

**San José State University**  
**College of Social Sciences, Department of Environmental Studies**  
**ENVS 175, Wildfire Policy and Management, Spring, 2022**

**Course and Contact Information**

Office Location:	WSQ 115C
Telephone:	Email instructor to set up Zoom call (audio or video)
Email:	<a href="mailto:amanda.stasiewicz@sjsu.edu">amanda.stasiewicz@sjsu.edu</a>
Office Hours:	Thursdays- by appointment only ( <a href="#">LINK</a> ) 12:00-2:00pm PT <i>*Other days &amp; times available by email request</i>
Class Days/Time:	T/R- 9:00-10:15
Classroom:	Dudley Moorhead Hall (DMH) 164 <i>*On Zoom until 2/15—See Canvas Page for Zoom Link</i> Canvas: <a href="#">LINK</a>
Office Location:	WSQ 115C
Prerequisites:	Area A (2)- Written Communication and Area D (1) - Human Behavior Or Instructor consent

**Course Description**

Introduction to policies, programs, and approaches to wildfire risk management across international, US federal, state, and local contexts. Students will learn about and employ policy tools used to manage wildfire risk to people and to natural resources across public and private lands during the three phases of wildfire management: (1) prevention/preparation, (2) suppression/evacuation, and (3) recovery. Explore the factors increasing wildfire risk including land use decisions and climate change impacts.

**Course Format**

**Technology Intensive, Hybrid, and Online Courses**

This course is delivered in-person. Lectures will take place twice a week during class time. The course includes a partnership with a fire-prone community and trips to that site for the semester project. There will be at least two opportunities to participate in the weekend trip to the field site, and you will get a day off of in-class time to compensate for the weekend trip(s).

For this course you will need:

- A computer or tablet with typing capabilities
- Microsoft Office Suite and/or the "G-Suite" (Google Docs, Sheets, etc.)
- Adobe Acrobat DC: [Adobe reader download link](#), [Adobe Flash player download link](#), and [Windows Media player download link](#).
- Access to Canvas. Canvas Learning Management system is located at <https://sjsu.instructure.com/>
  - Basic computer specifications for Canvas: <https://guides.instructure.com/m/4214/1/82542-what-are-the-basic-computer-specifications-for-canvas>
  - Browsers supported by Canvas: <https://guides.instructure.com/m/4214/1/41056-which-browsers-does-canvas-support>

## Course Goals

Every year it seems wildfires get worse in the West! How do we solve the wildfire problem? What are governments doing to protect people and natural resources? And finally, what is holding us back?

This course is designed to give you a broad understanding of the evolving wildfire problem and the ways we address wildfire risk management across different social and ecological contexts in California, the US, and the world. We will cover government-based and individual approaches to wildfire risk management (e.g., formal mandatory programs to voluntary/education-based programs). Topics will include federal laws important for wildfire management, agency wildfire management policy, the role of state natural resource organizations in fire management, state policies and programs for addressing wildfire risk, and the role(s) of local government (e.g., planning and zoning) in fostering or inhibiting wildfire adaptation. We will also cover: 1) important aspects of human behavior and social characteristics that influence risk decision-making during active fire management, wildfire prevention, and individual and family evacuation; and 2) typical ecological impacts of the wildfire management decisions we make.

The goal of this course is to give you an understanding of the complexity of the wildfire problem by exposing you to the social/policy dimensions that influence how we frame and address wildfire. Part of the course will include a semester-long project with a community or fire organization to give you practical experience with fire adaptation processes or initiatives. This course explores the implications of increased wildfire and our current wildfire policy on 1) vulnerable and underserved communities, especially communities of color, and 2) natural resources and biodiversity.

