

**Hunter College - CUNY**  
**Geography and Environmental Science**  
**STUDY GUIDE for EXAM II**

**Friday, April 16 through Monday, April 19, 2021**

**1 hr., 15 min. timed exam**

BlackBoard will automatically turn the exam off at 9 PM April 19.

Don't be late!

This exam will focus on the material covered during the second portion of the course. In the syllabus, this covers topics under Physical Geography:

- **Earth-Sun relationships**
- **Earth Systems: atmosphere, hydrosphere, lithosphere**
- **Earth Habitat/Environmental protection: biosphere, natural controls and cycles, possess/hazards and earth resources**

**You are responsible for the information contained in class lectures, power point slide presentations 9-18, textbook chapter assignments (2, 3, 4 and 5); all the electronic handouts; and the extra credit atlas exercise.**

Review the maps and diagrams in the textbook that illustrate the concepts discussed and those on the PowerPoint lecture slides. There will be multiple choice and true/false short answer questions, some of which will be aimed at maps and/or diagrams.

**Focus your attention on the broad generalizations of Earth Systems.**

- Know the various processes that govern these systems or are behind the issues, how they are interrelated, and how they affect people.
- Study definitions. There is a glossary at the back of the textbook.
- Review the atlas extra credit **Climates** even if you did not complete it or submitted the answer sheet.

**PLACE NAME LIST (North America, South America, Antarctica) for Exam II is available on pages 6 and 7 of this Study Guide.**

Know the **map location** of the place names for **North America, South America and Antarctica** on the **Place Name List**. **Know the map location of all the countries of North America and South America (EXCEPT those countries found on the Caribbean islands located between Puerto Rico (include) and Trinidad & Tobago (include; see list.)).** This will in the form of a multiple-choice question matching names to numbers on a map. Consult the appropriate maps in an atlas and the world maps attached to the front and back pages of the textbook to locate these places. Also consult the web sites for the location of the countries and physical features, as [www.googleearth.com](http://www.googleearth.com).

## **SUMMARY:**

- ✓ Part II of the course focused on the basics of physical geography and human interaction with nature. The role of a geographic literate person is to be aware of all the component parts, analyze situations and make decisions that will not harm the environment.
- ✓ The interrelationship between individual earth systems and between earth systems and people was stressed. When one thing changes, other things change too.
- ✓ Physical landscape is the natural conditions, while the cultural landscape is the imprint of human activity on the natural environment.
- ✓ Natural processes that don't affect people usually go unnoticed, but those that are harmful to people are called hazards. People can be disruptive to natural processes.
- ✓ Planet Earth has finite dimensions with 71% of its surface covered by water. These remain constant while human population continues to grow. People exist with earth environment and people use the earth's resources that they deem useful to them
- ✓ Conditions on Earth can be likened to that of a spaceship: it is a closed environment. The atmosphere creates the conditions to sustain "life as we know it" on the Earth's surface.
- ✓ The relationship between the earth and the sun is paramount for our existence with temperature the key. Temperature is influenced by proximity to the sun, earth movements (rotation; revolution) and positions (inclination; parallelism) and relationships to the sun (astronomical factors; solar energy).
- ✓ Ocean tides are created by the earth's rotation (centrifugal force) and its position in relation to the moon and the sun (gravitational pull).
- ✓ Coriolis Effect is the apparent deflection of moving objects not attached to the earth's surface and the phenomena has an effect on earth systems as well as human navigation.
- ✓ Seasons are a result of shifting vertical rays of the sun. Rotation + revolution + inclination + parallelism results in the movement of solar energy received at any point on the earth's surface during the annual cycle.
- ✓ The hydrosphere is the water area of the earth and oceans play a very important role in the earth's natural and human environments: movements and temperature. Ocean temperature affects climate. The Hydrologic Cycle prevents us from running out of clean water.
- ✓ Ocean currents are both horizontal (surface) and vertical (deep sea). They have unique characteristics, especially temperature and salinity, and act to redistribute heat. Gyres are giant circulation systems. Ocean movements (waves, tides, tsunamis) are locally significant. The temperature of the oceans influences atmospheric conditions.
- ✓ The atmosphere is the envelope of gases that surround the earth. Life depends on the favorable conditions that exist there: chemical composition, temperature, pressure, wind and moisture. All are interconnected and are linked to the hydrosphere.
- ✓ Weather is the state of the atmosphere at any one point in time while climate is the average of all the weather conditions over a long period of time. Know the driving forces behind the elements of weather.
- ✓ Climates are created by influences of earth-sun and earth-environment factors. They influence all life on earth, as well as human cultural development. Climate maps show geographic distribution while climographs give us a snapshot of a location. Climates are classified by temperature (A, C, D and E groups), moisture deficiency (B group) and elevation (H group). Review the 7 natural climate controls. Review the climate chart in the textbook. Be able to differentiate the groups and be aware of the conditions that create sub-groups.
- ✓ Climate changes naturally. There has been global warming and global cooling (Ice Ages) throughout geologic history. Global warming melts frozen water at the poles and at mountain tops increasing both atmospheric humidity and the volume/temperature of the oceans.
- ✓ The lithosphere is the geologic environment. Unique features influence human activity. Topography is the study of surface features.

