2007 – 08 PETITION/PROGRAM SHEET
Degree: Bachelor of Science
Major: Environmental Science and Technology
Concentration: Environmental Restoration and Waste Management
www.mesastate.edu/schools/snsm/environsc/

About This Major . . .

Our goal is to educate students in the science, protection, and restoration of our natural resources—air, water, land, and ecosystems. Our students develop a solid foundation in biology, chemistry, geology, mathematics, statistics, and communication skills, then apply this knowledge to the study and solution of environmental problems. We balance theory with hands-on practice, and include considerable work outdoors in our spectacular local environment. Individual and group projects are a key part of our courses. We also have students taking part in work done through partnerships with organizations such as the Colorado National Monument and the Colorado Division of Minerals and Geology. Students pursuing this degree must select one of the following three concentrations: Environmental Restoration and Waste Management; Environmental Science; and Environmental Science Education.

The Environmental Restoration and Waste Management concentration focuses on the problem of pollutants in the environment. Students learn the science and technology of how to assess and clean up contaminated sites. Students also learn how to prevent pollution through proper management of air emissions, wastewater discharges, and hazardous wastes.

Over the 15 year history of this program, graduates have an outstanding record (>90%) of landing positions in the environmental profession. Graduates from this concentration obtain work with consulting firms specializing in the investigation and cleanup of hazardous waste sites; as environmental specialists in industry, ensuring that air emissions, wastewater discharges and hazardous wastes comply with government regulations; and as environmental specialists with regulatory agencies.

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.

_____ _____ 20_____
Signature of Advisor Date

_____ _____ 20_____
Signature of Department Head Date

_____ _____ 20_____
Signature of Registrar Date

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 courses listed as major requirements.
- 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
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*		
*3 credits apply to the General Ed requirements and 2 credits apply to elective credit					
Humanities (3 semester hours)					
Social and Behavioral Sciences (6 semester hours)					
Natural Sciences (7 semester hours, one course must include a lab)					
	L				
History (3 semester hours)					
HIST					
Fine Arts (3 semester hours)					

OTHER LOWER DIVISION REQUIREMENTS

Kinesiology (3 semester hours)				
KINE 100	Health and Wellness	1		
KINA 1		1		
KINA 1		1		
Applied Studies (3 semester hours)				

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

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

ENVIRONMENTAL SCIENCE AND TECHNOLOGY – ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT MAJOR REQUIREMENTS
(65-67 semester hours) A "C" or higher is required in all courses listed as major requirements.

Core Classes

ENVS 110	Environmental Science & Technology I	3		
ENVS 200	Field Methods in Environmental Science	1		
ENVS 200L	Field Methods in Environmental Science Lab	1		
ENVS 212	Environmental Health & Safety	2		
ENVS 212L	Environmental Health & Safety Lab	1		
ENVS 221	Science & Technology of Pollution Control	3		
ENVS 301	Environmental Project Management	2		
ENVS 313	Characterization of Contaminated Sites	3		
ENVS 313L	Characterization of Contaminated Sites Lab	1		
ENVS 331	Water Quality	3		
ENVS 331L	Water Quality Lab	1		
ENVS 340	Air Quality & Pollution Control	3		
ENVS 410	Environmental Regulatory Compliance	3		
ENVS 420	Advanced Environmental Sampling & Analytical Methods	3		
ENVS 420L	Advanced Environmental Sampling & Analytical Methods Lab	1		
ENVS 492	Capstone in Environmental Science & Technology	2		
ENVS 499	Internship	4		

Course No	Title	Sem.hrs	Grade	Term/Trns
Required Courses:				
*BIOL 105/105L (4,1) or GEOL 111/11lL (3,1)				
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CHEM 131	General Chemistry	4		
CHEM 131L	General Chemistry Lab	1		
CHEM 132	General Chemistry	4		
CHEM 132L	General Chemistry Lab	1		
**CHEM 300 (4) or CHEM 311/311L (4,1)				
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ENGL 385	Technical/Professional Writing	3		

Course No	Title	Sem.hrs	Grade	Term/Trns
Restricted Electives: 7 semester hours chosen from ENVS 312/312L, ENVS 315, ENVS 321, ENVS 350/350L, ENVS 396, ENVS 413, ENVS 431, ENVS 433, ENVS 455, ENVS 496				

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.) (10-12 semester hours; additional upper division hours may be needed.)