## Department of Environmental Studies Program Learning Outcomes (PLO) and associated University Learning Goals (ULG)

This course supports student progress toward these Department Learning Outcomes which are essential for a literate Environmental Studies graduate:

*PLO 1 - Qualitative Environmental Literacy:* Students are able to write a logical analytical paper using good writing style and construction supported by appropriate research. (ULG 2 -Broad Integrative Knowledge; ULG 4 - Applied Knowledge)

*PLO 3 - Content Environmental Literacy:* Students will develop proficiency in the interdisciplinary sustainability principles that are the foundation of environmental studies; they will know the key environmental challenges facing the planet, know relevant interdisciplinary information about these challenges, and be able to develop/identify feasible solutions (ULG 2 - Broad Integrative Knowledge; ULG 4 - Applied Knowledge; ULG 5 - Social & Global Responsibilities)

## Course Learning Outcomes (CLO)

This course also has specific learning outcomes. Upon successful completion of this course you will be able to:

- (1) Describe historical and current perceptions of wildfire and their influence on wildfire policy development in the context of North American history and social institutions, including national, state and local governments, various publics, and the media.
- (2) Identify the major policies and approaches to addressing wildfire risk in the US
- (3) Critically examine different wildfire contexts and explain the social, ecological, and economic pros and cons of wildfire adaptation strategies for that situation, including their impacts on underserved/vulnerable populations and biodiversity/natural habitats.
- (4) Explain the different collaborative or cooperative approaches to dealing with wildfire risk across different landscapes.
- (5) Develop relevant skills you will need to implement wildfire adaptation strategies on-the-ground.

Other learning outcomes:

- (1) Communicate effectively by listening actively and then formulating, articulating, and explaining ideas clearly using oral and written techniques.
- (2) Learn to find, effectively use and avoid plagiarizing legitimate information sources, including government websites and peer-reviewed literature.

## Required Texts/Readings

Textbook-none

## Course Requirements and Assignments

- (1) **Journal entries (~30%, 10 points each, 160 points)** – at least once a week, you will complete a journaling activity to reflect on what you've learned. It may be a drawing, painting, digital art, concept map, PowerPoint slide, photo or newspaper collage, handwritten journal, typed, or take another format that demonstrates you grappling with course material. You will usually get class time to do this, but you may also be asked to work on it outside of class (e.g., watch a video or read an article and do an entry). You can turn in a physical copy in-person or a virtual version and will be graded on the quality of the reflection.
- (2) **Fire Size Up (~11%, 60 points)** – You will write a 3-5 page report on a recent (2020 or 2021 wildfire season) or significant wildfire (can be older, but stick to 2000 or later) that provides a clear picture of the fire event across the biophysical, operational/fire response and coordination, and social impacts contexts. You may consult NIFC reports, InciWeb, CalFire, and media resources to analyze resource allocation and wildfire management decisions, challenging biophysical contexts or conditions, and emergency management issues. You are encouraged to leverage information from agency or local resources regarding suppression priorities and areas of concern/interest (especially maps!). Another good source of information will be community meetings (e.g., YouTube) or after action/Grand Jury reports. You will also summarize community/resident responses and evacuation experiences in your study area by searching for media coverage, books, or documentaries related to your fire event.
- (3) **Current Wildfire Bill Write-Up (~9%, 50-points)** - you will be split into two groups and will each (within the group) pick a different wildfire bill (proposed) or recent law from the last 5 years. You are responsible for writing up a 1-2 page paper on the legislation and posting it to the class discussion thread. Figures are encouraged. References are required. You will respond to 2 other group members' thread posts and use class time to discuss the pros and cons of the different policy proposals.
- (4) **Home ignition zone (HIZ) assessment (~7%, 40 points)** - you will find a property to perform a HIZ assessment of. The inspection can be done in-person or virtually (e.g., by video chatting to tour the property). If you do not know anyone living in the wildland-urban interface, you can do a road survey of a property you pass frequently. For this activity, you will use different inspections sheets/evaluation tools (i.e., NFPA/FAC-SAT, CalFire, video, Sustainable Defensible Space) to conduct iterative HIZ inspections. You will respond to reflection questions after each step.
- (5) **CWPP critique (~15%, 80 points)** - You will be paired in teams of two (2) and each select a Community Wildfire Protection Plan (CWPP). You will critique the individual plans and then compare them to each other to examine (1) the diverse uses of CWPPs, (2) different wildfire adaptation needs or foci at the local-level, and (3) the pros and cons of using CWPPs as a wildfire adaptation strategy.
- (6) **Wildfire policy report (~9%, 50 points)** - You will write a 1-2 page brief on a topic within wildfire management that you are interested in and explore it in-depth (e.g., prescribed fire, home hardening, Firewise/FireSmart communities, fuel reduction, suppression tactics, post-fire restoration, wildfire disaster relief programs, planning and zoning). You will provide a summary of the topic, including how the topic is supported or funded, the costs of or legal challenges to implementation, and the benefits of the initiative of interest. This policy/adaptation tool can be an international, federal, state, private-sector, or local initiative.
- (7) **Final project process & write up (~22%, 120 points)** – During the semester you are going to be responsible for collecting interview data, and potentially participatory observation data, to build towards a final report on current wildfire issues. At a minimum, you will need to conduct interviews with (1) a

