

**ESPM C22AC, ANTHRO C12AC, NATAMST C22AC**

**SPRING SEMESTER 2024**

**Course Title:** “Fire: Past, Present and Future Interactions with the People and Ecosystems of California”

**Class:** MWF 11:10-11:59 AM

Classroom: Lecture Hall 245 - Li Ka Shing Center

Discussion Sections: As Assigned

**Teaching Team:**

Scott Stephens, ESPM Professor

Kent Lightfoot, Anthropology Professor

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**Course Abstract:**

The purpose of this class is to explore the interactions of fire with the people and ecosystems of California over the last 10,000 years. Most Californians today fear wildland fires that each year scorch millions of acres of land, cost hundreds of millions of dollars to fight, destroy human lives and property, and impact aesthetically pleasing landscapes; the 2017-2021 Northern California fires are telling examples of this perspective. Yet people have not always lived in dread of fire conflagrations. Indigenous populations learned to live with fire over many centuries and to make constructive use of it to enhance the diversity, quantity, and sustainability of plant and animal communities. Some Spanish, Mexican, and early American colonists employed prescribed burning to enhance grazing and timber lands in some areas of the state. This class emphasizes how our interactions with wildfires in California have changed dramatically over the centuries, and that there is much that can be learned from earlier fire management strategies – some of which may be applicable to our contemporaneous world.

The course will provide a historical perspective on human-fire interactions at the landscape scale using a diverse range of data sources drawn from the fields of fire ecology, biology, forestry, history, anthropology, and archaeology. The goal is to examine how diverse populations in California have related to wildland fires, and how some groups employed fire to shape and alter local ecosystems. We will begin with the earliest evidence of human-wildfire interactions that date back to the Late Pleistocene and Early Holocene. We will then explore how fire was used by Native Californians in Late Holocene and Historic times to create rich mosaics of habitats across local regions. High biodiversity, in turn, provided local communities with a cornucopia of

foods, medicines, and raw materials for clothing, baskets, houses, dance regalia, and other cultural objects. Some scholars argue these landscape practices were analogous, in many ways, to those employed by Native farmers elsewhere in North America. Some would also argue that the long-term survival of specific types of habitats in California, including grasslands, oak woodlands, forests, wetlands, and montane meadows, are ultimately dependent on Indigenous stewardship methods in order to maintain their health and vigor. We will explore this idea in the class.

We will then examine how Spanish, Mexican, Russian, and early American colonists in California interacted with fire and how it was employed to facilitate grazing lands for thousands of head of livestock and in early forest management and conservation. A significant portion of the course will focus on the historical development of fire suppression policies enacted by the federal and state governments over the last century. The implications of these fire suppression policies will be analyzed and the consequences they have for propagating catastrophic fires today will be explored. We will also consider recent changes in the practices of government agencies that are moving away from fire suppression policies to that of the strategic use of prescribed burning and managed wildfire to control fuel loads and increase the biodiversity and sustainability of wildlands. We plan to relate this section of the class to recent fires in California, particularly the devastating 2017 North Bay fires, 2018 Paradise fire, and 2021 Dixie fire. Finally, we will consider how contemporaneous Native Californian tribes are attempting to re-deploy fire (cultural burning) to enhance biodiversity, control intrusive species, revitalize Indigenous cultural practices, and maintain food security. We will discuss on-going projects involving Indigenous scholars and public resource agencies in four regions of the state: Northwest California (Karuk, Yurok territory), the Sierra Nevada (Mono territory), Central California (Amah Mutsun territory) and Southern California (Chumash, Shoshone territories).

The course will present case studies from California to highlight how diverse human populations (Native California, Spanish, Mexican, Russian, American) have interacted with fire and the consequences this has had on local landscapes and ecosystems. Case studies will focus on past and present Native Californian tribes, Spanish missions, Mexican ranchos, American farms and ranches, private timber lands, and government agencies, including the US National Park Service, US Forest Service, and California State Parks. Guest speakers, including tribal scholars and government resource managers, will provide insights to the class about current perspectives about fire and various kinds of fire management practices.

**Prerequisites:** None

**Participation:** Lectures will be taught in person in Lecture Hall 245 in the Li Ka Shing Center on campus. Lectures will not be recorded or available for later viewing, so in person participation is required for this course. All enrolled students must be signed up for a Discussion Section. Your Discussion Section will be taught in person as listed in the Schedule of Classes. Participation at this time is required and attendance will be taken in the Discussion section.

