# Global Fire EGC 302

# Fort Lewis College-Winter 2010

**Class Schedule:** Tuesday/Thursday 10:10 am -12:10 pm

Room EBH 210

Instructor: Dr. Julie Korb korb\_j@fortlewis.edu

Office: 752 Berndt Hall phone: 382-6905

 Office Hours: T/R: 9:00-10:00; Thursday 1:30-2:30 or by appt.

**Catalog Description:**

This course will examine fire from a cultural, ecological, political, and management perspective and how these perspectives vary globally. It will introduce basic fire science principles and incorporate these principles into the diverse ecosystems across the globe. This course will also examine how fire is related to other global environmental issues such as carbon cycling, global warming, and biodiversity protection.

**Required Texts:**

1) Flames in our forest, disaster or renewal?; Stephen F. Arno and Steven Allison-Bunnell (2002)—Flames in syllabus

2) World Fire: The Culture of Fire on Earth; Stephen Pyne (1997)—Fire in syllabus—this is no longer in print (you can get articles from Library Reserves as hard copies or online via the library or you may purchase the book online (e.g. Amazon)

-Additional reading will be on my Fort Lewis College website:

http://faculty.fortlewis.edu/KORB%5FJ

**Course Objectives:**

 The main objectives for this course are to: 1) understand why fire is not just a local/regional issue but one of global importance; 2) look at fire from a cultural, ecological, political, and management perspective and how these perspectives vary across the globe; 3) understand how fire is related to other global environmental issues such carbon cycling, global warming, and biodiversity protection; 4) introduce basic principles and concepts related to fire; and, 5) incorporate these principles and concepts into the diverse ecological systems across the globe. This course will begin by providing you with a historical and global cultural perspective of fire. You will then learn about basic fire science, species' adaptations to fire, the role of abiotic and biotic factors in fire disturbance, and human interactions with the environment. We will then explore different ecosystems found across the globe and incorporate our knowledge gained earlier in the semester. Finally, we will end the semester by exploring environmental, political, and management issues related to fire on a global scale including carbon cycling, global warming, and biodiversity protection.

By the end of this course, you should be able to:

1. Be able to explain why fire is **not** just a *local/regional* issue but one of global importance and how fire has a direct impact on other global environmental issues.
2. Be able to explain why fire is **not** just an *ecological* issue but also a cultural, political, management, and philosophical issue.
3. Predict the response of different global ecosystems to fire based upon available knowledge and a thorough understanding of the concepts and principles of fire history and fire effects.
4. Understand basic combustion processes and the role of fuels, weather, and topography on the behavior of a wildland fires.
5. Apply your fire knowledge to current local, regional, and global management practices and proposed management actions for diverse ecosystems and assess their practicality based on social, ecological, and political concerns.
6. Research topics related to fire across the globe and discuss them with your peers in the class.

**General Education Requirements:** This course fulfills a requirement for EGC. The learning outcomes for the EGC program are organized into two categories:  college-wide liberal arts outcomes and global citizenship outcomes.

***College-wide Liberal Education Outcomes*.** After a student has completed a course or an experience that counts for the EGC requirement, s/he will have demonstrated at an upper-division level:

* Learning as inquiry – The ability to use modern methods to access, analyze, interpret, and apply a wide range of information, data, and appropriate sources.
* Critical thinking as problem solving – The ability to analyze, synthesize, evaluate, and apply information in order to solve complex problems.
* Communication as intellectual contribution – The ability to contribute to scholarly understanding of a subject by balancing complexity and clarity of argument, clear conceptual organization of evidence, and adaptation to context and audience.
* Action as responsible application of academic learning – The ability to use all of the above to make positive contributions to one’s community and the larger society.

***EGC Program Outcomes*.** After a student has completed a course or an experience that counts for the EGC requirement, they will have:

* Demonstrated an awareness of the global dimensions of social, ecological, political, economic, or cultural systems
* Critically analyzed the global phenomena, problems, issues, or topics that are the specific focus of the course using diverse cultural perspectives and multiple disciplinary frameworks.
* Identified possible responses to the global phenomena, problems, issues or topics that are the specific focus of the course.  These responses may be enacted by individuals, social networks, movements, organizations, governments or other entities.

**Class Format:** It is imperative for you to be at class in order to learn the course material and to receive a good grade. Our class meeting times will be 2 hours long (Tuesday and Thursday), and you should expect to be *in class* for the entire session. Every day we will take a break mid-way through the class, so please hold off your hunger pangs, restroom needs, urgent phone calls or coffee crises for this break. We will reconvene *promptly* after the break, and usually continue with lecture begun in the first half of class or do activities related to the topic discussed earlier in lecture. Our class will consist of lecture and activities. These activities will be wide-ranging, including things like small group discussions, field outings, videos, debates and other fun stuff. You will need to come to this class prepared to *get involved* and be an *active participant*.

