Geophysics Major Requirements (81)

Foundation Courses

- ☐ CHEM 101 - Introductory University Chemistry I
- ☐ CHEM 102 - Introductory University Chemistry II
- ☐ EAS 105 - The Dynamic Earth Through Time
- ☐ GEOPH 110 - Introduction to Earth and Planetary Physics (See Note 1)
- ☐ MATH 144 - Calculus for the Mathematical and Physical Sciences I
- ☐ MATH 146 - Calculus for the Mathematical and Physical Sciences II
- ☐ PHYS 144 - Newtonian Mechanics
- ☐ PHYS 181 - Relativity, Electricity and Magnetism

_____ **3 units from:**
MATH 125 - Linear Algebra I
MATH 127 - Honors Linear Algebra I

Senior Courses

- ☐ EAS 222 - Stratigraphy and Sedimentation
- ☐ EAS 233 - Geologic Structures
- ☐ GEOPH 325 - Geophysical Imaging of Earth's Interior
- ☐ GEOPH 326 - Seismic Imaging of Earth's Interior
- ☐ GEOPH 424 - Electromagnetic Methods in Geophysics
- ☐ GEOPH 426 - Signal Analysis in Geophysics
- ☐ GEOPH 436 - Geophysics Field School
- ☐ GEOPH 438 - Seismic Data Processing
- ☐ MA PH 251 - Differential Equations for Physics (see Note 2)
- ☐ MA PH 351 - Mathematical Methods for Physics I (see Note 3)
- ☐ MATH 214 - Calculus III
- ☐ PHYS 234 - Introductory Computational Physics
- ☐ PHYS 244 - Classical Mechanics I
- ☐ PHYS 381 - Electromagnetic Theory I

_____ **3 units from:**
MATH 225 - Linear Algebra II
MATH 227 - Honors Linear Algebra II

3 units from:

EAS 209	EAS 320	GEOPH 421	PHYS 308
EAS 221	EAS 323	GEOPH 440	PHYS 499
EAS 224	GEOPH 332	PHYS 271	

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9 units from:

AREC 313	CIV E 381	EAS 221	EAS 324	ECE 209	MIN E 295	PHYS 308	PHYS 481
AREC 365	CMPUT 267	EAS 224	EAS 421	GEOPH 332	MIN E 323	PHYS 310	PHYS 499
ASTRO 429	CMPUT 466	EAS 270	EAS 422	GEOPH 421	PET E 365	PHYS 362	STAT 151
CH E 243	CMPUT 481	EAS 320	EAS 425	GEOPH 431	PHYS 261	PHYS 420	STAT 161
CIV E 250	EAS 209	EAS 323	EAS 456	GEOPH 440	PHYS 271	PHYS 467	

Notes:

1. Students entering the Major in Geophysics program after first year may take GEOPH 210 in lieu of GEOPH 110. However, students will not receive credit for both GEOPH 110 and GEOPH 210.
2. This requirement may also be fulfilled by completing both MATH 334 and MATH 337.
3. This requirement may also be fulfilled by completing both MATH 315 and MATH 311.
4. Not all 200-, 300- and 400-level Physics courses are offered every year so students should plan accordingly.
5. Students without a background in computer programming are strongly encouraged to take CMPUT 174 as one of their Science Options in their first year.
6. Students in Geophysics will not have the formal prerequisites for many of the AREC, CH E, CIV E, CMPUT, EAS, ECE, MIN E, and PET E courses, and must request permission to register in those courses from the department offering the particular course.
7. To fulfill the knowledge requirements for registration as a professional geoscientist (P. Geo.) through APEGA (Association of Professional Engineers and Geoscientists of Alberta), meet with an Geophysics program advisor to discuss appropriate course selections. Current syllabus and registration information is available from the Department of Physics or APEGA. Full information is available at www.apega.ca.

- ☐ COMM
- ☐ COMM
- ☐ IND
- ☐ BO___
- ☐ BO___
- ☐ BSBS
- ☐ BSFS
- ☐ BSSS
- ☐ LAB

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