- ✓ The three parts of the geologic cycle are continental drift/plate tectonics, rock and mineral formation, and building and gradational processes.
- ✓ Lithospheric plate boundaries are termed divergent, convergent, and transform. Each imparts unique characteristics to the earth's crust. Hot spots are areas away from plate boundaries where points of weakness allow molten material to come to the surface.
- ✓ Ocean basin topography is very complex. Review the simplified diagrams.
- ✓ The Rock Cycle explains the formation of sedimentary, igneous and metamorphic rocks. Review the diagram.
- ✓ Forces shaping the surface landforms are termed endogenic (tectonic/building) and exogenic (gradational/reducing). The 3 tectonic/building forces are folding, faulting and volcanism. The 3 gradational/reducing forces are weathering, mass wasting and erosion. Water is the chief gradational force. Review the examples.
- ✓ Topographic regions (mountains, hills, plains, plateaus and coastlines) have characteristics that influence all life forms and land use. Terrain features form local subregions. They can be analyzed by studying physical characteristics as well human factors. Coastlines are the interface between the lithosphere and the hydrosphere. Look over the "Coastlines in Crisis" diagram. Review the component parts of all topographic regions.
- ✓ The biosphere exists at the interface of the atmosphere, hydrosphere and lithosphere. It is sun dependent. Biomes are unique zones of life - plant, animal, soils, human. The best species for a set of conditions is called "climax" (as climax vegetation), but this changes as conditions change.
- ✓ Natural controls and cycles keep the earth from running out of component parts and helps to rid itself of contamination --- unless it is overwhelmed by human-induced pollution. Review the biogeochemical cycles.
- ✓ Humans have long interacted with natural processes but have not been able to control them. Humans have impacted natural processes in a negative way (contamination, unwise practices). Humans have to learn to live with nature and anticipate the forces of nature so that natural processes do not become natural disasters.
- ✓ Humans have recognized some earth resources as being useful to them: natural resources. The value varies with supply, demand and perception for future needs. Sustainable development espouses the use of earth resources to support the needs of people without hurting the environment.
- ✓ Natural resources are termed renewable, non-renewable, biological and potential. They can be managed for both near-term and long-term use. Waste management, pollution control, waste reduction strategies may help to conserve and protect natural resources.
- ✓ Resource management and sustainable development are important concepts.
- ✓ Water resources issues (volume/quality/distribution and dependability) affect all the world's people – rich or poor. Review the groundwater diagrams

## **TERMINOLOGY/DEFINITIONS for Exam Two:**

Below is a list of terms presented in class and in the textbook. Consult the Power-Point lecture slides and the glossary at the back of the textbook for definitions.

Abyssal plain
Adiabatic lapse rate
Air mass
Air pressure
Aquifer
Atmosphere
Barrier island
Biogeochemical cycles
Biomass fuel
Biomes
Biosphere
Boundary, convergent
Boundary, divergent
Boundary, transform
Carbon emissions
Carbon-Oxygen cycle
Climate
Climate classification system
Climate controls
Climate - A Group
Climate - B Group
Climate - C Group
Climate - D Group
Climate - E Group
Climate - H Group
Climate map
Climograph
Climax community
Climax vegetation
Cloud
Coastal processes
Coastal zone
Coastline, rocky
Coastline, sandy
Compression
Communities (natural)
Condensation
Cone of depression
Continental drift

