Understanding fire as an Earth system process
Some things you will learn this semester:

- Fire as a physical and chemical process
- Fire behavior
- Fire ecology
- Fire regimes of the world
- Fire management
- Fire in a changing world
Fire behavior

http://firelab.org/
Figure 1. (a) Two options for a given forest stand and the resultant tree survivorship following a wildfire event. (b) The carbon accounting consequences of two possible options for a given forest stand and the results following a wildfire event. The cubes represent the amount of carbon remaining in the ecosystem after wildfire.
Fire spread modeling shows how fire spreads across landscapes, and appears to confirm the findings from fire scar analysis.

J. Conver, MS Thesis, University of Arizona
Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity
Why Study Fire?
Las Conchas Fire
Infrared Map 07/09/2011
Imagery Date: 07/09/2011
Time: 2243 MDT
Interpreted Total Acres: 142,250
IRIN: Brian Banks

* Isolated Heat Sources
Scattered Heat
Intense Heat
Heat Perimeter
LARGEST FIRES THIS SEASON TO DATE:

- Long Draw (OR), 558,000 ac
- Holloway (NV), 461,000 ac
- Whitewater-Baldy Complex (NM), 298,000 ac
- Rush (CA), 271,000 ac
- Ash Creek (MT), 250,000 ac
- Kinyon Road (ID), 235,000 ac
- Rosebud Complex (MT), 171,000 ac...

COLORADO 2012: 35,000 PEOPLE EVACUATED FROM COMMUNITIES

ELLENSBURG, WASHINGTON – 200 HOMES AND BUSINESSES TO DATE
Miller Fire: An important reference? What happens when fire is allowed to stay in the system?

Preliminary burn severity in the Miller Fire, Gila Wilderness
Your thoughts?