



Fire Paradigms Spring, 2015 FOR6215: 3 credits



Course Description:

This course focuses on an examination of paradigms related to wildland fire, whether biological, political, or social. Students will engage in in-depth reviews and syntheses of existing evidence for/against multiple paradigms. The theoretical basis, and ecological, policy, or management implications will also be investigated. All graduate students with an interest in fire ecology, and background in related coursework, are welcome.

Instructors:

Wendell Cropper (wcropper@ufl.edu)

Leda Kobziar (lkobziar@ufl.edu)

Location: McCarty B 3108 Periods 7-8: Thursday

Office hours:

Dr. Cropper After class (or by appointment), 214 N-Z Hall

Dr. Kobziar – Thursday 11-1 (or by appointment), 208 N-Z Hall

Objectives:

At the end of this course, each student will be able to:

- Critically evaluate the ecological implications of fire management practices
- Apply an in-depth understanding of fire ecology to fire research endeavors
- Engage in critical examination of a variety of fire ecology approaches, subjects, and methodological applications
- Demonstrate increased individual ability to utilize and/or improve upon existing fire ecology theory and/or models

General Course Overview:

Each year new “fire paradigms” will be investigated. A variety of approaches will be employed in an attempt to support or refute the accepted theory and its associated implications. Students will utilize multiple avenues of investigation, conduct an analysis of existing primary literature, devise an actual or hypothetical experiment or analysis by which to test the theory, and work collaboratively to produce a final multi-authored manuscript suitable for publication. *Students will work with instructors to identify each year's fire paradigms.*

Potential approaches include:

- Paleoecology/ fire history
- Fire behavior and ecology modeling
- Meteorology and climate/weather analyses
- Biogeography and fire regimes
- Autecology
- Human dimensions
- Implications for management, science, and policy

Format:

Alternate spring semesters, contingent on demand, with weekly or biweekly meetings; 2-3 hour length. Format is a mixture of discussions, student/ instructor presentations, lectures by invited guests, and guided research and writing.

Students will work in pairs or groups depending on enrollment. We estimate that each group will be responsible for leading 2 discussions over the semester. Short assignments to ensure progress will be announced.

Class Expectations, Make-up, and Attendance Policies:

Weekly attendance and active participation in discussions are predicated on having read and interpreted the assigned literature, or prepared the assignment, prior to meetings.

Evaluation of Student Performance

- 40% Final report
- 30% Short assignments
- 15% Presentation
- 15% Active participation based on thorough preparation

Grading Scale

93%-100% A	90-92.9% A-	86% - 89.9% B+	80% - 85.9% B
76% - 79.9% C+	70% -75.9% C	66% - 69.9% D+	60% - 65.9% D
0-60% E			

Potential Readings

Agee, J. K. 1993. Fire ecology of Pacific Northwest forests. Island Press, Washington DC

Biswell, H. H., 1989. Prescribed burning in California wildlands vegetation management. University of California Press, Berkeley, CA. 255 p.

Whelan, R. J., 1995. The ecology of fire. Cambridge U. Press, Cambridge, MA. 346 p.

Wright, H. A., Bailey A. W. 1982. Fire ecology; United States and southern Canada. John ‘ Wiley & Sons. 501 p.

Pyne, S.J. 2007. Problems, paradoxes, paradigms: triangulating fire research. International Journal of Wildland Fire 16: 271–276.

Parr, C.L. and Anderson, A.N. 2006. Patch Mosaic Burning for Biodiversity Conservation: a Critique of the Pyrodiversity Paradigm. Conservation Biology 20:1610-1619.

Naeem, S. 2002. Ecosystem consequences of biodiversity loss: the evolution of a paradigm. *Ecology* 83:1537-1552.

References

Web Sites:

[Fire Effects Information System](#)

[Fire Management Software](#)

[FIREWISE](#)

[Florida Division of Forestry](#) (weather, drought index, etc)

[National Interagency Fire Center](#)

[Tall Timbers Research Center](#)

[USFS – Fire](#)

[USFS – Southern Research Station, Interface South](#)

[USFS –Forest Encyclopedia Network](#)

[University of California Forest Products Lab](#)

Important Literature Sources:

International Journal of Wildland Fire

Fire Ecology (available on-line at <http://www.fireecology.net/pages/13>)

Forest Ecology and Management

Forest Science

Journal of Forestry

Southern, Western, Northern Journals of Applied Forestry

Proceedings of Tall Timber Fire Ecology Conferences

USDA Forest Service General Technical Reports, Research Notes, and Research Papers

Academic Honesty: In 1995 the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. By enrolling at the University, and in this course, you commit yourself to that standard. The honor code, in part, states “On all work submitted for credit by students at the university, the following pledge is either required or implied: ‘On my honor, I have neither given nor received unauthorized aid in doing this assignment.’” Failure to comply with this commitment may result in disciplinary actions up to and including failing this course and expulsion from the University.

UF Counseling Services:

Students experiencing crisis or personal problems that interfere with their general well being are encouraged to utilize the University’s counseling resources. Both the Counseling Center and Student Mental Health provide confidential counseling services at no cost for currently enrolled students. Resources are available on-campus for students having personal problems or lacking clear career and academic goals, which interfere with their academic performance. These resources include:

1. [University Counseling Center](#), 301 Peabody Hall (next to Criser Hall), 392-1575, personal and career counseling; www.counsel.ufl.edu
2. [Student Mental Health Services](#), Student Health Care Center (2nd floor, Student Health Services, Infirmary), 392-1171, personal counseling; <http://shcc.ufl.edu/smhs/>

3. Center for Sexual Assault/Abuse Recovery & Education (CARE), Student Health Care Center, Infirmary Rm 245, 392-1161, ext 4362, sexual assault counseling; and self help information tab at **www.counsel.ufl.edu**
4. Career Resource Center, Reitz Union, 1st floor, 392-1601; career development assistance, counseling; <http://www.crc.ufl.edu/> .

Students with Disabilities Act:

The Dean of Students Office coordinates the needed accommodations of students with disabilities. This includes the registration of disabilities, academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. *Dean of Students Office*, 202 Peabody Hall, 392-8565, www.dso.ufl.edu.

Software use: All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing **software use**. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.