



**2007 – 08 PETITION/PROGRAM SHEET**  
**Degree: Bachelor of Science**  
**Major: Physical Sciences**  
**Concentration: Geology**  
[www.mesastate.edu/schools/snsn/geology/](http://www.mesastate.edu/schools/snsn/geology/)

**About This Major . . .**

The Bachelor of Science degree with a concentration in geology is designed for students who: (1) desire a strong liberal arts education with emphasis on the earth sciences, (2) wish to pursue a graduate degree in geology, or (3) desire a professional or technical geo-science career. The degree program in geology is robust. Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists. Instruction takes place in a state-of-the-art science complex, which houses several instructional laboratories, a projects room, computer-applications laboratory, class preparation room, petrology-mineralogy laboratory, rock-storage facilities, and a sample preparation room. Most classes have a strong field component so that students can enjoy the diverse geological setting of the Grand Junction area. The program is supported by five tenure-track faculty members, plus four instructors. Equipment available includes research petrographic microscopes, binocular microscopes, a computer-assisted x-ray diffractometer, several scanning-electron microscopes (available through the Biology Department), GPS units, short-period and long-period seismometers, and a magnetometer. Computer facilities include modern PC systems with software basics for communications, database management, word-processing, and also includes software for geographical information systems (GIS), and geostatistics.

**POLICIES:**

1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the MSC Catalog for a complete list of graduation requirements.
2. You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.**
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.**
4. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you will be required to take a Major Field Achievement Test (exit exam).

**NAME:** \_\_\_\_\_ **STUDENT ID #** \_\_\_\_\_

**LOCAL ADDRESS AND PHONE NUMBER:** \_\_\_\_\_

\_\_\_\_\_ ( ) \_\_\_\_\_

I, (Signature) \_\_\_\_\_, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

\_\_\_\_\_  
Signature of Advisor \_\_\_\_\_ Date \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Signature of Department Head \_\_\_\_\_ Date \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Signature of Registrar \_\_\_\_\_ Date \_\_\_\_\_ 20\_\_\_\_

**Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.**

**Degree Requirements:**

- Must earn 120 semester hours total and meet the academic residency requirements to earn a baccalaureate degree at Mesa State College.
- 40 upper division credits (i.e., 300-level and 400-level courses).
- 2.00 cumulative GPA or higher in all MSC coursework
- A “C” or higher is required in all major courses.
- Excess KINA courses beyond the two required and pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head. Courses related to teacher licensure must also be approved by the Teacher Education Dept.
- When filling out the program sheet a course can be used only once.
- See the “Undergraduate Graduation Requirements” in the Mesa State College catalog for additional graduation information.

**GENERAL EDUCATION REQUIREMENTS (31 Semester Hours)**

See the current Mesa State College catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

Course No	Title	Sem.hrs	Grade	Term/Trns
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**English** (6 semester hours, must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.)

ENGL 111 English Composition	3	_____	_____	_____
ENGL 112 English Composition	3	_____	_____	_____

(ENGL 129, Honors English, may be substituted for ENGL 111 & ENGL 112.)

**Math:** (3 semester hours, must receive a grade of “C” or better, must be completed by the time the student has 60 semester hours.)

MATH 151 Calculus I	5*	_____	_____	_____
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\*3 credits apply to the General Ed requirements and 2 credits apply to elective credit

**Humanities** (3 semester hours)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**Natural Sciences** (7 semester hours, one course must include a lab)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	L _____	_____	_____	_____

**History** (3 semester hours)

HIST _____	_____	_____	_____	_____
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**Fine Arts** (3 semester hours)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Course No	Title	Sem.hrs	Grade	Term/Trns
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**OTHER LOWER DIVISION REQUIREMENTS**

**Kinesiology** (3 semester hours)

Students must take KINE 100, plus two 100-level KINA/HPWE or approved DANC course.

KINE 100 Health and Wellness	1	_____	_____	_____
KINA 1 _____	1	_____	_____	_____
KINA 1 _____	1	_____	_____	_____

**Applied Studies** (3 semester hours)

_____	_____	_____	_____	_____
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**BACHELOR OF SCIENCE DEGREE DISTINCTION REQUIREMENTS** (6 semester hours) Must receive a grade of “C” or better.

STAT 200 Probability and Statistics	3	_____	_____	_____
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**Humanities or Social/Behavioral Sciences:** (3 semester hours)

_____	_____	_____	_____	_____
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**PHYSICAL SCIENCES – GEOLOGY MAJOR REQUIREMENTS**

(61 semester hours) A “C” or higher is required in all major courses.

**Core Classes**

GEOLOGY 111/111L or GEOLOGY 113/113L \*

*GEOLOGY _____	3	_____	_____	_____
*GEOLOGY _____L	1	_____	_____	_____

\* Either GEOLOGY 111/111L or GEOLOGY 113/113L may be taken for credit, but not both.