**Course Requirement:** Three exams required (two midterms and a final exam), a research paper (6-7 pages, typed, double space), and participation in weekly discussion sections. Participation in weekly discussion sections is mandatory. Each student is responsible for signing up for a

discussion section listed in the Schedule of Classes. The class grade will be based on participation in the discussion section (20%), the two midterm exams (20% each), the final exam (20%), and research paper (20%). The purpose of the research paper is to have students select an issue concerning fire in California that they will investigate in some detail using available archival/library documents. Students will write up their observations in a 6-7 pages paper (due in the last GSI section of the semester). If you are late turning in your research paper, then you will be docked 5% for every day it is late. **Please note that more information on the research paper and any deadlines for sub-assignments concerning the paper will be presented in your GSI sections!**

### **GRADING:**

The course grade will be based on:	<u>Total (%)</u>	<u>Grade</u>	<u>Standards</u>
1. Two Midterms -- 20% each	40	A =	90-100%
2. Discussion Section	20	B =	80-90%
3. Research Paper	20	C =	70-80%
4. Final Exam	20	D =	60-70%
		F =	< 60%

(+ and – grades given +/- 2% of thresholds)

**MIDTERM EXAM DATES: First Midterm: Feb 23; Second Midterm: March 22**

**FINAL EXAM DATE: Tuesday, May 7, 7:00-10:00 pm**

If you are going to miss an exam you must let one of the instructors know in advance. It may not be possible to schedule make-up exams but we can talk about it. If you miss an exam without first talking with the instructor, it will not be possible to make it up and you will get a 0 (emergencies excluded).

**Discussion Sections:** Students must sign up for a discussion section or risk being dropped from the course. Discussion sections are an important component of the course and you are expected to attend them. Discussion section assignments must be turned in on time to receive full credit. You will be docked 5% for every day your GSI assignments are late. Remember that performance in the discussion sections will count for 20% of your course grade.

### **COURSE OUTLINE:**

Week 1: Introduction to the Class, Goals of the Course

Jan 17: Go over syllabus, answer questions

Jan 19: Short overview on fire in CA

Week 2: Overview: The Earliest Evidence of Wildland Fires; Early Human Interactions with Fire Beyond California. Our goal this week is to place the human use of fire in California into a broader geochronological framework.

Jan 22: Begin History of Fire

Jan 24: History of Fire

Jan 26: **Guest: Tim Gill**

Week 3 The Study of Historical Fire Records in California: Dendroecology, Phytoliths, Pollen, Charcoal (Introduce Field of Historical Fire Ecology). Our goal this week is discuss some of the research methods employed in the study of past fire regimes and how these are being employed in California today.

Jan 29: Introduce Basic Ecosystems of CA

Jan 31: Fire History Methods

Feb 2: **Guest: Nicholas Laluk**

Week 4: Introduction to Indigenous landscape stewardship practices. Our goal this week is to discuss the different kinds of management practices employed by Native peoples to enhance the productivity, diversity, and sustainability of plants and animals they depended on for food, medicine, dance regalia, and raw materials for craft production. We will introduce cultural/ anthropogenic burning practices as employed by Native Californian communities. We will also examine different perspectives about the timing and scale of cultural burning by Native populations in California.

Feb 5: Brief Introduction to Native California; Kinds of Indigenous stewardship practices

Feb 7: Debate about the scale and timing of anthropogenic burning

Feb 9: **Guest: Alice Lincoln-Cook**

Week 5: The goal this week is to examine the methods and challenges of studying cultural burning in California employing multiple lines of evidence (tribal histories, ethnography, ethnohistory, eco-archaeology). We will introduce case studies from coastal California and the Sierra Nevada Mountains that are examining evidence for cultural burning by tribal communities in ancient and historical times.

Feb 12: Study of Indigenous landscape stewardship practices

Feb 14: Eco-archaeological research in California

Feb 16: **Guest: Rob Cuthrell**

Week 6: Colonialism and the Changing Use of Fire: Indigenous, Spanish, Mexican, and Russian Interactions with Fire. The goal this week is to highlight interactions between Native populations and colonists in California and how these entanglements affected Indigenous landscape management practices, particularly cultural burning. We examine how tensions between ethnic groups influenced fire practices and policies in early colonial times. While some Spanish, Mexican, and Russian colonists employed prescribed burning to enhance grazing and

timberlands, they specifically prohibited Native peoples from actively setting fires.

