Project: Wildfire smoke risk awareness assessment for PSU-EM and PBEM

ANTH 412-512, Fall 2025

Rationale

In an educational environment deeply influenced by new technological developments in artificial intelligence, students and educators must adapt curriculum to emphasize skills needed for the future. Such skills include planning for unforeseen events and gathering information from living individuals.

This term, students are asked to create deliverables that they will present to our community partners, Tiara Halsey, the Director of Emergency Management at Portland State University (https://www.pdx.edu/emergency-management/) and Jeremy Van Keuren, Community Preparedness Manager at the Portland Bureau of Emergency Management (https://www.portland.gov/pbem). This work will be done under the guidance of Dr. Elizabeth Briody with the Anthropology Career Readiness Network (ACRN), an initiative of the Consortium for Practicing and Applied Anthropologists (COPAA).

This term, students in Anth 412/512 will learn ethnographic research methods for gathering and analyzing qualitative data. To put their skills to use for our community, students will undertake a course-based research project to understand people's awareness of and preparedness for air quality hazards related to wildfire smoke. As Portlanders learned during the 2020 Labor Day Wildfire Smoke Emergency, our community is now vulnerable to an emerging threat about which many in our population know little and for which emergency managers in our area now need to prepare.

The course-based research approach encourages students to employ their academic know-how while honing practical skills and professional competencies. This assignment develops collaborative planning and implementation talents that applied social scientists use regularly in non-profit, activist, business, and government environments. Artificial intelligence cannot easily replace these crucial skills.

Assignment

This term, students in Ethnographic Methods will work with PSU-EM and PBEM on an applied anthropological project to assess community awareness of risks related to wildfire smoke. Students will compare wildfire awareness between Portland residents who did and did not experience the Labor Day 2020 wildfire smoke event. In the process, they will ask community members what risks they perceive related to wildfire smoke and what information and services they would expect from campus and city emergency managers in the event of future wide-spread smoke in the air. We will refine and specify the goals of the research in conversation with our community partners. The project will help emergency managers shape messaging and prepare services for future air quality emergencies.

Our goal is to provide at the end of the term a presentation and written "deliverable" reporting the results of our ethnographic investigation. We will use insights from the anthropology of disaster to complete this course-based research project. In conversation with PSU-EM, PBEM, and the instructor, the students themselves will, as part of the project, determine the parameters of their work and the topics and nature of the "deliverable" that the class will hand over at the end of the term. Students will learn practical strategies for working in groups. Students will acquire experience in applying theory to practice while contributing to campus and community resilience and preparedness.

Our course-based research experience will evolve throughout the term. This sheet provides a project timeline; separate assignment sheets will cover specific exercises in more detail.

Timeline

- Week 2: Meet with community partners to discuss project and decide on research questions
- Weeks 2-7: Library research for project; preliminary and annotated bibliographies
- Week 5: Midterm discussion with community partners about research questions, design, sampling, and methodology
- Weeks 4-8: Gather and analyze ethnographic data
- Week 9: Present preliminary findings to community partners (5%)
- Exam week: Final presentations to community partners (10%), written deliverable (15%), and individual reflection essay (10%)

Resources

As part of their library research project, students will find scholarly resources on the location, population, topic, and theory related to risk assessment for wildfire smoke. A librarian will introduce students to a variety of library search features that students can use to access materials from the Millar Library. The instructor will provide a preliminary bibliography, to which students will add materials (with annotations) as they locate them.

Through PSU's IT program, students will have access to Atlas.ti, software for sharing, organizing, and coding qualitative data.

Learning Outcomes met through this assignment

1. **Communication**. Students will master communication in a number of modalities
    a. **Writing**.
        i. Students will demonstrate a sophisticated ability to find, analyze, synthesize, evaluate, and use theories, scholarly writings, and anthropological data from academic sources in their own writing and research.
        ii. Students can at a professional level present data and formulate coherent, persuasive arguments based on original research.
        iii. Students will demonstrate mastery of the writing conventions suitable for their chosen subfield of anthropology and for their chosen presentation milieu, which may include research proposals, reports, applied deliverables….
    b. **Numeracy**. Students can design and develop tables, charts, graphs, and maps and present scientific data through appropriate means of scientific illustration. They can choose and employ appropriate software to generate these materials.
    c. **Oral, visual, and video presentation**. Students will demonstrate mastery in presenting information orally (with and without visual support such as PowerPoint), visually, and/or in video format. They should understand how to target their communications for specific audiences, including specialists and non-specialists. They should be able to facilitate discussions and work in groups.
    d. **Ethics**
        i. Student writing will illustrate the appropriate format for citing referencing primary and secondary source material. Students will understand and apply the

principles of academic honesty codified in the Anthropology Department's Statement on Academic Honesty.

ii. Students will evaluate the effects of their communications, particularly regarding impacts on the groups of people being represented.

2. **Critical thinking**. Students should show mastery of analytic thinking. They should be able to evaluate the reliability of their sources and place them within intellectual traditions. They should be able to deploy evidence to support or refute arguments, choose theoretical frameworks to analyze data, synthesize materials from different sources, and craft, critique and evaluate conclusions.
3. **Professional competence and conduct**. Students should have mastery over the materials …, and they should exemplify professional demeanor in their interactions with their peers, their clients, and the public.
    a. Students will show mastery of anthropological methods as appropriate to their chosen subfield, demonstrated by applying skills from one or more methodology courses to generate and analyze primary data for their thesis and/or other presentations, deliverables, or reports.
    b. Students will demonstrate an understanding of how the interplay between theory, research questions, methods, and data shapes our knowledge and/or interpretations ….
    c. Students will show they understand the relevance of anthropology in and to contemporary public issues and engagement.
    d. Students should know how to apply their anthropological skills and knowledge in professional settings.
        i. Students will know how to conduct themselves maturely in educational and professional settings when presenting, teaching, and doing research.
        ii. Students will show mastery of goal setting, efficiency, time management, and effective communication skills
        iii. Students will develop interpersonal skills and etiquette such as the ability to interact appropriately and ethically in group work and community engagement.
4. **Research.** Students should show mastery of research in the following modalities
    a. **Library research and information literacy skills**. Students should demonstrate the ability to identify the parameters and key concepts and theorists in a learning community or intellectual discourse; locate information using library resources (search engines, key words, Boolean operators); and write a literature review. They will assess the quality, relevance, usefulness, reliability, and validity of information gathered from scholarly and other sources.
    b. **Research design and methodology**. Students should show mastery of the skills needed to conceptualize and implement an independent research project with a minimum of supervision and direction. Students can apply their knowledge to craft appropriate research questions, perform original research, generate primary data, and analyze the resulting information. They can select and employ methodologies appropriate to the task; these methods may include qualitative research methods (e.g., interviewing skills, focus group facilitation, and fluency in a foreign language) and/or quantitative research methods (e.g., statistical and special analysis and mastery of associated software (SPSS, GIS)).
    c. **Research ethics**. Students should demonstrate the ability to identify and mitigate ethical risks when dealing with archaeological materials and human and animal subjects. They should show mastery of professional, legal, and ethical codes that govern such interactions.