

BACHELOR OF SCIENCE IN GEOSCIENCE WITH AN EMPHASIS IN GEOPHYSICS

REQUIRED CORE COURSES:

Course	Title	Credits	Prerequisites	Offered	Taking When
GEO 1110	INTRO TO EARTH SYSTEMS	3	N/A	FALL/SPRING	
GEO 1115	INTRO TO EARTH SYSTEMS LAB	1	N/A	FALL/SPRING	
GEO 3010	GEOPHYSICS (QI)	3	MATH 1220, GEO 3080, PHYS 2220	SPRING	
GEO 3060	STRUCTURAL GEOLOGY AND TECTONICS	3	GEO 1110, MATH 1060	FALL/SPRING	
GEO 3080	EARTH MATERIALS I (QI)	4	CHEM 1210	FALL/SPRING	
GEO 3090	EARTH MATERIALS II	3	GEO 1110, 3080, MATH 1210	FALL/SPRING	
GEO 4500	FIELD METHODS (CW)	3	GEO 1110, 3060, 3080, 3090, 5760	SPRING	
GEO 4510	FIELD GEOLOGY (1 st half)	2	GEO 4500	SUMMER	
GEO 4520	FIELD GEOLOGY (2 nd half)	2	GEO 4500 & 4510		
GEO 5760	STRATIGRAPHY AND SEDIMENTARY PROCESSES	4	GEO 3090, 3060	FALL	

REQUIRED COURSES: COMPLETE 11 CREDITS IN THE FOLLOWING 4 AREAS (1 COURSE IN EACH AREA)

SEISMOLOGY

Course	Title	Credits	Prerequisites	Offered	Taking When
GEO 5210	SEISMOLOGY I: TECTONOPHYSICS AND ELASTIC WAVES	3	GEO 3010 AND MATH 2210	FALL	
GEO 5220	SEISMOLOGY II: SEISMIC IMAGING	3	GEO 5210	SPRING	

PHYSICAL FIELDS

Course	Title	Credits	Prerequisites	Offered	Taking When
GEO 5240	PHYSICAL FIELDS II: Electromagnetic Methods	3	PHYS 2220	Spring	

GEOPHYSICS

Course	Title	Credits	Prerequisites	Offered	Taking When
GEO 5250	INVERSION THEORY AND APPLICATIONS	3	PHYS 2220	FALL	
GEO 5310	HEAT AND FLUIDS	3	PHYS 2220	CHECK CATALOG	
GEO 5320	SIGNAL AND IMAGE PROCESSING IN THE GEOSCIENCES	3	EXPERIENCE WITH LINEAR ALGEBRA	SPRING	

ADDITIONAL: COMPLETE 1 COURSE

Course	Title	Credits	Prerequisites	Offered	Taking When
MATH 5600 OR GEO 5560	SURVEY OF NUMERICAL ANALYSIS OR NUMERICAL METHODS IN THE GEOSCIENCES	3 OR 4	MATH 2210 OR 1260 OR 1280 OR 1321 OR 3140 OR 2270 OR 2250	SUMMER OR FALL ODD YEARS	

ALLIED SCIENCES COMPLETE 8 COURSES

Course	Title	Credits	Prerequisites	Offered	Taking When
CHEM 1210	GENERAL CHEMISTRY I	4	CHEM 1200 OR MATH 1050, 1080, 1210, 1220, 1250, 1260, 1310, 1320	ALL	
MATH 1210	CALCULUS I	4	MATH 1050 AND 1060 OR 1080	ALL	
MATH 1220	CALCULUS II	4	MATH 1210 OR 1250 OR 1270 OR 1311 OR 1310	ALL	
MATH 2210	CALCULUS III	3	MATH 1220 OR 1250 OR 1320	ALL	
MATH 2250	DIFFERENTIAL EQUATIONS AND LINEAR ALEGBRA	4	MATH 2210 OR 1260 OR 1280 OR 1321 OR 1320 OR 1220 OR 1250 OR 1270 OR 1311 AND PHYS 2210 OR 3210	ALL	
MET E 3070 OR MATH 3070	STATISTICAL METHODS IN EARTH SCIENCES AN ENGINEERING (3 CREDITS) OR APPLIED STATISTICS (4 CREDITS)	3 OR 4	RECOMMENDED MATH 1050 OR MATH 1220 OR 1250 OR 1270 OR 1311 OR 1320	FALL OR ALL	
PHYS 2210	PHYSICS FOR SCIENTISTS AND ENGINEERS I	4	MATH 1210	ALL	
PHYS 2220	PHYSICS FOR SCIENTISTS AND ENGINEERS II	4	PHYS 2210, MATH 1210	ALL	

COMPLETE 12 DEGREE PROGRAM ELECTIVE CREDIT HOURS: ANY UPPER DIVISION COURSE IN THE COLLEGE OF MINES AND EARTH SCIENCES, SCIENCE, OR ENGINEERING, OR OTHER UPPER DIVISION BY APPROVAL

Course	Title	Credits	Prerequisites	Offered	Taking When

Academic Advisor

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