

Bachelor of Science in Geosciences
Geophysics Concentration: Math Minor Required
2014-2015 Catalog Year

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

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| <p>FIRST YEAR Fall-15 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>_____ ENGL 1301 Essentials. of Col. Rhetoric</p> | <p><i>Spring-16 hours</i></p> <p>_____ GEOL 2401 Historical Geology (GEOL 1303 +1101)</p> <p>_____ PHYS 1408 Principles of Physics (MATH 1451)</p> <p>_____ MATH 1452 Calculus II (MATH 1451)</p> <p>_____ ENGL 1302 (ENG 1301)</p> <p>_____ Personal Fitness and Wellness</p> |
| <p>SECOND YEAR Fall-15 hours</p> <p>_____ GEOL 3401 Mineralogy and Petrology (GEOL 1303+1101, 2401; CHEM 1307+1107, 1308+1108)</p> <p>_____ GPH 3300 Geophysics (MATH 1451, GEOL 1303 +1101)</p> <p>_____ MATH 2450 Calculus III (MATH 1452)</p> <p>_____ PHYS 2401 Principles of Physics II (PHYS 1408; MATH 1452)</p> | <p><i>Spring-15 hours</i></p> <p>_____ GCH 3303 Introduction to Geochemistry (CHEM 1307+1107; 1308 +1108; GEOL 3401, MATH 1452)</p> <p>_____ GPH 4323 Potential Field Methods (GEOL 3401; GPH 3300; PHYS 1404 or 2401, MATH 2450)</p> <p>_____ MATH 2360 Linear Algebra (MATH 2450)</p> <p>_____ Oral Com Elective</p> <p>_____ Social and Behavioral Sciences Elective *multicultural</p> |
| <p>THIRD YEAR Fall-14 hours</p> <p>_____ GEOL 3402 Structural Geology (GEOL 3401 PHYS 1403 or 1408),</p> <p>_____ GPH 4321 Seismic Exploration Methods (GEOL 3401 PHYS 1403 or 1408, MATH 1452)</p> <p>_____ GPH 3310 Geophysics Data Processing (GEOL 3401, GPH 3300, 4321 (may be coreq), MATH 2360)</p> <p>_____ MATH 3350 High Math for Sci + Eng (MATH 2450)</p> <p>_____ Personal Fitness and Wellness</p> | <p><i>Spring- 15 hours</i></p> <p>_____ GEOS Elective Jr/Sr (3 hrs)</p> <p>_____ STEM Elective (3 hrs)</p> <p>_____ HIST 2300 US History Pre 1877</p> <p>_____ English Literature (ENGL 1302)</p> <p>_____ Foreign Language _____ 2301 (F. Lang. 1507 or 1502)</p> |
| <p>FORTH YEAR Fall- 16 hours</p> <p>_____ GEOL 4101 Undergraduate Seminar (Senior Standing)</p> <p>_____ STEM Elective Jr/Sr (3 hrs)</p> <p>_____ MATH Minor elective Jr/Sr</p> <p>_____ Foreign Language _____ 2301 (F. Lang 2302)</p> <p>_____ English Literature (ENGL 1302)</p> <p>_____ POLS 1301 American Govt Org</p> | <p><i>Spring- 14 hours</i></p> <p>_____ GEOL/ATMO 4312 Undergraduate Research (Senior Standing)</p> <p>_____ GEOS Elective Jr/Sr (2 hrs)</p> <p>_____ HIST 2301 US History since 1877</p> <p>_____ Creative Arts Elective</p> <p>_____ POLS 2302 American Govt Org</p> |

Major Electives and minors:

* **GEOS elective:** GEOL 3301 Geomorphology, GEOL 4001 Problems in GEOS, GEOL 4201 Sed Field Methods, GEOL 4318 Geology of Texas, GEOL 4320 Optical Mineralogy, GEOL 4321 Igneous and Metamorphic Petrology, GEOL 4325 Sedimentology and Stratigraphy, GEOL 4361 Advanced Structural Geology , GEOL 4362 Tectonics, GEOL 4300 Petrophysics, GEOL 4300 Intro to Petroleum Systems, GCH 4308 Mineral Sciences

* **STEM electives:** ATMO 3301 General Meteorology, GCH 4405 Inorganic Geochemistry, PHYS 3401 Optics, 3305 /3306 Electricity and Magnetism, 4304 Mechanics, MATH 3342 Statistics for Scientists and Engineers I, MATH 3351 Math for Scientists and Engineers II, MATH 4310 Numerical Analysis I, MATH 4312 Numerical Analysis II, MATH 4330 Mathematical Computing, any 3000 or 4000 level MATH course , CE 2301 Statics, CE 3303 Mechanics of Solids, 3305 Mechanics of Fluids, CE 3302 Dynamics