ext: Course Organization **Up:** Environmental Geology: GEOS-3310 **Previous:** nvironmental Geology: GEOS-3310

ubsections

Course Description

practical course examining the interactions of people and our physical environment. Natural azards, including landslides, flooding, tsunamis, volcanoes, earthquakes, erosion and sea-vel change. Air, soil, fresh and ocean water pollution problems and solutions including reenhouse gases, ozone depletion, acid rain, aquifer depletion, toxic wastes and ontamination. Energy supplies and the environment, including radioactive waste problems. lobal climate change and man's impacts on climate. Designed to fulfill the general education cience requirement. An optional laboratory class accompanies this course: Environmental eology Lab .

rerequisites

his course has no prerequisites, students are assumed to have fulfilled the math and science equirements for admission to UTD.

leeting Times & Places

Day	Time	CRN	Professor	Phone	E-mail
MWF	MWF 10-10:50am	10969	Dr. Tom Brikowski	x6242	brikowi@utdallas.edu

lass meets in SOM 2.717(see campus map). Professor's office hours are 11am-noon MW.

extbook and Other References

- **Required Text**
  Keller, E. A., Environmental Geology, p. 560, Prentice Hall, Upper Saddle River, NJ, 2000. 8th Ed., ISBN 0-13-022466-9, (Publishers description)

- **Optional**
  the publisher maintains a companion website for the textbook that contains lots of supplemental information, sample quizzes, etc.

ioogle Earth

n important goal of this class is to give the student a visceral feel for the nature of each ›pic studied. The recent release of Google Earth allows you to do this in the comfort of your wn home without field trip fees! Students are encouraged to download and use this free ›ftware, it is the intent of the instructor to provide links to Google-Earth-based lecture ıaterials on this website. Stay tuned...

Why not Self-Paced?

ıis class and a related geoscience class (The Oceans) were taught for many years in a self-aced format, enjoying great popularity among students because of the flexibility this offered. ıe self-paced format was based on the ``Keller method'' (Keller, 1968), also know as the ersonalized System of Instruction (PSI). Tyree (1997) describes the approach:

> Keller's method marries mastery learning with reinforcement learning theory. The essential features of Keller's method are self-pacing, unit mastery and positive rewards for achievement.

ıd Gallup (1998) lists the central features of the original PSI method:

- Emphasis on explicit written communication, including clear statements of expectations for student performance.
- Student-paced progression through a series of units in a course of instruction.
- The requirement that early units be mastered before later units are begun.
- Use of lectures and demonstrations for motivation, rather than as sources of critical information.
- Use of proctors for repeated testing, immediate feedback, almost unavoidable tutoring, and enhancement of the personal-social aspect of the educational process

uantitative studies of learning and retention in PSI environments have invariably found it ıperior to traditional teaching methods (Kulik *et al.*, 1979), particularly in terms of learning ıtcomes. A U.S. Dept. of Education funded-study notes that PSI was widely popular in the 970's, but has fallen into disuse, primarily because it was resource intensive for instructors, ıd poor synchrony with traditional semester schedules can prove intolerable for dministrators. The same issues caused self-paced classes to be strongly discouraged at UTD. omputer-Aided PSI (CAPSI, Pear and Crone-Todd, 1999) has evolved from the traditional ›proach, and eventually a CAPSI-format version of this class may be offered.

---

ext: Course Organization **Up:** Environmental Geology: GEOS-3310 **Previous:** ıvironmental Geology: GEOS-3310

EOS 3310, Spring 2006