

GEOLOGY CONCENTRATION (B.S. Geosciences)

__ **General Education** (see TBR Common Core): 41 Credit Hours

__ **University-Wide Freshman Seminar Requirement** (APSU 1000): 1 Credit Hour

Geosciences Core (19)

__ GEOG 1015 Physical Geography (3)

__ GEOL 1040/1041 Physical Geology (and lab) (4)

__ GEOG 3150/3151 Geographic Information Systems I (and lab) (4) [Prerequisite: MATH 1530 or higher with a grade of "C" or higher, CSCI 1017, or GEOL 3060/3061, or GEOG 3060/3061]

__ GEOL 3060/3061 Statistics in the Geosciences (and lab) (4) [Prerequisite: GEOL 1040/1041 or (GEOG 1010 and MATH 1530 or higher); or permission of instructor]

__ CHEM 1110/1111 General Chemistry (and lab) (4) [Prerequisite: Math 1730, or higher, with a grade of with C or better]

Geology Core (39)

__ GEOL 1050/1051 Historical Geology (and lab) (4)

__ GEOL 3100/3101 Stratigraphy and Sedimentation (and lab) (4) [Prerequisite: GEOL 1040/1041; GEOL 1050/1051]

__ GEOL 3500/3501 Mineralogy (and lab) (4) [Prerequisite: GEOL 1040/1041]

__ GEOL 3600/3601 Petrology (and lab) (4) [Prerequisite: GEOL 3500/3501]

__ GEOL 4080/4081 Structural Geology (and lab) (4) [Prerequisite: Math 1730, or higher, with a grade of with C or better] #

__ GEOL 4082 Structure Field Practicum (1) [Corequisite: GEOL 4080/4081] #

__ GEOL 4250/4251 Hydrogeology (and lab) (4) [Prerequisite: Math 1730, or higher, with a grade of with C or better]

__ GEOL 4910/4911 Invertebrate Paleontology (and lab) (4) [Prerequisite: GEOL 1040/1041]

__ GEOL 4995 Seminar in Geosciences Communication (2) # [Prerequisite: 12 credits of GEOL 3000-4000 courses]

__ MATH 1730 Precalculus (4) #

__ CHEM 1120/1121 General Chemistry II (and lab) (4) #

Electives (10)

Select 10 credit hours from the courses listed below:

__ GEOL 3030/3031 Environmental Geology (and lab) (4) [Prerequisite: GEOL 1040/1041]

__ GEOL 3680 Principles of Geochemistry (3) #

__ GEOL 4050 Process Geomorphology (4) # [Prerequisite: GEOL 1040/1041]

__ GEOL 4252 Environmental Geology Field Methods (2) # [Prereq.: GEOL 4250 or 3030 with C or better, or permission of instructor]

__ GEOL 4450 Economic Geology (4) #

__ GEOL 4920 Advanced Paleontology (3) [Prerequisite: GEOL 4910/4911]

__ GEOL 4990 Field Geology * (6) #

__ GEOL 4500 Laboratory Research Project (1- 3 units, course may be repeated, but only 3 units can be applied to electives category) #

__ GEOL 4550 Advanced Topics in Geology (1-4 units) #

__ MATH 1910 Calculus and Analytic Geometry* (4) #

Allied Sciences (8)

Choose TWO courses (8 credit hours) below:

__ BIOL 1110/1111 General Biology I (and lab) (4) #

__ PHYS 2010/2011 College Physics I (and lab) * (4) # [Prerequisite: Math 1730]

__ PHYS 2020/2021 College Physics II (and lab) * (4) #

__ PHYS 2110/2111 University Physics (and lab) * (4) #

__ PHYS 2120/2121 University Physics (and lab) * (4) #

***NOTE: These courses are recommended. # Please see the University Bulletin for prerequisites for these courses.**

NOTE: Students planning to attend graduate school in the geological sciences should select the following electives:

__ GEOL 4990 Field Geology (6) __ MATH 1910 Calculus and Analytic Geometry (4) __ MATH 1920 Calculus and Analytic Geometry (5)

__ PHYS 2010/2011 College Physics (and lab) (4) __ PHYS 2020/2021 College Physics (and lab) (or higher physics course) (4)

Program Total (107)

Note: A total of 120 credit hours are needed to complete a B.S. degree. Please consult with your advisor for courses needed to complete the remaining 13 credit hours of this concentration. (checklist valid for 2020-2021 Catalog)