SYLLABUS
GEOS 3430
INVERTEBRATE PALEONTOLOGY
SPRING 2006

Instructor: Ignacio Pujana

Office: FO 2.616, phone 972-883- 2461; E-mail: pujana@utdallas.edu

Lecture: Tuesday and Thursday 5:30--6:45 P.M. Lab: Tuesday - Thursday 7:00--8:15 P.M.

Grades: 50% Lecture. 50% Lab. Lecture Midterm = ~ 40% of Lecture Grade. Lecture Final = ~ 60% of Lecture Grade. No Lab. Final. Lab. Grade cumulative; based on scheduled tests (*see below*).

Office hours: Tuesday and Thursday: 2:00 P.M. to 5:00 P.M.

Why learn about fossils? Some more-or-less practical reasons: (1) Fossils reveal when, and how fast, organisms appeared, evolved, and became extinct; (2) Fossils are reliable indicators of the age of sedimentary rocks; and (3) Fossils are excellent indicators of past life and environments. Non-practical reasons include the pleasure of discovery, reconstructing the life of the past, and being able to critique many science fiction movies (especially the *Jurassic Park* series).

The lecture part of this course will cover the principles of paleontology, the evolution of life (especially the oceans), the use of fossils in dating and in deciphering ancient environments, and the major features of evolution and extinction as seen in the fossil record.

The laboratory part of the course will illustrate the concepts discussed in lecture, introduce you to important groups of fossils, provide field experience in collecting and analyzing fossils, and develop research skills.

There is a REQUIRED FIELD TRIP in this course. It is an all day trip, departing from the UTD at 8:00 AM, returning at about 5:00 PM. It will be on Saturday, April 15. The trip is to examine an outcrop in an area close to lake Texoma. Mark this date on your calendar now! This trip will form the basis of a lab report that will constitute a big part of your lab grade.

Text:
Levin, Harold L., 1998, *Ancient Invertebrates and Their Living Relatives,* Prentice Hall, pp. 1-358.

Invertebrate Palaeontology and Evolution, Clarkson, E. N. K. eBook ISBN: 0632061472. Publication: Oxford Malden, Mass. Blackwell Science, 1998. Electronic Book Free access from UTD Library.

Clarkson, E.N.K., 1986. Invertebrate Paleontology and Evolution, 2nd ed., Allen & Unwin.
Cowen, R., 2005. History of Life, 3nd ed. Blackwell. Levin, H. J., 1999. Free online

Prothero, D.R., 2004. Bringing Fossils to Life. An Introduction to Paleontology. WCB McGraw-Hill.