land manager or emergency professional who you believe has some kind of tie to wildfire (most do!), and (2) a WUI resident. Finally (3), you will need to attend or view a recent recording of a meeting on wildfire by any administrative unit (e.g., state assembly, NIFC, county, LFD, town, HOA). The project will include a final report on the topic we are addressing, analysis of the data collected as a class, and use of the data and information that you collect to make suggestions about conceptualizing and addressing wildfire risks.

Your success in this course requires you to spend three hours per unit per week (9 hrs/week) for instruction, preparation/studying, or course related activities. Readings and lecture time will not take up this entire time. Please use this time to study for quizzes and work on your assignments.

### Final Examination or Evaluation

The final evaluation is based on the semester-long project (see Course Assignment #7: Final project write up). The final report will include a summary/background of the issue and site context, data analysis, and recommendations for fire adaptation in the study area and is due by the end of the day on our final exam day.

### Grading Information

A rubric will be provided for every assignment on Canvas.

### Determination of Grades

- Letter grades are assigned as follows:

<i>Grade</i>	<i>Points</i>	<i>Percentage</i>
<i>A plus</i>	<i>518 to 540</i>	<i>96 to 100%</i>
<i>A</i>	<i>502 to 517</i>	<i>93 to 95%</i>
<i>A minus</i>	<i>486-501</i>	<i>90 to 92%</i>
<i>B plus</i>	<i>464-485</i>	<i>86 to 89 %</i>
<i>B</i>	<i>448-463</i>	<i>83 to 85%</i>
<i>B minus</i>	<i>432-447</i>	<i>80 to 82%</i>
<i>C plus</i>	<i>410-431</i>	<i>76 to 79%</i>
<i>C</i>	<i>394 to 409</i>	<i>73 to 75%</i>
<i>C minus</i>	<i>378 to 393</i>	<i>70 to 72%</i>
<i>D plus</i>	<i>356 to 377</i>	<i>66 to 69%</i>
<i>D</i>	<i>340 to 355</i>	<i>63 to 65%</i>
<i>D minus</i>	<i>324 to 339</i>	<i>60 to 62%</i>

- Late submission of assignments will result in a 10% reduction of grade for the first day late, and 50% thereafter.
- Written assignments will be graded on accuracy of content, quality, effectiveness of message and presentation, diction, punctuation, correct citations, and spelling.

### University Policies

There are several University Policies that will frame our work together. We will go over these policies and our expectations of each other on the first day of class, and we will update the syllabus as needed with these rules to guide our work together. The framework of policies that represent the backbone of our semester can be found here: [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), and cover topics such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources). In addition, please always feel free to contact me if you cannot find a resource or information you are interested in, and I will be happy to assist you. More information on portions of these resources that are particularly relevant can be found in the following sections.

