Geology & Geophysics Course Requirements
(*for UG with 1st semester starting at or after Fall, 2009*)
B.S. in Geology Program

The Bachelor of Science in Geology & Geophysics (GG) is designed for those who intend to become professional geologists and/or those who plan to attend a graduate school in geosciences. The program includes courses usually expected of graduate school applicants, including a geology field course (summer) and courses in related sciences and mathematics. This degree program prepares students for the examination for the professional geologist license.

I. Geology Core Courses

One of the following:	**Prerequisites**	**Credit Hours**	**USP**	**Taught**
GEOL 1005 Earth History, OR	-	4	S	Spring
GEOL 1100 Physical Geology, OR	-	4	SE	Fall, Spring
GEOL 1200 Historical Geology	-	4	SE	Fall
GEOL 1500 Water, Dirt, and Climate	-	4		Spring
And, each of the following (all required):	**Prerequisites**[*a]	**Credit Hours**	**USP**	**Taught**
GEOL 2000 Geochemical Cycles & Earth System	CHEM 1020[*b]	4	SE	Fall
GEOL 2005 Introduction to Geophysics	Algebra; Trigonometry	4	-	Spring
GEOL 2010 Mineralogy	GEOL 1005, 1100, or 1200; CHEM 1020 or concurrent enrollment	3	-	Fall
Geol 2020 Introduction to Petrology	Geol 2010	2	-	Spring
GEOL 2100 Stratigraphy & Sedimentation	GEOL 1100 (Physical Geology)	4	-	Fall
GEOL 4610 Structural Geology & Tectonics	GEOL 2100	4	-	Fall
GEOL 4717 Field Course in Geology[*c]	GEOL 4610	6	-	Summer
GEOL 4820 Capstone	After 26 credits of GG courses have been taken	3	WC	Spring

*a If a student wishes to enroll in a class in which they don't have the pre-reqs, they should talk to the instructor for consent. All classes listed as Prerequisites need to be taken *before* the relevant course.
*b CHEM 1020 can be taken concurrently with GEOL 2000.
*c To be taken in 1 of the last 2 summers on campus.

Required: 15 Credit hours in GEOL 2000-level and above, selected from below:	**Prerequisites**	**Credit Hours**	**USP**	**Taught**

GEOL 2050 Principles of paleontology	1000-level GG courses	3	-	Spring
GEOL 4444 Geohydrology	MATH 2200; MATH 2205	4	-	Spring
GEOL 4490 Geochemistry	GEOL2010; CHEM 1020; MATH 2205	3	-	Spring
GEOL 4880 Earth Surface Processes	MATH 2205+2210 (preferred); PHYS 1110 or 1210	3	-	Fall
GEOL 4835 Applied/Expl Geophysics	PHYS 1110 or higher; MATH 2210	3		Spring
Students can take GG classes other than the above 5 listed, e.g., GG courses such as GEOL 4835 (Applied/Exploration Geophysics), GEOL 4030 (Groundwater Flow & Transport Modeling), GEOL 4190 (Petroleum Geology). To check for GG courses & their pre-req: http://uwadmnweb.uwyo.edu/REGISTRAR/bulletin/geol.html				

II. Allied math & Sciences (20 Credits all Required)

Courses	**Credit Hours**	**USP**	**Taught**
CHEM 1020*a, or 1050*b (General Chemistry I)	4	SP	One semester
CHEM 1030*a or 1060*b (General Chemistry II)	4	SP	One semester
MATH 2200 (Calculus I)	4	QB	One semester
MATH 2205 (Calculus II)	4	-	One semester
PHYS 1110 or 1210*c (General or Engineering Physics)	4	SP	One semester

*a CHEM 1020, 1030 for normal requirement
*b CHEM 1050, 1060 for advances engineering majors who may have transferred to GG
*c PHYS1210 requires a MATH 2200 prerequisite with grade of 2.0 or higher

Note: This degree program represents a minimum proficiency. Students are strongly advised to elect additional courses from Geology, Math and other science departments.

Additional Information:

1. **Athletes** must take the same required courses in addition to athletic requirements.
2. For all required courses, a grade of "C" (2.0), or better is needed to satisfy the requirements of the B.S. in Geology Degree.
3. Any grade lower than "C" will require that the class be re-taken. Thus, advanced courses which has the said class as a pre-requisite will not be taken and will be pushed back for future semesters.
4. More than just the basics: For students with good math skills, the following courses are strongly recommended:
   Calculus III (Math 2210); Statistics I (STAT 2050); Differential Equations I (Math 2310); Differential Equations II (Math 3310)

Academic or government jobs in quantitative geophysics & geo-hydrology usually would like to have additional math or statistics skills.

USP Requirement:
http://uwadmnweb.uwyo.edu/unst/usp2003.asp
USP Helpline: 64287

A&S Requirement:
http://uwadmnweb.uwyo.edu/registrar/bulletin/2asfront.html
A&S Helpline: 62641