Feb 19: President's Day (No Class)  
 Feb 21: Issues of colonialism  
 Feb 23: **FIRST MIDTERM EXAM**

Week 7: American Period Colonization and Its Impacts on Native Californians. We present the broader context of American Period settler colonialism that proved devastating to both California Indian populations and many native ecosystems of California in the late 19th and 20th centuries. By preventing Indigenous people from practicing their traditional subsistence activities, American settlers created an unbearable situation for those Native people who attempted to live off the land. We examine how fire suppression policies were part of a broader package of American practices that led to a dire situation for California Indians: genocide, loss of ancestral lands, minimal access to Native foods and goods, and their exclusion from the management of public lands.

Feb 26: Settler Colonialism in the American Period  
 Feb 28: Implications of Settler Colonialism on Tribes  
 March 1: **Guest: Valetine Lopez**

Week 8: American Period Ranchers and Timber Owners and Fire. For this week, we discuss how some American ranchers continued to employ prescribed burning to augment the grazing potential of their lands. Timber companies also used fire in various ways, including broadcast burning in the early 1900's. There is some evidence that ranchers in central California may have employed Indigenous people to implement their prescribed burns.

March 4: **Guest: Ron Goode**  
 March 6: Timber owners and early use of fire  
 March 8: Early Foresters and Fire (Kent Absent at SCA Meeting)

Week 9: Fire Suppression Policies of the US Government and State of California in Late 19<sup>th</sup> and 20<sup>th</sup> Centuries. This week will focus on the development of the fire suppression policies that were implemented by federal and state government agencies. We will examine the implications that these policies had for local California ecosystems.

March 11: Outline fire suppression policies of US/CA governments  
 March 13: Implications for local ecosystems (fuel load, fire risks!)  
**March 15: Guest: Brandon Collins**

Week 10: Post-Fire Suppression Practices. The lecture and readings for this week will examine recent changes in the practices of government agencies that are moving away from fire suppression policies to that of the strategic use of prescribed

burning to control fuel loads and increase the biodiversity of wildlands. We will highlight how some government agencies, working in close collaboration with Native populations and other diverse communities in California, are re-deploying fire to enhance biodiversity, to control invasive species, and to reduce the risks of major, destructive wildfires.

March 18: Forest restoration and the Leopold Report

March 20: **Guest: Jim Agee**

**March 22: SECOND MIDTERM EXAM**

Week 11: **SPRING BREAK (NO CLASS) March 25-March 29**

Week 12: Contemporaneous Perspectives about Fire from Native Californian Tribes. This week will be devoted to examining how fire and other stewardship practices are being employed by tribes to revitalize local ecosystems and Indigenous cultural practices, including the harvesting of native plants for food, medicines and basket material. We will explore how lessons from past Indigenous practices may provide new insights for the contemporary management of public spaces that are rooted in the deep history of Native Californians.

April 1: Tribal Revitalization

April 3: Case Studies of Indigenous Stewardship Practices

**April 5: Guest: Frank Lake**

Week 13: Examples of Prescribed Burning and Managed Lightning Fire in California. The purpose for this week is to provide some case studies of how prescribed fire is being employed in different ecosystems of California, as well as in Florida.

April 8: How to plan for prescribed burning, comparison with Florida

April 10: Managed wildfire effects on water and forest health

**April 12: Guest: Jameson Karns**

Week 14: The Future of Human-Fire Interactions in California. Our goal for this week is to discuss some of the directions we may want to pursue for rethinking how we care for our public lands. For example, what are the challenges of integrating contemporary forest and range management protocols with some of the practices that involve traditional Indigenous knowledge about fires? How feasible is it to have tribal groups and other stakeholders work with federal and state agencies in the management of public lands? We examine the North Bay firestorms of 2017 and 2018 Camp Fire as case studies of how firestorms can have significant impacts on local ecosystems and on people from diverse backgrounds, wealth, and ethnicity.

April 15: Rethinking the Stewardship/Care of the California Landscape

April 17: North Bay, Camp, and the Dixie Fires: What have we learned?