### Resources

**Accessible Education Center:** If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with AEC to establish a record of their disability. Academic Senate Policy F06-2. Please reach out to me if you have any concerns or questions about this process.

**Writing Center:** Many of our assignments are written. **You are graded portion of each graded assignment is grammar, spelling, and the clarity of the ideas you present.** It is expected that all the assignments you hand in are your original work. I encourage you to utilize peer review (partner with a classmate to edit each other's papers) and the additional resources available to you at SJSU. The San José State University Writing Center offers a variety of resources to help students become better writers, and all of their services are free for SJSU students.

“Our mission is to enhance the writing skills of SJSU students so they can communicate clearly in any setting (informal, academic, or professional). We accomplish this goal through creating original writing resources, offering workshops, and conducting one-on-one and small-group tutoring sessions.

The SJSU Writing Center has two locations: We conduct drop-in tutoring sessions in Clark Hall, Suite 126; we conduct scheduled appointments on the second floor of the MLK Library. We also offer online tutoring sessions using the Zoom web conferencing platform. All appointments can be made online at [sjsu.mywconline.com](https://sjsu.mywconline.com) ([Links to an external site.](#)). All our writing tutors have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment, register for a workshop, or to refer to the numerous online resources offered through the Writing Center, visit the [Writing Center website](#)”

### **Land Acknowledgement**

We acknowledge the land on which SJSU rests as the traditional home of the Puichon Ohlone-speaking people and the present day Muwekma Ohlone Tribe. The Puichon Ohlone were missionized into both missions Dolores and Santa Clara. The present-day Muwekma Ohlone Tribe is comprised of all known surviving Native American lineages aboriginal to the San Francisco Bay region who trace their ancestry through the Missions San Jose, Santa Clara, and Dolores and the historic federally recognized Verona Band of Alameda County. In the Muwekma Ohlone language, Cocenyoy: Muwekma means “the people.” Without them, we would not have access to this gathering. We take this opportunity to thank the original caretakers of this land.

# ENVS 175: Wildfire Policy and Management, Spring 2022, Course Schedule

\*Our schedule is subject to change. Changes to assignments, readings, or due dates will occur at least 1 week in advance or as optional/supplementary materials. We will discuss these changes in advance during lecture time, and you will be notified/reminded of these changes via email/a Canvas announcement. Updates and assignments will always be posted to the syllabus on our Canvas page and announced in-class.

## Course Schedule

Week	Topics	Readings, Assignments
<b>The Wicked Wildfire Problem</b>		
<b>Week 1</b> (1/27)	Getting to know you and intro to wildfire	Getting to know you discussion post
<b>Week 2</b> (2/1)	Intro to wildfire continued; Defining the wildfire problem (part 1)	<b>Read:</b> Carroll, M. S., Blatner, K. A., Cohn, P. J., & Morgan, T. (2007). <a href="#">Managing fire danger in the forests of the US inland northwest: a classic “wicked problem „in public land policy.</a> <i>Journal of Forestry</i> , 105(5), 239-244.  Tedim and Leone 2020. <a href="#">The Dilemma of Wildfire Definition: What it Reveals and What it Implies</a>
(2/3)	Defining the wildfire problem	Fire Ecology Activity Fire Ecology Discussion Same as last class
<b>Wildfire Policies Across Time</b>		
<b>Week 3</b> (2/8)	Wildfire policies: 1880-1920—forest management and fire protection responsibility	<b>Read:</b> Pyne, Stephen. America’s Fires: A Historical Context for Policy and Practice. Pp. 20-45
(2/10)	Wildfire policies: 1920-1970-the dissolving dream of winning the war on fire: the suppression era	<b>Read and/or listen to:</b> “This is not the California I married” --note the different problem definitions throughout and come to class ready to discuss
<b>Week 4</b> (2/15)	Wildfire policies: 1970-2000	<b>Readings:</b> <i>None</i>
(2/17)	Wildfire policies: 2000-present	<b>Required readings:</b> The National Wildland Fire Cohesive Management Strategy (CMS 2014)  <b>Assignment:</b> group slides summarizing CMS sections to be presented next class.  <b>Optional readings:</b> <ul style="list-style-type: none"> <li>• Steelman and DuMond (2009). Serving the Common Interest in U.S. Forest Policy: A Case Study of the Healthy Forests Restoration Act</li> </ul>

