• 140 undergraduate students
• 150 graduate students
• 880 employees
• 250 PhD Faculty/Researchers
• 450 staff
• 5 Degree Programs (4 Departments)
  – Ocean and Resources Engineering *MS, PhD*
  – Geology and Geophysics *BA, BS, MS, PhD*
  – Global Environmental Science *BS*
  – Atmospheric Sciences *BS, MS, PhD*
  – Oceanography *MS, PhD*
8 Research Programs
- Hawaii Institute of Marine Biology (HIMB)
- Hawaii Institute of Geophysics and Planetology (HIGP)
- Hawaii Natural Energy Institute (HNEI)
- Center for Microbial Oceanography: Research and Education (C-MORE)
- International Pacific Research Center (IPRC)
- Hawaii Undersea Research Laboratory (HURL)
- Joint Institute for Marine and Atmospheric Research (JIMAR)
- UH Sea Grant College Program

PLUS each Department conducts research

3 minute videos
http://www.soest.hawaii.edu/soest_web/soest_videos.htm
Vision

• Advance understanding of the Ocean, Earth, and Planets
• Provide world-class education
• Foster a high-tech economy
• Promote sustainable use of the environment
STEM Opportunities at SOEST

• SOEST Internship Program
  – Opportunity to build practical experience in the fields:  
    http://www.soest.hawaii.edu/SOEST_News/Internship/index.html

• Maile Mentoring Bridge Program
  – Fulfills a desire to inspire Native Hawaiians, kamaʻāina, and 
  underrepresented ethnicities into ocean, earth and 
  environmental science professions, and partner with KCC: 
    http://www.soest.hawaii.edu/maile/index.htm

• Global Environmental Science
  – Requires that students conduct research & complete a senior 
  thesis in order to graduate (BS)

CONTACT: Leona Anthony, Director of Student Services 
(956-8763)
• Center for Microbial Oceanography: Research and Education (C-MORE)
  – Teacher grants for science education ($1500);
  – Science Teachers aboard research ships (5 days on research cruise, FREE)
  – “Labs in a Box” – 7 different science kits on various ocean topics (FREE)
  – C-MORE Scholars Program – supports academic year undergraduate research

CONTACT: Dr. Barb Bruno, CMORE Education Director (956-0901)
Many SOEST students find jobs working for faculty on research projects.
CAREERS IN

GEOLOGY & GEOPHYSICS

IS A CAREER IN GEOLOGY & GEOPHYSICS RIGHT FOR YOU?

Do you live near a volcano? Have you ever experienced an earthquake? Ever wondered how the Hawaiian islands were created, or when the next island will form? Do you like looking at pictures of the surface of the moon or Mars? Are you interested in fossils? Have you used Google Earth to explore the 'dry' Earth or the underwater world? Do you ever wonder where our drinking water comes from? If you answered "yes" to any of these questions, then come and explore a career in geology and geophysics.

WHAT FIELDS OF GEOLOGY & GEOPHYSICS ARE THERE?

- **Hydrologists** are concerned with problems of water supply, quality and management.
- **Marine Geologists and Geophysicists** investigate the ocean floor and coastal margins.
- **Mineralogists** examine minerals found in rocks and try to figure out how they formed.
- **Paleontologists** study fossils to determine how and when extinct organisms lived and evolved.
- **Petroleum and Economic Geologists** locate fuel and mineral resources, and evaluate how they can best be extracted and utilized.
- **Seismologists** monitor earthquakes and tsunamis, and model the Earth's interior.
- **Engineering Geologists** study landslides and evaluate land stability for the construction industry to determine where to build houses.
- **Volcanologists and Volcano Geophysicists** monitor active volcanoes to predict eruptions and volcano-generated earthquakes and tsunamis.
- **Planetary Geologists and Geophysicists** analyze the surfaces and interiors of the moons and planets in the solar system.
- **Astrobiologists** investigate life in extreme environments on Earth, and search for extraterrestrial life.
CAREERS IN

METEOROLOGY

IS A CAREER IN METEOROLOGY RIGHT FOR YOU?

Have you ever wondered what causes storms, or why Hawai‘i has trade winds? Are you curious why hurricanes gain strength as they travel over water, but fizzle out when they hit land? Do you want to learn how weather maps on TV are made? Are you concerned about global warming and climate change? If you answered “yes” to any of these questions, then come and explore a career in meteorology.

WHAT FIELDS OF METEOROLOGY ARE THERE?

- **Agricultural and Forest Meteorologists** study the inter-relationship between meteorology and the fields of plant, animal and soil sciences, ecology, and biogeochemistry.
- **Atmospheric Chemists** study urban and regional chemical make-up of the atmosphere.
- **Aviation/Navigation Weather Analysts** predict and analyze surface weather with direct application to operation of aircraft and marine vessels.
- **Biometeorologists** study the relationship between the atmosphere and living things.
- **Climatologists** study daily and seasonal weather events over a long period of time.
- **Dynamic Meteorologists** study the forces acting upon the atmosphere, and the equations governing the motion and the thermodynamics of the atmosphere.
- **Global Climate Change Scientists** study planetary scale atmospheric changes.
- **Instrumentation and Measurement Designers** design instruments used to measure the physical and chemical properties of the atmosphere.
- **Paleoclimatologists** study ancient climate and climate cycles.
- **Forensic Meteorologists** reconstruct past weather events for a given geographic area. The information is used mainly by insurance companies and for criminal investigations.
CAREERS IN

OCEANOGRAPHY

IS A CAREER IN OCEANOGRAPHY RIGHT FOR YOU?

Do you enjoy surfing or diving? Have you ever wondered why the ocean is salty? Are you curious about what the ocean is like under the surface? Do you know why we have tides? Do you like to go fishing? Have you ever wondered why the ocean is blue? If you answered "yes" to any of these questions, then come and explore a career in oceanography. Oceanographers apply the basic sciences to better understand the ocean.

WHAT FIELDS OF OCEANOGRAPHY ARE THERE?

★ Physical Oceanographers study the water masses and currents of the ocean, how the water masses are formed, and the driving forces that energize and shape the water’s motion as currents or waves.

★ Chemical Oceanographers examine the distribution of chemical compounds and the many chemical interactions that occur in the ocean and on the seafloor.

★ Geological Oceanographers investigate the formation and evolution of the seafloor.

★ Biogeochemical Oceanographers explore the biological, chemical and geological processes that take place in the ocean. They focus on cycles of essential nutrients, such as carbon and nitrogen.

★ Biological Oceanographers seek to understand the many diverse forms of marine life in the context of their communities and environment.

★ Paleo-Oceanographers puzzle out the history of our oceans by using computer models that attempt to recreate circulation, chemistry, biology, and geology of the prehistoric ocean.

★ Marine biologists study marine plants and animals, including their genetics, evolution, physiology, and geographic distribution patterns.

★ Fisheries Oceanographers work to maintain an abundant, healthy seafood supply by studying commercial fish and making recommendations on when, where and how much fishing to allow.

★ Microbial Oceanographers focus on the tiny organisms in the ocean (such as bacteria) and the roles they play in biological and biogeochemical cycles.

★ Coastal Oceanographers hang out close to shore. They are interested in the physical, chemical, geological and biological processes that affect coastal areas.