - Sierra Madre (Oriental & Occidental)
Environmental Sub-region II: Middle American highlands

- **Land forms** - very complex & tectonic
- Soils - micro-variability
- Vegetation types vary with elevation
- Landscapes
Environmental Sub-regions II

Middle American highlands

- Climate - role of the “tropics” and elevation key to understanding
- Vegetation types vary with elevation
- Tropical seasonality of rainfall (summer)
- **Example: Mexico City**
Middle American & Caribbean lowlands

• Land forms and soils
  ➢ Limestone (karstic) & tectonic (volcanic)
Middle American & Caribbean lowlands

- **Climate** (Köppen class Aw & Af)
  - *tierra caliente* the hot and humid lands one thinks of as “tropical”
  - “**high sun**” precipitation – a tropical characteristic
  - Hurricanes
Middle American & Caribbean lowlands

- Vegetation - varies with windward/leeward slopes and rain "shadows"
  - "Rain forests"
  - Savannas
Destination of UCSB students?
Northern Mexican Dry lands
San Francisco, CA

- Latitude/Longitude = 37.45° N; 122.26° W
- Average Annual Temperature (°C) = 13.75
- Annual Temperature Range (°C) = 9
- Total Annual Precipitation (mm) = 475
- Summer Precipitation (mm) = 54
- Winter Precipitation (mm) = 421
Chihuahua, Mexico; 392 mm annual precipitation; 1418 m elevation;
SONORAN DESERT

Parker, AZ; Annual precipitation 9.1mm;

mm

°C

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Precipitation
Temperature
2: Sierra Madre Occidental: Copper Canyon
4: Coastal Plain looking E towards Sierra Madre Occidental
Highland Chiapas, Mexico
Volcano near Antigua, Guatemala
Hurricane Mitch (1998) pounded the rimland of Honduras and Nicaragua, killing at least 10,000 people and leaving 2.5 million homeless.

Montserrat. Volcanic eruptions since 1995 have forced the evacuation of the inhabitants.

Barbados and Antigua. These small, low-lying islands with a volcanic base and a limestone overlay possess some of the region’s finest soils. Ideal for growing sugarcane, these islands emerged as early centers for the sugar-driven plantation economy that spread throughout the region.

Guiana Shield. The ancient, exposed rock surfaces of the Guiana Shield make very poor soils, thus limiting agriculture. The narrow coastal plain is where most of the commercial agriculture occurs.
Middle American Lowlands

Veracruz, Mexico; annual precipitation
Elevation 9 m

Graph showing monthly precipitation and temperature in Middle American Lowlands, with peak precipitation in July and low temperatures in December.
Hurricane season
Southern (rain shadowed) Dominican Republic
Orographic precipitation and drought on a Caribbean island.