**April 19: Guest: Patrick Gonzalez**

Week 15: Current California initiatives concerning wildfires. Course Conclusion

April 22: Current California Initiatives concerning wildfires:  
Interesting times

April 24: Summarize main points of class

April 26: Final Comments

Week 16: Reading/Review/Recitation Week (April 29-May 3)

April 29: Review Session for Final Exam

Week 17: **FINAL EXAM: Tuesday, May 7 (7:00-10:00 pm)**

## REQUIRED READINGS

Week 1: Introduction to the Class, Goals of the Course

Bowman, David MJS

2015 What is the Relevance of Pyrogeography to the Anthropocene? *The Anthropocene Review*:1-4.

Bowman, David MJS, Jennifer Blach, Paulo Artaxo, William J. Bond, Mark A. Cochrane, Carla M. D'Antonio, Ruth DeFries, Fay H. Johnston, Jon E. Keeley, Meg A. Krawchuk, Christian A. Kull, Michelle Mack, Max A. Moritz, Stephen J. Pyne, Christopher Roos, Andrew C. Scott, Navjot Sodhi and Thomas W. Swetnam

2011 The Human Dimension of Fire Regimes on Earth. *Journal of Biogeography* 38:2223-2236.

Pyne, Stephen J.

2016 *California: A Fire Survey*. University of Arizona Press, Tucson. Prologue pp 1-16.

Week 2: Overview: The Earliest Evidence of Wildland Fires; Early Human Interactions with Fire Beyond California

Pausas, Juli G. and Jon E. Keeley

2009 A Burning Story: The Role of Fire in the History of Life. *Bioscience* 59(7):593-601.

Pinter, Nicholas, Stuart Fiedel and Jon E. Keeley

2011 Fire and Vegetation Shifts in the Americas at the Vanguard of Paleoindian Migration. *Quaternary Science Reviews* 30:269-272.

Ruddiman, William F., Erle C. Ellis, Jed O. Kaplanb and Dorian Q. Fullerc

2015 Defining the Epoch We Live In: Is a Formally Designated "Anthropocene" a Good Idea? *Science* 348(6230):38-39.

Thompson, Jessica C., David K. Wright, Sarah J. Ivory, Jeong-Heon Choi, and Et. al.

2021 Early Human Impacts and Ecosystem Reorganization in Southern-Central Africa. *Science Advances* 7 (<http://advances.sciencemag.org/content/7/19/eabf9776>).

### Week 3            The Study of Historical Fire Records in California: Dendroecology, Phytoliths, Pollen, Charcoal (Introduce Field of Historical Fire Ecology)

Anderson, R.S. and S.L. Carpenter

1991    Vegetation Change in Yosemite Valley, Yosemite National Park, California, during the Protohistoric Period. *Madrono* 38(1):1-13.

Klimaszewski-Patterson, Anna, Christopher T. Morgan, and Scott A. Mensing

2021    Identifying a Pre-Columbian Anthropocene in California. *Annals of the American Association of Geographers* 111(3):784-794.

Laluk, Nicholas

2021    Ndee Hot Spots: Ethics, Healing, and Management. Hot Spots, Fieldsights, July 27.  
<https://culanth.org/fieldsights/ndee-hotspots-ethics-healing-and-management>. Pyne, Stephen J.

Pyne, Stephen J.

2016    California: A Fire Survey. University of Arizona Press, Tucson. pp 67-85.

Stephens, S.L., Hall, L., Stephens, C.W., Bernal, A.A. and Collins, B.M., 2023. Degradation and restoration of Indigenous California black oak (*Quercus kelloggii*) stands in the northern Sierra Nevada. *Fire Ecology*, 19(1), p.12.

### Week 4:            Introduction to Indigenous Landscape Management Practices: Anthropogenic Burning

Anderson, M. Kat

2005    *Tending the Wild: Native American Knowledge and the Management of California's Natural Resources*. University of California Press, Berkeley. Introduction (pp 1-10), Chap 4 (pp 125-154).

Barrett, Stephen W., Thomas Swetnam and William L Baker

2005    Indian Fire Use: Deflating the Legend. *Fire Management Today* 65(3):31-34.

Hankins, Don

2021    Reading the Landscape for Fire. *Bay Nature* 21(1):28-35.

Hankins, Don, Scott Stephens, and Sara Clark

2022    LA Times OP-ED on Indigenous-western science fire policy partnership.

Halsey, Richard

2022 Response to Hankins, Stephens, and Clark OP-ED

Lightfoot, Kent G. and Otis Parrish

2009    *California Indians and their Environment: An Introduction*. University of California Press, Berkeley. Pp. 2-36.

Vale, Thomas R.

1998    The Myth of the Humanized Landscape: An Example from Yosemite National Park. *Natural Areas Journal* 18(3):231-236.

### Week 5:            Eco-Archaeological Investigations of Anthropogenic Burning: Evidence of Indigenous Management Practices?