Continental island
Continental shelf
Continental slope
Coriolis Effect
Cultural landscape
Denitrification
Drought
Earthquake
Earthquake epicenter
Earthquake focus
Earth-Moon relationships
Earth-Sun relationship
Earth-Sun relationship - astronomical
Earth-Sun relationship - solar
Ecosystems
Elements of weather
Elevation
Erosion
Endogenic forces
Exogenic forces
Fault line
Faulting
Flood plain
Folding
Fossil fuel
Fracture/stress zone
Geology
Geomorphology
Glaciation
Glacier
Glacier, continental
Glacier, mountain
Gradational forces
Greenhouse gases
Groundwater
Groundwater recharge zone
Habitat
Hills

Hot spot
Human impact
Hydraulic fracturing (fracking)
Hydrologic cycle
Hydrosphere
Hydrothermal (thermal) vent
Ice jam
Igneous rock
Inclination (of earth's axis)
Jet stream
Land/biological resources
Lithification
Lithosphere
Lithospheric plate
Longshore current
Mass wasting
Mean sea level
Metamorphic rock
Mineral
Moisture
Monsoon
Monsoon, dry
Monsoon, wet
Mountain
Natural control
Natural cycle
Natural disaster
Natural hazard
Natural landscape
Natural process
Natural resource
Nitrogen cycle
Nitrogen-fixing bacteria
Nutrient cycle
Ocean basin
Ocean circulation, deep-sea
Ocean circulation, surface
Ocean current
Ocean current, cold

Ocean current, warm
Ocean floor
Oceanic trench
Oceanic wave
Oceanography
Ozone Layer
Parallelism (of earth's axis)
Pelagic island
Photosynthesis
Physical landscape
Plains
Plate boundaries
Plate tectonics
Plateau
Plateau, dissected
Plateau, tableland
Pollution
Precipitation
Precipitation, convectional
Precipitation, frontal
Precipitation, orographic
Relief (topographic)
Renewable energy
Resource management
Resource, biological
Resource, food
Resource, land
Resource, mineral

Resource, non-renewable
Resource, potential
Resource, renewable
Reuse-Replace-Conserve
Revolution
Rock
Rock cycle
Rotation
Saltwater interface
Saltwater intrusion
Seasonality
Seasons
Sediment budget
Sedimentary rock
Slope
Smog
Soil
Soil horizon
Solar system
Spaceship Earth
Spreading zone
Subduction zone
Substitutability
Sustainability
Sustainable development
Take-Move-Place
Tectonic forces
Temperature

Terrain
Thermohaline circulation
Tides (high and low)
Tidal cycles
Tidal range
Topographic barrier
Topographic region
Topography
Tragedy of the Commons
Tsunami
U-shape valley
V-shape valley
Valley shape
Vegetation sequence
Vertical zonation of climate
Volcanism
Water resources
Water table
Wave action
Weather
Weathering
Weathering, chemical
Weathering, mechanical
Wind
Wind system, global
Wind systems, local
Wind systems, local
Wind systems, region

## GEOG 101 PLACE NAME LIST for EXAM TWO

Each exam will have a place name location map section based on the list below, plus countries and political units. Consult the appropriate maps in an atlas to locate these places. Exam II will focus on place names from North America, South America and Antarctica. This section of the exam will be in the form of a matching question. You will match the names to numbers on a map.

**I. CONTINENTS**      North America      South America      Antarctica

**II. OCEANS**      Atlantic      Arctic      Indian      Pacific

### III. NORTH AMERICA

Seas/Gulfs/Bays/Lakes:      Hudson Bay      Lake Winnipeg      Gulf of Alaska  
    Bay of Fundy      Bering Sea      Gulf of Mexico      Caribbean Sea  
    Gulf of California      Baffin Bay      Gulf of Panama      Gulf of St. Lawrence  
    Great Lakes>> Lake Superior, Lake Michigan, Lake Huron, Lake Erie, Lake Ontario

Islands:      Greenland      Bahamas      Vancouver      Aleutians      Baffin      Newfoundland  
    West Indies      Puerto Rico      Hispaniola      Jamaica      Cuba      Ellesmere

Straits/Canals:      Bering Strait      Windward Passage      Panama Canal  
    Florida Strait      Yucatan Channel

Rivers:      Mississippi      Missouri      Mackenzie      Colorado      Saskatchewan  
    Columbia      St. Lawrence      Yukon      Rio Grande      Ohio