GEOLOGY 112 Principles of Historical Geology	3	_____	_____	_____
GEOLOGY 112L Principles of Historical Geology Lab	1	_____	_____	_____
GEOLOGY 202 Introduction to Field Studies	3	_____	_____	_____
GEOLOGY 204 Computer Applications in Geology	3	_____	_____	_____
GEOLOGY 301 Structural Geology	3	_____	_____	_____
GEOLOGY 301L Structural Geology Lab	1	_____	_____	_____
GEOLOGY 331 Crystallography & Mineralogy	3	_____	_____	_____
GEOLOGY 331L Crystallography & Mineralogy Lab	1	_____	_____	_____
GEOLOGY 340 Igneous & Metamorphic Petrology	3	_____	_____	_____
GEOLOGY 340L Igneous & Metamorphic Petrology Lab	1	_____	_____	_____
GEOLOGY 402 Applications of Geomorphology	3	_____	_____	_____
GEOLOGY 402L Applications of Geomorphology Lab	1	_____	_____	_____
GEOLOGY 404 Geophysics	3	_____	_____	_____
GEOLOGY 404L Geophysics Lab	1	_____	_____	_____
GEOLOGY 444 Stratigraphy and Sedimentation	3	_____	_____	_____
GEOLOGY 444L Stratigraphy and Sedimentation Lab	1	_____	_____	_____
GEOLOGY 480 Summer Field Camp	6	_____	_____	_____
GEOLOGY 490 Seminar	3	_____	_____	_____
BIOL 102 General Organismal Biology	3	_____	_____	_____
BIOL 102L General Organismal Biology Lab	1	_____	_____	_____
CHEM 131 General Chemistry	4	_____	_____	_____
CHEM 131L General Chemistry Lab	1	_____	_____	_____
PHYS 111/111L or PHYS 131/131L				
PHYS _____	4	_____	_____	_____
PHYS _____L	1	_____	_____	_____

Course No Title Sem.hrs Grade Term/Trns

**Restricted Electives** (8 semester hours; 7 upper division hours may be needed)

Choose from GEOL 325, GEOL 355, GEOL 359, GEOL 361, GEOL 411, GEOL 411L, GEOL 415, GEOL 415L, GEOL 455, GEOL 497, ENVS 312, ENVS 312L, CHEM 132, CHEM 132L, MATH 152, STAT 311, \*PHYS 112/112L or \*PHYS 132/132L

Course No	Title	Sem.hrs	Grade	Term/Trns
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\*Either PHYS 112/112L or PHYS 132/132L may be taken for credit, but not both.

Course No Title Sem.hrs Grade Term/Trns

**Electives** (All college level courses appearing on your final transcript, **not listed above** that will bring your total semester hours to 120 hours. Excludes KINA activity courses.) (8 semester hours; 6 upper division hours may be needed.)

Course No	Title	Sem.hrs	Grade	Term/Trns
*MATH 151	Calculus I	2	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

## SUGGESTED COURSE SEQUENCING FOR A MAJOR IN PHYSICAL SCIENCE – GEOLOGY

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student's responsibility to meet with their advisor and check the 2 year course matrix on the Mesa State website for course availability.

### FRESHMAN YEAR

Fall Semester	Hours	Spring Semester	Hours
GEOL 111* Principles of Physical Geology <b>and</b>	3	GEOL 112 Principles of Historical Geology	3
GEOL 111L* Principles of Physical Geology Lab <b>OR</b>	1	GEOL 112L Principles of Historical Geology Lab	1
GEOL 113* Fld. Based Intro to Phys Geology <b>and</b>	3	ENGL 112 English Composition	3
GEOL 113L* Fld. Based Intro to Phys Geology Lab	1	General Education Humanities	3
ENGL 111 English Composition	3	General Education Social/Behavioral Science	3
MATH 151 Calculus I	5	KINE Activity (2 courses)	<u>2</u>
General Education History	<u>3</u>		15
	15		

### SOPHOMORE YEAR

Fall Semester	Hours	Spring Semester	Hours
GEOL 202 Intro to Field Studies	3	GEOL 204 Computer Applications in Geology	3
CHEM 131 General Chemistry	4	BIOL 102 Gen. Organisms Biology	3
CHEM 131L General Chemistry Lab	1	BIOL 102L Gen. Organisms Biology Lab	1
PHYS 111** General Physics <b>and</b>	4	STAT 200 Probability and Statistics	3
PHYS 111L** General Physics Lab <b>OR</b>	1	General Education Natural Science	3
PHYS 131** Fundamental Mechanics <b>and</b>	4	General Education Fine Arts	<u>3</u>
PHYS 131L** Fundamental Mechanics Lab	1		16
General Education Social/Behavioral Science	3		
KINE 100 Health and Wellness	<u>1</u>		
	17		

### JUNIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
GEOL 301 Structural Geology	3	GEOL 340 Igneous & Metamorphic Petrology	3
GEOL 301L Structural Geology Lab	1	GEOL 340L Igneous & Metamorphic Petrology Lab	1
GEOL 331 Crystallography & Mineralogy	3	General Education Social/Behavioral Science or Humanities	3
GEOL 331L Crystallography & Mineralogy Lab	1	Electives	<u>6-7</u>
General Education Natural Science with Lab	3-4		13-14
General Education Applied Studies	<u>3</u>		
	14-15		

### SENIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
GEOL 402 Applications of Geomorphology	3	GEOL 404 Geophysics	3
GEOL 402L Applications of Geomorphology	1	GEOL 404L Geophysics Lab	1
Restricted Electives	<u>8</u>	GEOL 444 Stratigraphy & Sedimentation	3
	12	GEOL 444L Stratigraphy & Sedimentation Lab	1
		GEOL 490 Seminar	<u>3</u>
			11
		Summer Semester	Hours
		GEOL 480 Summer Field Camp	6

\* Either GEOL 111/111L or GEOL 113/113L may be taken for credit, but not both.

\*\*Either PHYS 111/111L or PHYS 131/131L may be taken for credit, but not both.