Environmental Science Program.

The relation of humankind to our natural environment may be the most important issue in the world today. Because of continued economic growth and population increases, humankind is putting an increased strain on ecological systems that regulate life in the global environment. Our use of water, land, mineral, and other natural resources has increased more than ten-fold in the last two centuries. This has caused increased pollution of our air, water, and soil.

The challenge for our species is to assess the non-renewable resources on which our society is based and to insure that they are developed in a manner that will be most beneficial to present as well as future generations. Another challenge is to preserve the variety of natural ecosystems on planet Earth, many of which are threatened by over-development.

We need a growing number of people with the training and background to understand the biological, toxicological, physical, and chemical aspects of environmental processes, as well as the relevant political, social, and legal considerations. These environmental professionals will require an interdisciplinary understanding of the functioning and feedbacks in global ecosystems, including our species' effect on the environment.

SMU's major in environmental geology develops the tools necessary to address urgent problems facing humankind today: contamination of our underground water supply, river flooding and earthquakes, holes in the ozone layer, acid rain, smog, burial of toxic wastes, landslides, hurricanes, coastal hazards, global warming, and preservation of ecosystem diversity.

Environmental Geology at SMU is a rigorous, flexible, interdisciplinary major.

Environmental Geology Requirements:, B. S. (35 hours)

1) One of GEOL 1301, 1305, 1307, 1308, 1313 or 1315

2) GEOL 3340 (Face of the Earth)

3) GEOL 3451 and 3452 (Earth materials I & II)

4) GEOL 3366 (Environ. Geol. and Geochemical Cycles)

5) GEOL 5384 (Hydrogeology) and 5386 (Geochemistry)

6) Two GEOL electives from GEOL 3353, 3454, 3472, 4390

7) Integrated Research/Field Geol. GEOL 4296 & 4298 or GEOL 4657

Also the following support courses must be completed:

1) CHEM 1303 with 1113 and CHEM 1304 with 1114
or
CHEM 1307 with 1113 and CHEM 1308 with 1114

2) PHYS 1303 or 1407

3) MATH 1337 & 1338 (Calculus I & II) MATH 2339 & 2343 (Calculus III & Element. Dif. Eqn.)

4) SEAS: SSH 5311 (Environ. and Hazardous Waste Law)

Environmental Geology Minor Requirements: (6 Classes)

1) One of GEOL 1301, 1305, 1307 1308, or 1313

2) One of GEOL 1315, 3340, 3353, 3363 or 3366

3) Four courses from:
GEOL 3330, 3340, 3353, 3363, 3366 (if not used in requirement (2))

BIOL 1305, 3307, 3342, 3343

SEAS: ME 1304, SSH 5311

CF: CFA 3317, CF 3397

Note: CF3317 and CF3391, if used for the Environmental Earth Sciences minor
cannot also be used for Cultural Formation credit