Mts./Plat./Highlands:      Appalachian      Rocky Mts.      Sierra Nevada      Columbia Plateau  
    Sierra Madre      Cascades      Brooks Range      Colorado Plateau

Peninsulas/Capes:      Florida      Yucatan      Ungava      Seward  
    Cape Cod      Alaska      Cape Hatteras      Baja California

Other Regions:      Great Plains      Great Basin      Sonoran Desert  
    Mojave (Mohave) Desert      Chihuahuan Desert

### IV. SOUTH AMERICA

Seas/Gulfs/Bays/Lakes:      Maracaibo      Titicaca      Guayaquil      Rio de la Plata

Islands:      Tierra del Fuego      Falkland      Galapagos      Trinidad      Aruba

Straits/Canals:      Drake Passage      Strait of Magellan

Rivers:      Paraguay      Sao Francisco      Orinoco      Parana      Amazon

Mts./Plat./Highlands:      Mato Grosso      Brazilian Highlands      Guiana Highlands      Andes Mts.

Peninsulas/Capes:      Cape Horn      Punta de Gallinas      Cabo de Sao Roque

Other Regions:      Llanos      Atacama Desert      Gran Chaco  
    Patagonia      Pampa

### V. ANTARCTICA

Seas:      Ross Sea      Weddell Sea      Bellingshausen Sea

Ice Shelves:      Ross Shelf      Ronne Shelf

Peninsula:      Antarctic

## **GEOG 101 COUNTRY LIST for EXAM TWO**

**Know the map location of the countries of North America and South America (EXCEPT those countries found on Caribbean islands located between Puerto Rico and Trinidad & Tobago. They are too small to appear on the exam map).**

### **NORTH AMERICA:**

Canada	United States	Mexico	Bahamas	Cuba
Haiti	Dominican Republic	El Salvador	Guatemala	Honduras
Costa Rica	Nicaragua	Panama	Jamaica	Belize

