



## **Course Information**

Location: Online

Meeting Time: Tuesday 2-330pm via Zoom; Thursday part will be conducted asynchronously via Blackboard, except as otherwise noted.

**Instructor:** John Duffy, [jduffy@alaska.edu](mailto:jduffy@alaska.edu), 907-830-7307; office and discussion hours: by appointment.

## **Course Description**

This course considers basic principles that govern sustainability, resilience and change of linked ecological-social systems. The fundamentals of these concepts as they have developed in various disciplinary fields and through interdisciplinary inquiry are considered in course discussions. We then investigate how these concepts are related through Zoom-based and Blackboard-based discussions that are both instructor and student-directed.

The readings and discussions will emphasize societal goals, tradeoffs, drivers of stability and change, thresholds, feedbacks and interactions, emergent properties, and temporal and spatial scales. Sustainability science, social-ecological resilience theory, and vulnerability analysis are some of the general frameworks addressed. One purpose of the course is to study the problem-solving implications of interdisciplinary thought and practice. Although the study of complex adaptive systems requires interdisciplinary organization, the focus here will be on understanding the problem. Apart from the theoretical frameworks presented and discussed, we hope to explore the opportunity for practical application of course topics and how theory structures observations and informs research and design of “ideal” solutions to real-world problems, and how those solutions face the realities of power and politics. Through all of the discussions we will also look at the way that different disciplines describe people, places, and ecosystems, and stress the common ground that integrates across disciplines.

## **Course Goals/Learning Objectives**

- Acquire a basic understanding of complexity, systems-thinking, and social-ecological systems
- Develop a conceptual framework for exploring sustainability and resilience
- Develop skills applying basic principles to the analysis of real-world issues related to resilience and sustainability
- Apply these principles through student led projects, focusing on integrating social, cultural, economic and ecological dimensions of systems.

**Technology Requirements** The course requires that you have a current/active UA Username and password. Visit the UAF Office of Information Technology for more information: <https://www.alaska.edu/oit/servicecatalog/#id=225>

The course also requires you to have a computer with internet connectivity and the most current versions of the following:

- Web browsers [Internet Explorer](#) 10, [Chrome](#) and [Firefox](#)
- Operating System Windows 7 or higher
- Latest update of [Java](#)
- Review [Blackboard Collaborate for First Time Users](#), If MAC user, download [Blackboard Collaborate Launcher](#)

#### Blackboard & Distance Delivery

We will use the UAF Blackboard site for this course to send emails and post readings, assignments and other materials. Blackboard can be accessed at <https://classes.alaska.edu/> . Email notification through Blackboard will not work for a non-UAF email address. **If you principally use a non-UAF email service, (such as yahoo) go to your UAF account and forward your UAF email to that address. You are responsible for all emails sent to your UAF email account.** Blackboard resources, links and support information are available at the UAF Blackboard homepage.

#### Remote Access

Students in the course may be based in Fairbanks and other sites. We will connect with one another via Zoom and Blackboard. If you require remote access or are away from town without internet access, contact the instructor. For questions with Zoom connections, contact Steve Peterson: (907) 474

**Assignments/Grades/Requirements**

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instructor prior to commencement. The lead discussion will be graded in accordance with the lead discussion rubric.

Final project: The final project consists of the preparation of a Final Paper on a topic related to sustainability of the student's choosing. The paper should be written using the typical sections found in a peer-reviewed journal article and not exceed 5,000 words in length; shorter is better as long as the topic is covered sufficiently. A 20 to 30-minute presentation to the class using a PowerPoint (or similar) via Zoom is also required.

Students are encouraged to discuss the proposed presentation and final paper topic with the instructor prior to commencement. The presentation will be graded in accordance with the presentation and final paper rubrics. An abstract and annotated outline of the final paper is due **October 12<sup>th</sup>, 12p.m. Midnight**. The purpose of the outline is to "*get you thinking, as time marches on.*"

Style/citations: Use APA 7<sup>th</sup> Ed. See: <http://owl.english.purdue.edu/owl/resource/560/01/> All papers should have a title, author and use 1.5 line spacing, 1 inch margins and a Arial, Cal5mJD 6BDC q0.enBT

Videos: Some sessions will include one or more videos for review. These videos are posted within the Session folder.

### **Course Outline and Schedule**

Each Session consists of 1 week with two class meeting times. We will meet via Zoom on Tuesday of each week. The Thursday part of the Session will be conducted asynchronously via Blackboard, *which means the materials, assignments, etc. will become available each Tuesday morning. All weekly assignments are due by Monday, 12 midnight prior to the beginning of the new weekly session.* Please consider this course outline as being fluid so that it may be responsive to student interests and to ideas that develop during class discussions.

### **Course Schedule, Readings, and Assignments**

Session	Dates	Topic	Readings
1	8/25 & 8/27	Introduction	

Session	Date	Topic
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14. What are the 2 or 3 main findings or conclusions of the article? Did the research support these findings?

Sources:

Boote, David N. & Peile, Penny. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*. 34(6). ProQuest Psychology Journals

Center for Teaching and Learning. *How to Critique a Journal Article*.

<http://www.uis.edu/ctl/writing/documents/jrnlcrtq.pdf> Accessed October 29, 2011.