- Cuthrell, Rob Q.  
2013 Archaeobotanical Evidence for Indigenous Burning Practices and Foodways at CA-SMA-113. *California Archaeology* 5(2):265-290.
- Gassaway, Linn  
2009 Native American Fire Patterns in Yosemite Valley: Archaeology, Dendrochronology, Subsistence, and Culture Change in the Sierra Nevada *Society for California Archaeology Proceedings* 22:1-19.
- Keeley, Jon E.  
2002 Native American Impacts on Fire Regimes of the California Coastal Ranges. *Journal of Biogeography* 29:303-320.
- Lightfoot, Kent G., Rob Q. Cuthrell, Chuck J. Striplen and Mark G. Hylkema  
2013 Rethinking the Study of Landscape Management Practices Among Hunter-Gatherers in North America *American Antiquity* 78(2):285-301.
- Lightfoot, Kent G., Rob Q. Cuthrell, Mark G. Hylkema, Valentin Lopez, Diane Gifford-Gonzalez, Roberta A. Jewett, Michael A. Grone, Gabriel M. Sanchez, Peter A. Nelson, Alec J. Apodaca, Ariadna Gonzalez, Kathryn Field, Jordan F. Brown, Alexii Sigona, Paul V. A. Fine  
2021 The Eco-Archaeological Investigation of Indigenous Stewardship Practices on the Santa Cruz Coast. *Journal of California and Great Basin Anthropology* 41(2):185-204.
- Lopez, Valentin  
2013 The Amah Mutsun Band: Reflections on Collaborative Archaeology. *California Archaeology* 5(2):221-223
- Week 6: Colonialism and the Changing Use of Fire: Indigenous, Spanish, Mexican, and Russian Interactions with Fire**
- Anderson, M. Kat  
2005 *Tending the Wild: Native American Knowledge and the Management of California's Natural Resources*. University of California Press, Berkeley. Chaps 3, pp 62-82
- Crosby, Alfred W.  
2004 *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*. Second Edition ed. Cambridge University Press, Cambridge. Read Chap 7, pp 145-170.
- Dartt-Newton, Deana and Jon M. Erlandson  
2006 Little Choice for the Chumash: Colonialism, Cattle, and Coercion in Mission Period California. *American Indian Quarterly* 30(3 and 4):416-430.
- Lopez, Valentin  
2022 Forward. In *We Are Not Animals: Indigenous Politics of Survival, Rebellion, and Reconstitution in Nineteenth Century California* edited by Martin Rizzo-Martinez, pp. xiii-xv. University of Nebraska Press, Lincoln, Nebraska.
- Timbrook, Jan, John R. Johnson and David D. Earle  
1993 Vegetation Burning by the Chumash. In *Before the Wilderness: Environmental Management by Native Californians*, edited by T. C. Blackburn and K. Anderson, pp. 117-149. Ballena Press, Menlo Park, California.

## Week 7: Implications of American Period Policies on Ecosystems and People

Anderson, M. Kat

2005 Tending the Wild: Native American Knowledge and the Management of California's Natural Resources. University of California Press, Berkeley. Chaps 3, pp 82-121

Goode, Ron W., Stephanie Farish Beard, and Christina Oraftik

2022 Putting Fire on the Land: The Indigenous People Spoke the Language of Ecology, and Understood the Connectedness and Relationship Between Land, Water, and Fire. *Journal of California and Great Basin Anthropology* 42(1):85-95.

Johnson, Eric Michael

2014 Fire Over Ahwahnee: John Muir and the Decline of Yosemite. *Scientific American*  
<http://blogs.scientificamerican.com/primate-diaries/201408/13/fire-over-ahwahnee-john-muir-and-the-decline-of-yosemite/>.

Lightfoot, Kent G.

2005 Indians, Missionaries, and Merchants: The Legacy of Colonial Encounters on the California Frontiers. University of California Press, Berkeley, California. Read Chapter 8, pp 210-233.

Madley, Benjamin

2016 An American Genocide: The United States and the California Indian Catastrophe. Yale University Press, New Haven, Connecticut. Read Introduction, pp 1-15

## Week 8: American Period Ranchers and Timber Owners and Fire

Ortiz, Beverly R. 2018 Ron Goode: A Life Lived in Service to Community and Environment. *News from Native California* 31(3 (Spring):18-26.

Petersen, Jim. 1994. The 1910 Fire. *Evergreen Magazine*, Winter Edition 1994-1995. 6 pages.