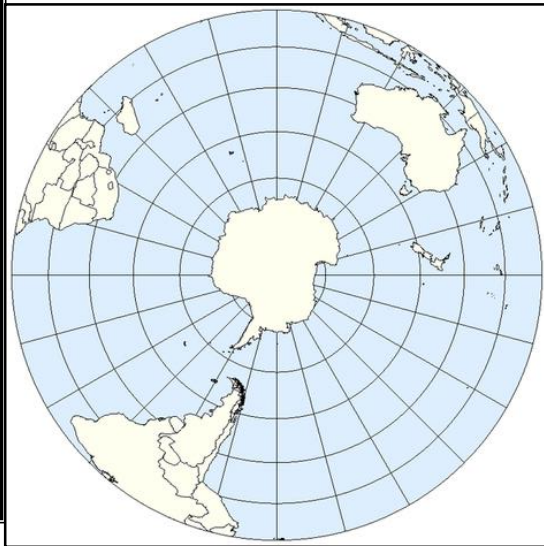
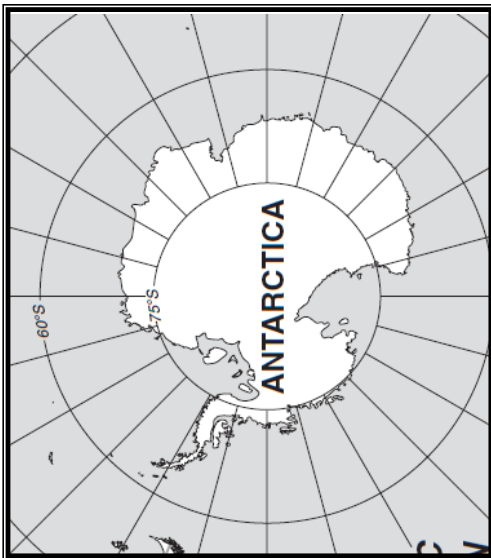
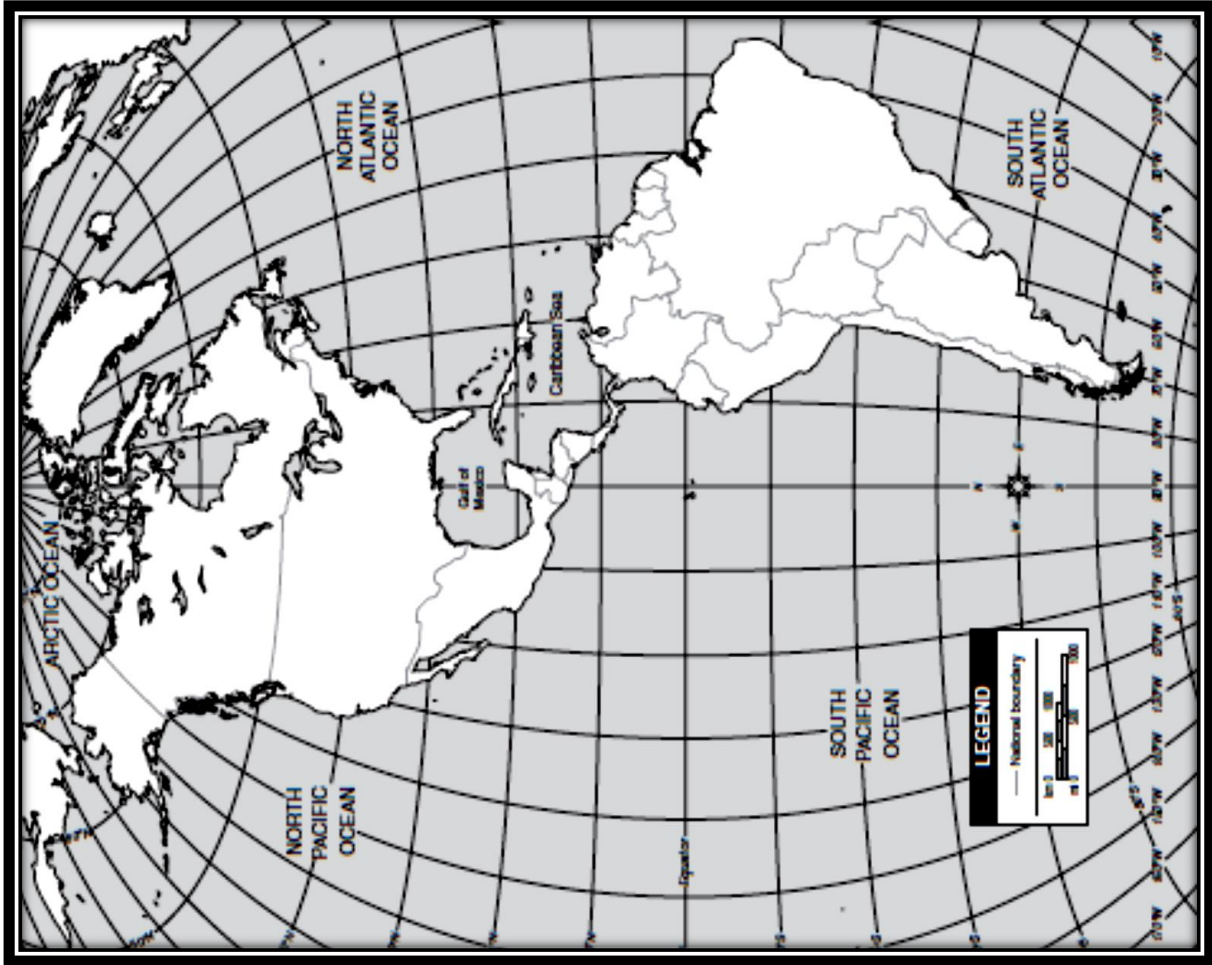
### **SOUTH AMERICA:**

Venezuela	Guyana	Brazil	Bolivia
Columbia	Trinidad & Tobago	Suriname	Uruguay
Peru	Paraguay	Argentina	
Ecuador	French Guiana	Chile	

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**See practice maps on the following pages.**

**There are additional outline maps on the Course Home Page for you to use.**







U.S.

Arctic Circle

CANADA

UNITED STATES

North  
Atlantic  
Ocean

Gulf of Mexico

THE  
BAHAMAS

MEXICO

CUBA

DOM.  
REP.

HAITI

Puerto Rico (U.S.)

GUATEMALA

HONDURAS

EL SALVADOR

NICARAGUA

COSTA RICA

EQUADOR

COLOMBIA

VENEZUELA

ANTIGUA AND BARBUDA

DOMINICA

ST. LUCIA

BARBADOS

GRENADA

TRINIDAD AND TOBAGO

GUYANA

SURINAME

French Guiana (FR.)

