CREDIT COURSE OUTLINE

I. COVER PAGE

(1) NR 34	(2) CONSERVATION LABORATORY	(3) 1
Number	Title	Units

(4)	Lecture / Lab Hours:			
	Course Hours			
		Weekly Lec hours:		0
		Weekly Lab hours:		54.00
		Total Contact hours:		54.00
	Lec will generate __ hour(s) outside work.			
	Lab will generate __ hour(s) outside work.			
(5)	Grading Basis:	Grading Scale Only		X
		Pass/No Pass option		
		Pass/No Pass only		
(6)	Advisories:			
(7)	Pre-requisites (requires C grade or better):			
	Corequisites:			

(8)Classification:		
	Degree applicable:	X
	Non-degree applicable:	
	Basic skills:	
(9)RC	Fulfills AS/AA degree requirement: (area)	
	General education category:	
	Major:	
	Certificate of:	
	Certificate in:	
(10)CSU	Baccalaureate:	X
(11)Repeatable: (A course may be repeated three times)		0
(12)C-ID:		
Proposed Start Date:		Fall 2012

(12) Catalog Description:
Application of conservation techniques, basic ecological principles, energy efficiency, and group study using basic scientific methods. Frequent field trips. One extended overnight field trip might be required.

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:

I. Plan, observe, interact, and participate in activities directly related to the conservation of natural resources.
II. Describe the impact of human activities on the environment and evaluate individual lifestyle choices in terms of natural resource use.
III. Determine interrelationships between biotic and abiotic factors in an ecosystem.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

In the process of completing this course, students will:

I. Evaluate each laboratory using basic scientific methods of inquiry.
II. Gain experience working as a team to complete a project in the field related to natural resources.
III. Identify the steps necessary to plan, organize and complete a restoration project.
IV. Observe ecological processes and identify key components of natural chemical cycles.
V. Distinguish processes that shaped the Sierra Nevada Mountain Range and local flora and fauna.
VI. Evaluate causes and potential solutions to natural resource issues related to consumption and pollution.

IV. COURSE OUTLINE:

Lab Content:

Conservation projects will be chosen in alignment with students learning outcomes and objectives and may pertain to the following components of forest management:

A. Scientific method
B. Biotic Communities of the Sierra Nevada
C. Soil and Soil Erosion
D. Water Quality
E. Forest Identification, Surveys

F. Range Conditions
G. Agriculture and Bioengineering
H. Pesticides
I. Wildlife Populations
J. Fisheries
K. Biodiversity
L. Stream Restoration
M. Recreation Use
N. Population Pressures
O. Pollution
P. Man and Natural Resources
Q. Local Environmental Issues

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

I. Sample Text Title:
   1. Recommended - Wagner, Travis *Environmental Science: Active Learning Laboratories and Applied POroblem Sets,* Wiley and Sons, 2008,

II. Other Readings

___ Global or international materials or concepts are appropriately included in this course
___ Multicultural materials and concepts are appropriately included in this course

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B, or C.

A. Writing Check either 1 or 2 below			
	1. Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.		
X	***2. Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable courses you must complete category B and/or C.***		
	a) essay exam(s)		d) written homework
	b) term or other paper(s)		e) reading reports
	c) laboratory report(s)		f) other (specify)

Required assignments may include but are not limited to the following:

B. Problem Solving Computational or non-computational problem-solving demonstrations, including:			
	a) exam(s)		d) laboratory reports
	b) quizzes	X	e) field work
	c) homework problems		f) other (specify):

Required assignments may include but are not limited to the following:
Determine methods to reduce siltation of streams

C. Skill demonstrations, including:			
	a) class performance(s)		c) performance exams(s)
	b) field work	X	d) other (specify) Individual projects allow for various skills such as proper installation of an erosion control structure.

Required assignments may include but are not limited to the following:
Wrire a report of daily conservation activities.

D. Objective examinations including:			
	a) multiple choice		d) completion

	b) true/false	X	e) other (specify): Short answer
	c) matching items		

COURSE GRADE DETERMINATION:
Description/explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.
Soil, Range Cons. Project 25% Water, Fisheries Cons. Project 25% Forest Identification, Surveys 25% Laboratory Report 25%

VII. EDUCATIONAL MATERIALS

For degree applicable courses, the adopted texts, as listed in the college bookstore, or instructor-prepared materials have been certified to contain college-level materials.

Validation Language Level (check where applicable):	College-Level Criteria Met YES	NO
Textbook		X
Reference materials		X
Instructor-prepared materials	X	
Audio-visual materials		X

Indicate Method of evaluation:

Used readability formulae (grade level 10 or higher)	
Text is used in a college-level course	X
Used grading provided by publisher	
Other: (please explain; relate to Skills Levels)	

Computation Level (Eligible for MATH 101 level or higher where applicable)	X	
Content		
Breadth of ideas covered clearly meets college-level learning objectives of this course	X	
Presentation of content and/or exercises/projects:		
Requires a variety of problem-solving strategies including inductive and deductive reasoning.	X	
Requires independent thought and study	X	
Applies transferring knowledge and skills appropriately and efficiently to new situations or problems.	X	

List of Reading/Educational Materials
Recommended - Wagner, Travis *Environmental Science: Active Learning Laboratories and Applied POroblem Sets,* Wiley and Sons, 2008,

Comments:

_____ This course requires special or additional library materials (list attached).
X This course requires special facilities:
Forest or riparian land with permission to implement conservation practices on that resource.

Attached Files:
NR 7 Corequisite Justification

BASIC SKILLS ADVISORIES PAGE The skills listed are those needed for eligibility for English 125, 126, and Math 201. These skills are listed as the outcomes from English 252, 262, and Math 250. In the right hand column, list at least three major basic skills needed at the beginning of the target course and check off the corresponding basic skills listed at the left.

Check the appropriate spaces.

_____ Eligibility for Math 201 is advisory for the target course.
_____ Eligibility for English 126 is advisory for the target course.
_____ Eligibility for English 125 is advisory for the target course.

If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course, stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the curriculum committee.

REQUISITES
No requisites

JUSTIFICATION OF LIMITATION ON ENROLLMENT

Enrollment in courses or blocks of courses may be limited based on performance, honors, or other performance based criteria. Be mindful of the disproportionate impact the limitation will have on specific groups of students. It is important to determine if the limitation will disproportionately keep under-represented students from enrolling in the course or block of courses.

Describe the reasons for limiting the enrollment.

Course Designator: NR 34
Course Title(s): CONSERVATION LABORATORY
Rationale for Limiting Enrollment: 0