		<ul style="list-style-type: none"> <li>Schultz, C. A., Jedd, T., &amp; Beam, R. D. (2012). The Collaborative Forest Landscape Restoration Program: a history and overview of the first projects. <i>Journal of Forestry</i>, 110(7), 381-391.</li> </ul>
<b>Week 5</b> (2/22)  (2/24)	Return/restore to what? TEK in wildfire management	<p><b>Read:</b></p> <ul style="list-style-type: none"> <li>Wynecoop, M. D., Morgan, P., Strand, E. K., &amp; Trigueros, F. S. (2019). Getting back to fire sumés: exploring a multi-disciplinary approach to incorporating traditional knowledge into fuels treatments. <i>Fire ecology</i>, 15(1), 1-18.</li> </ul> <p><b>Optional:</b> Tending the Wild. Chapter 12: Restoring landscapes with Native knowledge</p>
	TEK continued	<p><b>Reading:</b> TBA</p> <p><b>Assigned: Fire Size Up Assignment</b></p>
<b>What are Fire-Adapted Communities?</b>		
<b>Week 6</b> (3/1)  (3/3)	Public perceptions of wildfire treatments on public lands: barriers and solutions?	<i>Wildfire Risk</i> Chapter 2
	Defining the WUI  Risk to what and for who? Resident risk perceptions	<p><b>Readings:</b> Brenkert-Smith et al. (2012). Trying Not to Get Burned: Understanding Homeowners' Wildfire Risk–Mitigation Behaviors</p> <p><b>Optional:</b> Champ et al. (2015). Understanding Gaps Between the Risk Perceptions of Wildland-Urban Interface (WUI) Residents and Wildfire Professionals</p> <p><b>Assigned: HIZ assignment</b></p>