CAPE VERDE

PERU

BRAZIL

BOLIVIA

PARAGUAY

CHILE

ARGENTINA

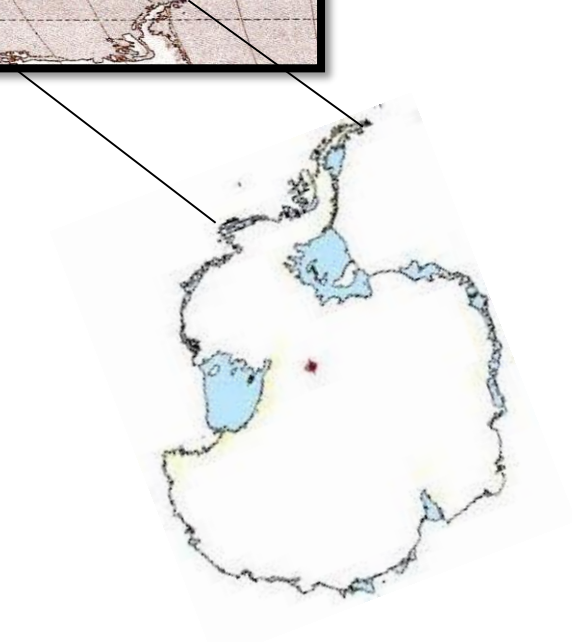
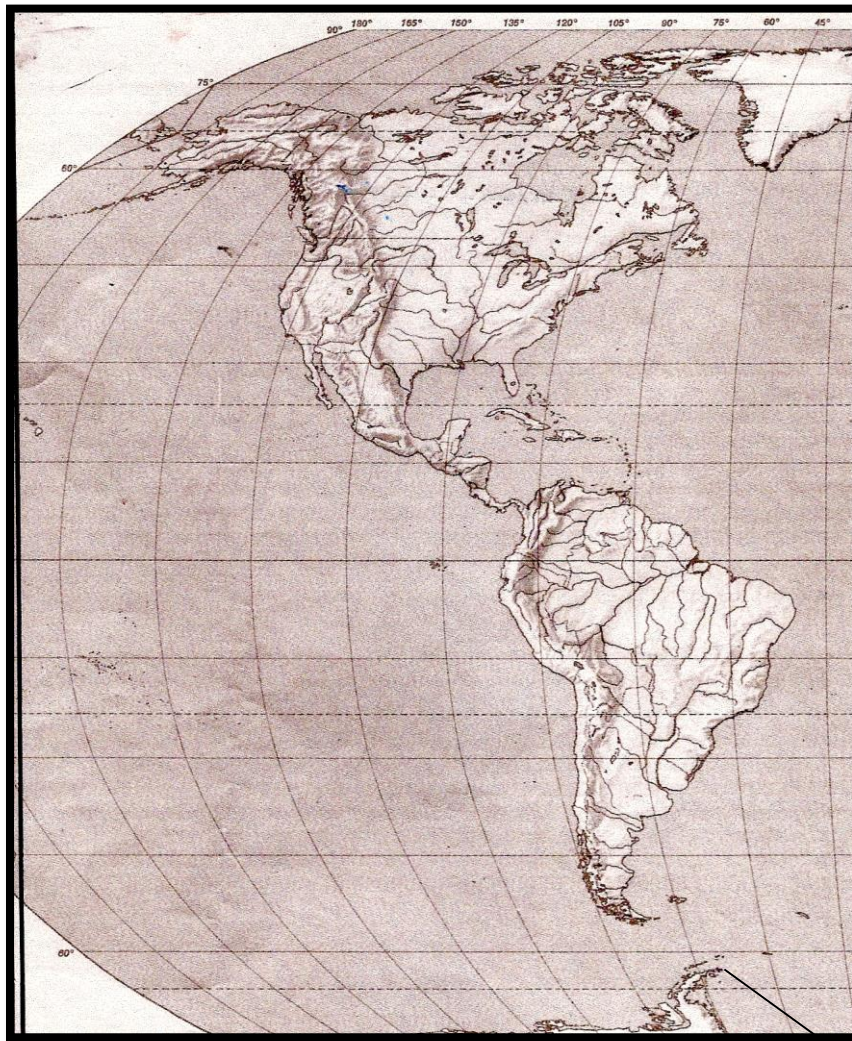
URUGUAY

Pacific  
Ocean

Atlantic  
Ocean

Pacific  
Ocean

# North America, South America and Antarctica



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