

EARTH SCIENCES

Administered by the Department of Physical Sciences within the College of Arts and Sciences.

A Bachelor of Science degree in Earth Sciences is intended to provide a broad background in the physical and biological sciences for students who intend to teach Science at the 4-8 grade level. A degree in Earth Sciences, however, should be of interest to anyone whose career aspirations require a comprehensive knowledge of scientific principles and methodology

Degree Requirements

The total credits required for a B. S. in Earth Sciences are **120**.

General Education

44 credit hours

Students must complete the requirements shown in the General Education Requirements section of this catalog, pages 63-64. In meeting the general education requirements Earth Science majors should include the following:

Mathematics Requirement	MATH 1314 (3) and 2412 (4)
Science Requirement	GEOL 1301/1101 (4) and 1302/1102 (4)

Computer Use

All majors must demonstrate a basic use of computing through completion of COSC 1335 (3).

Science and Mathematics

20 credit hours

BIOL 1306/1106 (4) and 1307/1107 (4)
CHEM 1311/1111 (4) and 1312/1112 (4)
PHYS 1301/1101 (4)

Earth Sciences Core

55 credit hours

Upper level course work (32 credit hours) in the following:

BIOL 3372 (3), 4340 (3)
GEOG 3301 (3), 3302 (3), and 3307 (3)
GEOL 3303/3103 (4), 3318 (3), 3307/3107 (4), and 3329 (3).
NTSC 4301 (3) or NTSC 4311 (3)

Electives: Up to 23 upper level credit hours in BIOL, ENSC, and GEOL

Teacher Preparation and TExES Requirements**

Candidates for TExES tests in 4-8 Science must have completed all the courses required for the Earth Sciences degree.

Minor in Earth Sciences

GEOL 1301/1101 and 1302/1102, totaling 8 sch, are required courses. Ten additional upper level credit hours, totaling a minimum of at least 18 sch, must be earned by selecting courses from one or more of the following disciplines: Biology, Chemistry, Environmental Science, and Geography.

** Consult School of Education advisor.

DEGREE PLAN: BS IN EARTH SCIENCES

GENERAL EDUCATION REQUIREMENTS:

- ___ ___ English Composition, 6 semester credit hours
- ___ Literature, 3 semester credit hours
- ___ ___ U.S. History, 6 credits (2 courses) 1301, 1302
recommended
- ___ ___ U.S. and State Government, 6 credits (2 courses)
2305 & 2306
- ___ Communication, 3 semester credit hours
- ___ Visual and Performing Arts, 3 sch
- ___ Social Science, 3 semester credit hours
- ___ Math (1332 or College Algebra)
- ___ Math 2412

DEPARTMENTAL REQUIREMENTS:

- ___ COSC 1335 Computers and Problem Solving
- ___ NTSC 4301 Environmental Ethics **OR**
NTSC 4311 History & Philosophy of Science

In addition to Geology, 5 semesters of freshman science are required. Two courses must be sequenced. All of the courses must be chosen from the following:

- ___ ___ BIOL 1306/1106; BIOL 1307/1107
- ___ ___ PHYS 1301/1101, 1302/1102
- ___ ___ CHEM 1311/1111, 1312/1112

EARTH SCIENCES CORE COURSES:

- ___ GEOL 1301/1101 Physical Geology
- ___ GEOL 1302/1102 Historical Geology
- ___ GEOG 3302 Geomorphology
- ___ GEOG 3307 Climatology or Meteorology course
- ___ GEOL 3318 Oceanography (or a course in
Limnology, Marine Biology, or Aquatic Biology)
- ___ BIOL 3372 Principles of Ecology
- ___ GEOG 3429 GIS & GPS Applications **OR**
GEOG 3301 Maps & Map Interpretation
- ___ GEOL 3307/3107 Paleontology

NOTES ON GRADUATING:

1. Read the U. T. Permian Basin catalog and be familiar with the University's requirements for the BS degree. **It is the student's responsibility to read the catalog and be familiar with and fulfill all the requirements for the BS degree.**
2. Complete at least **120** semester credit hours for the BS degree in **Earth Sciences**.
3. At least **54** semester credit hours must be at the junior or senior level. At least **30** of these hours must be completed at U. T. Permian Basin.
4. Students majoring in Earth Sciences seeking secondary teacher certification are not required to complete a minor, but must complete a minimum of 24 credits in their second teaching field.
5. Obtain at least a C grade in all General Education, minor and Earth Science courses counting to the minimum course requirements. Maintain at least a grade point average of 2.0 or "C" in all courses applicable toward the BS degree.

Electives:

9 sch in upper level courses in Biology, Chemistry, Geology, or Environmental Science. An Astronomy course is strongly recommended.

MINOR

A minor requires 18 credit hours of which 12 credit hours must be completed at the junior and senior level.

COURSE	GRADE/CREDIT HOURS	COURSE	GRADE/CREDIT HOURS
1. _____		5. _____	
2. _____		6. _____	
3. _____		7. _____	
4. _____		8. _____	