

Bachelor of Science in GEOSCIENCES
GEOPHYSICS Concentration: Math Minor Required
2017-2018 Catalog Year

Students must maintain a 2.5 TTU GPA to remain in the BS in Geosciences.

A grade of C- or better must be earned to meet prerequisite requirements and to apply to major, minor or adjunct. Prerequisites shown in ().

<p>FIRST YEAR Fall -14 hours</p> <p>_____ GEOL 1303 Physical Geology</p> <p>_____ GEOL 1101 Physical Geology Lab</p> <p>_____ MATH 1451 Calculus I (MATH 1321 B or better; SATM 660, MPE code 7 MATH 1550 C or better)</p> <p>_____ CHEM 1307 Principles of Chemistry I (CPE 60 % or higher or CHEM 1301 with a C)</p> <p>_____ CHEM 1107 Principles of Chemistry lab (CPE 60 % or higher or CHEM 1301 with a C)</p> <p>_____ Personal Fitness and Wellness +</p> <p>_____ IS 1100 or LIBR 1100 or 1 hour elective + PFW only required for students under 25 years of age</p>	<p>Spring-15 hours</p> <p>_____ GEOL 2401 Historical Geology (GEOL 1303 +1101 C or better)</p> <p>_____ PHYS 1408 Principles of Physics I (MATH 1451)</p> <p>_____ MATH 1452 Calculus II (MATH 1451)</p> <p>_____ ENGL 1301 Essentials of Col. Rhetoric</p>
<p>SECOND YEAR Fall-15 hours</p> <p>_____ GEOL 3401 Mineralogy and Petrology (2.5 GPA)# (GEOL 1303+1101, 2401; CHEM 1307+1107 C or better)</p> <p>_____ GPH 3300 Geophysics (2.5 GPA)# (MATH 1451, GEOL 1303 +1101 C or better)</p> <p>_____ MATH 2450 Calculus III (MATH 1452)</p> <p>_____ PHYS 2401 Principles of Physics II (PHYS 1408; MATH 1452)</p> <p># GPA is cumulative which includes all college credit at all institutions</p>	<p>Spring-15 hours</p> <p>_____ GCH 3303 Introduction to Geochemistry (CHEM 1307+1107; GEOL 3401, MATH 1452 C or better)</p> <p>_____ STEM Elective (3 hrs)</p> <p>_____ MATH 2360 Linear Algebra (MATH 2450)</p> <p>_____ ENGL 1302 Advanced of Col. Rhetoric</p> <p>_____ Social and Behavioral Sci Elective + Multicultural</p>
<p>THIRD YEAR Fall-16 hours</p> <p>_____ GEOL 3402 Structural Geology (GEOL 3401 PHYS 1403 or 1408 C or better),</p> <p>_____ GPH 4321 Seismic Exploration Methods (GPH 3300, GEOL 3401, PHYS 1403 or 1408, MATH 1452 C or better)</p> <p>_____ GPH 3310 Geophysics Data Processing (GEOL 3401 C or better, GPH 3300, 4321 (may be coreq), MATH 2450 or coreq)</p> <p>_____ MATH 3350 High Math for Sci + Eng (MATH 2450)</p> <p>_____ Oral Com Elective</p>	<p>Spring- 15 hours</p> <p>_____ GEOS Elective 3 hrs Jr/Sr LIST A</p> <p>_____ GPH 4322 Solid Earth Geophysics (GEOL 3402, GPH 4321, 3310)</p> <p>_____ GEOL 4101 Undergraduate Seminar (Senior Standing)</p> <p>_____ MATH Minor elective Jr/Sr</p> <p>_____ POLS 1301 American Govt Org</p> <p>_____ STEM Elective (2 hrs) jr/sr</p>
<p>FORTH YEAR Fall- 15 hours</p> <p>_____ Foreign Language _____ 2301 (F. Lang. 1507 or 1502)</p> <p>_____ GEOS Elective 3 hrs Jr/Sr LIST A</p> <p>_____ HIST 2300 US History Pre 1877</p> <p>_____ English Lit 2000-level (NOT 2311 or 2371)</p> <p>_____ POLS 2306 American Public Policy</p>	<p>Spring- 15 hours</p> <p>_____ GEOL/ATMO 4312 Undergraduate Research (Senior Standing)</p> <p>_____ GEOS/STEM Elective 3 hrs Jr/Sr any LIST</p> <p>_____ GEOS/STEM Elective 3 hrs Jr/Sr any LIST</p> <p>_____ HIST 2301 US History since 1877</p> <p>_____ Creative Arts Elective</p>

Pick 2 from List A; 2 from STEM and 2 from any list:

GEOS electives:

LIST A
 GEOL 4325 Sedimentology and Strat (Fall)
 GEOL 4320 Optical Mineralogy (Spring)
 GEOL 4321 Igneous and Meta Petrography (S)
 GEOL 4361 Advanced Structural Geol (Spring)
 GEOL 4318 Geology of Texas (Spring)
 GEOL 4370 Hydrogeology (Spring)
 GCH 4308 Mineral Sciences (Spring even)

LIST B

ATMO 3301 General Meteorology
 GEOL 3301 Geomorphology (Fall)
 GEOL 4306 Intro to Petroleum Systems (Fall)
 GIST 3300 Geographic Information Systems

GEOL 3323 Environmental Geology (Fall)
 GEOL 4300 Petrophysics (fall)
 GEOL 4310 Planetary Geology (Spring)
 GEOL 4331 Digital Imagery (Spring)
 GEOL 4351 Spectroscopy & Classification (Fall)

STEM electives:

GPH 4323 Potential Field Methods (Spring odd)
 GPH 4300 Geophysics xlisted GR course
 GCH 4405 Inorganic Geochemistry (Fall)
 PHYS 2305 Computation for Phy Sciences (Fall)
 PHYS 3305 Electricity and Magnetism I (Fall)
 PHYS 3306 Electricity and Magnetism II (Spring)
 PHYS 3401 Optics (Fall only)

PHYS 4304 Mechanics (Spring)
 MATH 3342 Statistics for Sci and Engineers I OR
 MATH 4342 Mathematical Statistics
 MATH 4343 Mathematical Statistics
 MATH 3351 Math for Sci and Engineers II
 MATH 4310 Numerical Analysis I (S odd)
 MATH 4312 Numerical Analysis I
 MATH 4330 Mathematical Computing (S odd)
 CE 2301 Statics (or ME 2301)
 CE 3303 Mechanics of Solids (or ME 3403)
 CE 3305 Mechanics of Fluids (or ME 3370)
 CE 3302 Dynamics