Pyne, Stephen J. 2016 California: A Fire Survey. University of Arizona Press, Tucson. Fire use by early California private timber owners. pp 125-154.

Stephens, Scott L. and Neil G. Sugihara 2018 Fire Management and Policy Since European Settlement. In *Fires in California's Ecosystems*, edited by J. W. van Wagtendonk, N. G. Sugihara, K. E. Shaffer, S.L. Stephens, J. Fites-Kaufman and A. E. Thode, University of California Press, Berkeley, California (in press).

Walker, Clinton. 1938, 1939. Correspondence of the Red River Lumber Company, Westwood, CA. 4 pages.

Walker, T.B. 1913. Correspondence of the Red River Lumber Company, Westwood, CA. 2 pages

## Week 9: Fire Suppression Policies of the US Government and State of California

Kenney, Nathaniel. 1956 (3). The green treasury, the National Forests. *National Geographic Magazine*, September, 1956. Pages 287-324.

North, M.P., Tompkins, R.E., Bernal, A.A., Collins, B.M., Stephens, S.L. and York, R.A., 2022. Operational resilience in western US frequent-fire forests. *Forest Ecology and Management*, 507, p.120004.

Stephens, Scott L., Robert E. Martin and Nicholas E. Clinton. 2007. Prehistoric Fire Area and Emissions from California's Forests, Woodlands, Shrublands, and Grasslands. *Forest Ecology and Management* 251:205-216.

Stephens, S.L., Lydersen, J.M., Collins, B.M., Fry, D.L., Meyer, M.D. 2015. Historical and current landscape-scale ponderosa pine and mixed-conifer forest structure in the Southern Sierra Nevada. *Ecosphere* 6(5): 1-20.

#### Week 10: Post-Fire Suppression Practices and Policies

Leopold, S. A., S. A. Cain, C. A. Cottam, I. N. Gabrielson, and T. L. Kimball. 1963. Wildlife management in the National Parks. *American Forestry* 69:32–35; 61–63.

Pyne, Stephen. *California: A Fire Survey*, pgs 167-176. Vignettes of Primitive America.

Sneeuwjagt, R.J., T.S. Kline, and S.L. Stephens. 2013. Opportunities for improved fire use and management in California: lessons from Western Australia. *Fire Ecology* 9(2): 14-25. (doi: 10.4996/fireecology.0902014)

Stephens, S.L. J.W. van Wagtendonk, J.K. Agee and R.H. Wakimoto. 2021. Introduction to the article by Harold Biswell: Prescribed Burning in Georgia and California Compared. *Fire Ecology* <https://doi.org/10.1186/s42408-021-00094-4>

#### Week 11: No Readings (Spring Break)

#### Week 12: Contemporaneous Perspectives about Fire from Native Californian Tribes

Codero-Lamb, Julie, Jared Dahl Aldern and Teresa Romero  
2018 Bring Back the Good Fires. *News from Native California* 31(3 (Spring):14-17.

Fowler, Catherine S., P. Esteves, G. Goad, B. Helmer and K. Watterson  
2003 Caring for the Trees: Restoring Timbisha Shoshone Land Management Practices in Death Valley National Park. *Ecological Restoration* 21(4):302-306.

Lake, Frank K., Vita Wright, Penelope Morgan, Mary McFadzen, Dave McWethy and Camille Stevens-Rumann  
2017 Returning Fire to the Land: Celebrating Traditional Knowledge and Fire. *Journal of Forestry* 115(5):343-353.

Lake, Frank K., and Amy C. Christianson  
2019 Indigenous Fire Stewardship. In *Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires*, edited by Samuel L. Manzello. Springer, Cham. [https://doi.org/10.1007/978-3-319-51727-8\\_225-1](https://doi.org/10.1007/978-3-319-51727-8_225-1).

Long, Jonathan W., Ron W. Goode, and Frank K. Lake  
2020 Recentring Ecological Restoration with Tribal Perspectives. *Fremontia* 48(1):14-19.

Terence, Malcolm  
2016 Unleashing the TREX: Why Officials Think Controlled Burns Can Save California from Wildfire. *North Coast Journal* (<http://www.northcoastjournal.com/humboldt/unleashing-the-trex/content?oid=4132514>).