*MATH 151	Calculus	2		

Required Courses:

BIOL 105 Attributes of Living Systems and BIOL 105L Attributes of Livings Systems Laboratory
or GEOL 111 Principles of Physical Geology and GEOL 111L Principles of Physical Geology Laboratory

CHEM 300 Environmental Chemistry
or CHEM 311 Organic Chemistry and CHEM 311L Organic Chemistry Laboratory

Restricted Electives: 7 semester hours chosen from:

ENVS 312/312L Soil Properties & Characterization and Laboratory
ENVS 315 Mined Land Rehabilitation
ENVS 321 Environmental Risk Analysis
ENVS 350/350L Ecology and Management of Shrublands and Grasslands and Laboratory
ENVS 396 Topics
ENVS 413 Environmental Fate & Transport of Contaminants
ENVS 431 Water & Wastewater Treatment
ENVS 433 Restoration of Aquatic Systems
ENVS 455 Restoration Ecology
ENVS 496 Topics

SUGGESTED COURSE SEQUENCING FOR A MAJOR IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY – ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

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
ENVS 110	Environmental Science & Technology I	3
ENGL 111	English Composition	3
General Education	Natural Science with Lab	3-4
General Education	History	3
General Education	Fine Arts	3
		15-16

Spring Semester		Hours
ENGL 112	English Composition	3
STAT 200	Probability and Statistics	3
BIOL 105	Attributes of Living Systems	4
BIOL 105L	Attributes of Living Systems Lab	1
General Education	Humanities	3
		14

SOPHOMORE YEAR

Fall Semester		Hours
ENVS 200	Field Methods in Environmental Science	1
ENVS 200L	Field Methods in Env. Science Lab	1
CHEM 131	General Chemistry	4
CHEM 131L	General Chemistry Lab	1
KINE 100	Health and Wellness	1
General Education	Social/Behavioral Science	3
General Education	Applied Studies*	3
		14

Spring Semester		Hours
ENVS 221	Science & Technology of Poll. Control	3
CHEM 132	General Chemistry	4
CHEM 132L	General Chemistry Lab	1
General Education	Natural Science	3
General Education	Social/Behavioral Science	3
KINA	Activity	1
		15

*CSCI 120 Technical Software recommended

JUNIOR YEAR

Fall Semester		Hours
ENVS 331	Water Quality	3
ENVS 331L	Water Quality Lab	1
MATH 151	Calculus I	5
Electives	(Unrestricted)	3
General Education	Social/Behavioral Science or Humanities	3
		15

Spring Semester		Hours
ENVS 340	Air Quality and Pollution Control	3
ENVS 420	Adv. Env. Sampling & Anal. Methods	3
ENVS 420L	Adv. Env. Samp. & Anal. Meth. Lab	1
CHEM 300	Environmental Chemistry	4
ENGL 385	Technical/Professional Writing	3
		14

Summer Semester		Hours
ENVS 499	Internship	4

SENIOR YEAR

Fall Semester		Hours
ENVS 301	Environmental Project Management	2
ENVS 313	Characterization of Contaminated Sites	3
ENV 313L	Char. Of Contaminated Sites Lab	1
Electives	(Restricted)	4
Electives	(Unrestricted)	4-6
		14-16

Spring Semester		Hours
ENVS 212	Environmental Health & Safety	2
ENVS 212L	Environmental Health & Safety Lab	1
ENVS 410	Environmental Regulatory Compliance	3
ENVS 492	Capstone in ENVS	2
Electives	(Restricted)	3
Electives	(Unrestricted)	2
KINA	Activity	1
		14