<p><b>Week 7</b> (3/8)</p> <p>(3/10)</p>	<p>Risk to what and for who? Resident risk perceptions</p>	<p><b>Readings:</b> Brenkert-Smith et al. (2012). Trying Not to Get Burned: Understanding Homeowners' Wildfire Risk—Mitigation Behaviors</p> <p><b>Optional:</b> Champ et al. (2015). Understanding Gaps Between the Risk Perceptions of Wildland-Urban Interface (WUI) Residents and Wildfire Professionals</p> <p><b>Assigned: HIZ assignment</b></p>
	<p>Towards a world where communities co-exist with fire</p>	<p><b>Readings:</b></p> <p>(1) Paveglio, T. B., Moseley, C., Carroll, M. S., Williams, D. R., Davis, E. J., &amp; Fischer, A. P. (2015). Categorizing the social context of the wildland urban interface: Adaptive capacity for wildfire and community “archetypes”. <i>Forest Science</i>, 61(2), 298-310.</p> <p>(2) Paveglio, T. B., Carroll, M. S., Stasiewicz, A. M., Williams, D. R., &amp; Becker, D. R. (2018). Incorporating social diversity into wildfire management: Proposing “pathways” for fire adaptation. <i>Forest Science</i>, 64(5), 515-532.</p>
<p><b>Week 8</b> (3/15)</p> <p>(3/17)</p>	<p>Collaborative planning and community-focused approaches: CWPPs</p> <p>Market-based “solutions” (insurance, taxes, cost-share, state policies and programs)</p>	<p><b>Reading:</b> Jakes and Sturtevant (2013). Trial by fire: Community Wildfire Protection Plans put to the test. <i>International Journal of Wildland Fire</i>.</p> <p><b>Due: HIZ assignment</b></p> <p><b>Reading: TBA</b></p>
<p><b>3. Safe and Effective Wildfire Response</b></p>		
<p>(3/22)</p>	<p>Wildfire Suppression: from reporting to suppression (initial attack, extended attack, tactics/air support)</p>	<p><b>Reading: TBA</b></p>
<p>(3/24)</p>	<p>Suppression costs and issues—guest lecture</p>	<p><b>Due: CWPP project - March 27th</b></p>
<p><b>Week 9</b> (Mar 28-April 1)</p>	<p><b>SPRING BREAK~ No CLASSES!</b></p>	
<p><b>Week 10</b> (4/5)</p>	<p>Is Wildfire Management in the US Sustainable?</p>	<p><b>Reading:</b> Steelman and Burke. 2007. <a href="#">Is wildfire policy in the United States sustainable?</a> <i>Journal of Forestry</i></p> <p><b>Assigned: Current Wildfire Bill Assignment</b></p>
<p>(4/7)</p>	<p>Wildfire Evacuation</p>	<p><b>Reading:</b> Strahan, K., Whittaker, J., &amp; Handmer, J. (2018). Self-evacuation archetypes in Australian bushfire. <i>International journal of disaster risk reduction</i>, 27, 307-316.</p>
<p><b>Week 11</b> (4/12)</p>	<p>Evacuation case studies: Canada</p>	<p><b>Reading:</b> Workeye Asfaw, H., Sandy Lake First Nation, et al. 2019. Evacuation preparedness and the challenges of emergency evacuation in Indigenous communities in</p>

(4/14)		Canada: The case of Sandy Lake First Nation, Northern Ontario
	Evacuation: Australia's Black Saturday Fires	Whittaker, et al. (2013). Community safety during the 2009 Australian 'Black Saturday' bushfires: an analysis of household preparedness and response.  <b>Due: Current Wildfire Bill</b>
<b>4. Post-Wildfire/ Recovery</b>		
<b>Week 12</b> 4/19	Temporal aspects of wildfire adaptive capacity	<b>Reading:</b> (1) Fleming, C. J., McCartha, E. B., & Steelman, T. A. (2015). Conflict and collaboration in wildfire management: the role of mission alignment. <i>Public Administration Review</i> , 75(3), 445-454.
	4/21	<b>Due: Final Project Interviews &amp; Meetings must be completed and the information added into the class spreadsheet</b>
	What about smoke? Exposure and health impacts...	<b>Reading:</b> TBA
<b>Week 13</b> 4/26	Post-fire recovery: Disaster declarations, disaster relief, FEMA, programs, preparing for the next fire event	<b>Reading:</b> McGee, T. K., McCaffrey, S., & Tedim, F. (2020). Resident and community recovery after wildfires. In <i>Extreme Wildfire Events and Disasters</i> (pp. 175-184). Elsevier. <a href="#">Available online</a>
	4/28	Post-fire recovery and coupled-hazards: Burned Area Emergency Response Teams and post-fire restoration  <b>Assigned: Wildfire Policy Brief</b>
<b>Week 14</b> 5/3	Camp Fire Case Study	<b>Reading:</b> Edgeley, C. M. (2021). Exploring the social legacy of frequent wildfires: Organizational responses for community recovery following the 2018 Camp Fire. <i>International Journal of Disaster Risk Reduction</i> , 102772.
	5/5	Special topics  <b>Reading:</b> TBA  <b>Due: Wildfire Policy Brief</b>
<b>Week 15</b> 5/10	Special topics	<b>Reading:</b> TBA
	5/12	Final Project Workday
Final Exam	Final Project due on the day of our final exam, <b>Wednesday, May 18<sup>th</sup></b>	<i>Submit your final write up and reflection essays to Canvas</i>