**Reading Assignments:** All reading assignments are assigned to prepare you for each class period and therefore you should do your weekly assignments BEFORE you come to class. I will draw information from class readings each day and thus it is necessary that you will have read your assignment so you will be able to participate in class discussion. ALL reading material is FAIR GAME on exams.

**Evaluation:** You will have opportunities to demonstrate your knowledge of global fire in several ways, including written exams, oral presentations, group discussion participation, and other in-class hands on cooperative learning activities. Grading will be done on a point system.

### Evaluation Format Points Percentage

Exams (3) @ 100 pts 300 40%

Research Paper 100 13.3%

Oral Presentation 100 13.3%

Written Assignments/Concept Maps 100 13.3%

Indigenous Presentation 40 5.5%

Summary/Discussion 60 8%

Participation 50 6.5%

 750 points total 100%

**Midterm grades:** Midterm grades are due on March 1st  and will be based up one exam, ½ group discussion participation, and in-class activities. If you receive a failing midterm grade you will be asked to withdraw from the course.

**Exams:** No make-up exams will be allowed without prior instructor permission or a note from a physician. Exams during the semester will cover the material since the first of the semester or the previous exam. The final exam is cumulative take-home essay questions that will allow you to demonstrate critical thinking skills related to global issues related to fire.

**Research Paper/Oral Presentation:** Each student will be required to write a research paper and give a 12-minute oral presentation on the topic of his or her choice (the same topic for both the written and oral presentation). This is an opportunity for you to explore your interests and/or share your knowledge with your classmates and myself. Your topic must focus on a **global issue** related to fire. For example, if you are an Anthropology major you may want to explore the role of fire in Aborigine culture in Australia; if you are a Business major, you may want to investigate if the current fire policy in Europe is fiscally sound; and, if you are a Biology major, you may want to investigate post slash/burn vegetation response in the Amazonian rainforest. The oral presentation and research paper represent **27 percent** of the final grade so it is something you should *NOT* leave to the end of the semester. Topic choices will need to have instructor approval by the end of the 4th week of classes. Specific details for the research paper and oral presentation will be provided.

**Concept Maps:** We will use concepts maps as an alternative method to explore lecture and reading topics. The use of concept maps was first developed by J. D. Novak of Cornell University in the early 1980's. It is based on the theory that puts the main emphasis on the influence of students' prior knowledge on subsequent meaningful learning. According to Ausubel, “the most important single factor influencing learning is what the learner already knows.” When meaningful learning occurs, it produces a series of changes within our entire cognitive structure, modifying existing concepts and forming new linkages between concepts. As a result, this is why meaningful learning is lasting and powerful whereas rote learning is easily forgotten and not easily applied in new learning or problem solving situations.

**Indigenous Presentation:** You will choose a culture/fire article from my website and pair up with another classmate and summarize the article for the class. You and your classmate will give a 10 minute oral presentation on a group of indigenous people from across the globe and discuss how they use/used fire in their livelihood

**Group Discussion:** Throughout the semester will we have both small and large group discussions regarding class lecture material and reading assignments. These discussions will provide you with the opportunity to explore the global cultural, ecological, and political issues related to fire more in-depth with your classmates and myself. For your group discussion grade, you need to be present on discussion days. If you are absent, it will result in a zero for your group discussion grade for that day.

**Summarizing Readings & Leading Discussions:**

Each day that we have a reading to discuss, two students will be in charge of leading that discussion. One member of this team will be responsible for *summarizing* the reading, while the other will be in charge of leading a meaningful *discussion*. **Summaries:** For each reading summary you will type up a **full** one page outline of what you and your partner felt were the most important topics covered or points made in the reading. Make your summaries interesting & critical, and be sure to cite page numbers when you refer to particular passages in the reading (for future reference in writing papers). On the discussion day each class member receives a copy of this summary (please make sure you make enough handouts for all of your class members). You will then give a *brief* oral overview of the reading for the class, before we begin discussion. You are also expected to help the discussion leader.

**Discussion:** On the class day *before* a discussion takes place, the discussion leader will distribute a list of thought provoking questions related to the reading to all class members. This will guide their reading of the assignment and prepare them for meaningful discussion for the next class period. The discussion leader is then responsible for beginning & directing discussion either in small groups or with the whole class.

**Final Word:** Enjoy this course. Although learning a new subject is challenging at times, it is also FUN. If you have problems with anything regarding this course please come visit me during my office hours or make an appointment at a time convenient for both of us. I am looking forward to an exciting semester learning about global fire issues!