

**Syllabus**  
**NRM 3301 & NRM 5303 Fire Ecology**  
**Spring 2016**

**Instructor:**

Bonnie Warnock

Office: 111A RAS

Phone: 837-8488

email: bwarnock@sulross.edu

Office Hours: 10:00-11:30 Tuesday and Thursday; 2:30-4:00 Monday; I am also available at other times by appointment.

**Course Description**

Study of fire effects in communities, fire policy, prescribed burning including planning and implementation

**Class Meeting Times**

Lecture: MWF 12:00-12:50

**Learning Objectives**

1. Students will be able to define the process of combustion and identify and explain the factors that affect the process in an wildland situation
2. Students will be able to describe the effect of fire on ecosystems and understand situations where fire is an appropriate management tool.
3. Students will be able to apply fire safely to an area with a defined burn plan.

**Course Outline**

This is a tentative outline of the class. The dates for the TDA course will be announced and the rest of the course schedule will move to accommodate this time slot.

Lecture	Topic
1	Introduction
2-3	Historical role of fire
3-5	Fire policy
5-7	Fire Monitoring
8-12	Fire Behavior
13-15	Fire effects on plants
16	Fire effects on animals
17	Fire effects on soil
18-20	Fire plans
21-22	Management of ecosystems with fire
23-28	Management of ecosystems with fire

**Recommended Text**

Wright, H. A. and A. W. Bailey. 1982. Fire ecology.

Scifres, C. J. and W. T. Hamilton, 1993. Prescribed burning for brushland management

### **Class Organization**

1. Class attendance is important and will be factored into the final grade. The SRSU catalog states “The Instructor will drop a student from a course when the student has a total of nine absences. An absence is defined as nonattendance to 50 minutes of class.
2. Cheating on an exam or assignment will result in an F for that material and possibly expulsion from the class with a grade of F.
3. Missed lecture notes may be obtained from a classmate. See me for handouts and assignments that may have been missed.
4. No make up exams will be given for an unexcused absence. If you miss an exam with an excused absence, the test must be made up within one week of the original exam date.
5. It is SRSU policy to provide reasonable accommodation to students with disabilities. If you would like to request such accommodations because of physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility.

### **Grades**

Burn Class	100 points
Field Trips/Fires	150 points 50 points for each
Mid Term	100 points
Class Participation	50 points

No bonus assignments will be given for class. Attendance and class participation will be considered when assigning a final grade.

Fire Professionals will be conducting a fire training that meets the requirements for the TDA certified Prescribed Burn Manager. The course will be February 9-11 from 8:00-5:00 at Kokernot Lodge, and if the weather is good we will have a burn on Feb 12<sup>th</sup>. The cost of the workshop is \$300.00 to Texas AgriLife Research. You will be given a registration form, which will be turned into the department so they can be mailed to Texas A&M.

We will be going on field trips during the class as field exposure is very important. To get credit for field trip participation you must go on two field trips in the class. There will be a minimum of 3 field trips. I currently have 5 areas selected for prescribed fires.

### **Grade Assignment**

<60 = F, 60-69 = D, 70-79 = C, 80-89 = B, 90-100 = A.

Graduate Credit: An additional assignment must be completed for graduate credit. This assignment will be worth an additional 100 points. You will select an area, define that area, discuss why a burn would benefit that area, and create a fire plan using the TDA format for that area.

## Program Learning Outcomes

### Program Learning Outcomes for the B.S. in Natural Resource Management

The graduating student will demonstrate that he/she is able to:

1. Identify species of wildland plants and wildlife common to the western United States and describe their natural history.
2. Demonstrate knowledge of the elements of an ecosystem.
3. Communicate about natural resources and conservation both verbally and in writing.
4. Conduct range and wildlife inventories in a team setting.
5. Apply knowledge about elements of an ecosystem into an appropriate conservation management plan.

### Program Learning Outcomes for the M.Agr. in Range and Wildlife Management

The graduating student will demonstrate that he/she is able to:

1. Apply statistical concepts and procedures to natural resource data
2. Evaluate literature and references as they apply to the natural resource field
3. Demonstrate their knowledge of the fundamentals and advanced concepts of range and wildlife management.

### Program Learning Outcomes for the M.S. in Range and Wildlife Management

The graduating student will demonstrate that he/she is able to:

1. Apply statistical concepts and procedures to natural resource data
2. Evaluate literature and references to substantiate an applied research project.
3. Examine, select, and utilize appropriate resources, materials, and data collection instruments to implement research projects.
4. Justify and defend the research questions and design.