#### Week 13: Recent Examples of Prescribed Burning and Managed Lightning Fire in California

Kobziar LN, Godwin D, Taylor L, Watts AC.  
2015. Perspectives on trends, effectiveness, and impediments to prescribed burning in the Southern U.S. *Forests* 6: 561–580

Stephens, S.L., Thompson, S., Boisramé, G., Collins, B.M., Ponisio, L.C., Rakhmatulina, E., Steel, Z.L., Stevens, J.T., van Wagtenonk, J.W. and Wilkin, K. 2021. Fire, water, and biodiversity in the Sierra Nevada: a possible triple win. *Environmental Research Communications*, 3(8), p.081004.

Stephens, S.L. S.J. Husari, H.T. Nichols, N.G. Sugihara, and B.M. Collins. 2018. Fire and Fuel Management. In: *Fire in California Ecosystems*, 2nd Edition. van Wagtenonk, J., N.G. Sugihara, S.L. Stephens, A.E. Thode, K.E. Shaffer, and J. Fites-Kaufman (Editors). University of California Press, Berkeley, CA. Pgs. 411-428.

#### Week 14: The Future of Human-Fire Interactions in California: Rethinking the Care of Our Public Lands and the Wildland-Urban Interface

Knapp, E.E., Valachovic, Y.S., Quarles, S.L. and Johnson, N.G., 2021. Housing arrangement and vegetation factors associated with single-family home survival in the 2018 Camp Fire, California. *Fire Ecology*, 17(1), pp.1-19.

Kramer, Heather A., Miranda H. Mockrin, Patricia M. Alexandre and Volker C. Radeloff. 2019. High wildfire damage in interface communities in California. *International Journal of Wildland Fire* 28: 641-650.  
<https://doi.org/10.1071/WF18108>

Marks-Block, Tony, and William Tripp 2021 Facilitating Prescribed Fire in Northern California through Indigenous Governance and Interagency Partnerships. *Fire* 4 (37).<https://doi.org/10.3990/fire4030037>.

Pyne, S. 2017. How California Changed the Way the World Fights Fires. Essay, 5 pages;

Stephens S. L., M. Adams, J. Hadmer. F. Kearns, B. Leicester, J. Leonard, M. Moritz. 2009. Urban-wildland fires: how California and other regions of the US can learn from Australia. *Environmental Res. Letters* 4 014010 5pgs.

#### Week 15: Current California Initiatives Concerning Wildfires. Conclusion

North, M., S.L. Stephens, B.M. Collins, J.K. Agee, G. Aplet, J.F. Franklin, and P.Z. Fulé. 2015. Reform forest fire management: Agency incentives undermine policy effectiveness. *Science* 18: 1280-1281.

Stephens, S.L., B.M. Collins, E. Biber, and P. Fule. 2016. US Federal fire and forest policy: Emphasizing resilience in dry forests. *Ecosphere* 7(11):1-19.

Stephens, S.L. 2017, 2018. Hearing briefings for invited testimony to the California Assembly and California Senate regarding fire and fuels management in California. 8 pages.

## Academic Integrity

You are a member of an academic community at one of the world's leading research universities. Universities like Berkeley create knowledge that has a lasting impact in the world of ideas and on the lives of others; such knowledge can come from an undergraduate paper as well as the lab of an internationally known professor. One of the most important values of an academic community is the balance between the free flow of ideas and the respect for the intellectual property of others. Researchers don't use one another's research without permission; scholars and students always use proper citations in papers; professors may not circulate or publish student papers without the writer's permission; and students may not circulate or post materials (handouts, exams, slides, syllabi--any class materials) from their classes without the written permission of the instructor.

Any test, paper or report submitted by you and that bears your name is presumed to be your own original work that has not previously been submitted for credit in another course unless you obtain prior written approval to do so from your instructor. In all of your assignments, including your homework or drafts of papers, you may use words or ideas written by other individuals in publications, web sites, or other sources, but only with proper attribution. If you are not clear about the expectations for completing an assignment or taking a test or examination, be sure to seek clarification from your instructor or GSI beforehand. Finally, you should keep in mind that as a member of the campus community, you are expected to demonstrate integrity in all of your academic endeavors and will be evaluated on your own merits. The consequences of cheating and academic dishonesty—including a formal discipline file, possible loss of future internship, scholarship, or employment opportunities, and denial of admission to graduate school—are simply not worth it.

**Collaboration and Independence:** Reviewing lecture and reading materials and studying for exams can be enjoyable and enriching things to do together with one's fellow students. We recommend this. However, homework assignments should be completed independently and materials turned in as homework should be the result of one's own independent work. Some assignments, namely the preparation for the debate arguments, are meant to be done together in a group.

**Cheating:** Anyone caught cheating on a quiz or exam will receive a failing grade and will also be reported to the University Office of Student Conduct. In order to guarantee that you are not suspected of cheating, please keep your eyes on your own materials and do not converse with others during the quizzes and exams.

**Plagiarism/Self-plagiarism:** You must be original in composing the writing assignments in this class. To copy text or ideas from another source (including your own previously, or concurrently, submitted course work) without appropriate reference is plagiarism and will result in a failing grade for your assignment and usually further disciplinary action. For additional information on plagiarism, self-plagiarism, and how to avoid it, see, for example: <http://www.lib.berkeley.edu/instruct/guides/citations.html#Plagiarism>(link is external) <http://gsi.berkeley.edu/teachingguide/misconduct/prevent-plag.html>(link is external)

**Academic Integrity and Ethics:** Cheating on exams and plagiarism are examples of violations in the realm of ethics and integrity. Honesty, integrity, and ethical behavior are of great importance in all facets of life. They are so important that it is generally assumed that one has learned and internalized these qualities at an early age. As a result, these issues rarely get explicitly addressed by the time one gets to be a university student. However, it cannot be overstated just how important honesty is to the academic enterprise. Using phones, tablets, computers, or other digital devices during exams is not allowed.

**Turnitin:** UC Berkeley's honor code states "As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others." As a tool to promote academic integrity in this course, written work submitted via bCourses may be checked for originality using Turnitin. Turnitin compares student work to a database of books, journal articles, websites, and other student papers. This creates an opportunity for students to improve their academic writing skills, by ensuring that other sources have been properly cited and attributed. For more information about Turnitin at UC Berkeley, visit <http://ets.berkeley.edu/academic-integrity>(link is external).

[Policy on Academic Dishonesty/ Berkeley Campus Code of Student Conduct](#)(link is external)

[Resources on promoting Academic Integrity](#)

### **Academic Accommodations:**

The purpose of academic accommodations is to ensure that all students have a fair chance at academic success. If you have Letters of Accommodations from the Disabled Students' Program or another authorized office, please share them with me as soon as possible, and we will work out the necessary arrangements. While individual circumstances can vary, requests for accommodations often fall into the categories listed on the Academic Calendar and Accommodations website. The campus has well-developed processes in place for students to request accommodations, and you are encouraged to contact the relevant campus offices listed on the Academic Accommodations Hub (<https://evcp.berkeley.edu/programs-resources/academic-accommodations-hub>). These offices, some of which are confidential, can offer support, answer questions about your eligibility and rights, and request accommodations on your behalf, while maintaining your privacy.

### **Student Advocate's Office [Confidential]:**

Provides free, confidential, student-to-student assistance for undergraduate and graduate students navigating issues with academics, financial aid, accusations of misconduct, instances of harassment and discrimination, and other grievances within the scope of the university.

Phone: (510) 642-6912 | Website: <https://advocate.berkeley.edu/> | Email: [help@berkeleysao.org](mailto:help@berkeleysao.org)

### **Ombuds Office for Students and Postdoctoral Appointees [Confidential]:**

Confidential conflict resolution services, coaching, referrals, clarifying policies and procedures.

Empowering students to make informed decisions with the goal of resolutions that meet their needs.

Phone: (510) 642-5754 | Website: <https://sa.berkeley.edu/ombuds>

### **Syllabus is a Contract and Subject to Change:**

*This syllabus is a contract that you, as an enrolled student in this course, agree to abide by throughout the semester. You agree to complete the assignments in a timely manner in accordance with the schedule printed in the syllabus and to participate in the class using proper student conduct and netiquette. As part of this agreement, your responsibilities are printed clearly within this syllabus with deadlines so that you will know well in advance when readings and assignments are due. The syllabus is also subject to change if deemed necessary by the instructor. You will be afforded ample warning before any new responsibility or assignment is due. Most often, a change to the syllabus will constitute a minor change in reading materials*

*or the cancellation of a day of class. If such a change occurs, a revised syllabus will be made available to students and replace any old copies of the syllabus.*

*The [Basic Needs Center](#) is a virtual & physical hub located in the lower level of the MLK Student Union that supports students' holistic wellbeing through a set of essential programs and services. Our programs include education, prevention & emergency relief for the following areas: food, housing, finances, health, and wellness. All students including undergraduate, graduate, international and undocumented students are eligible for Basic Needs Center resources and services*