

**Instructor:** Jennifer Griswold

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Class Times: Tues-Thur Noon to 1:15

Class Location: MSB 100

Course Web address: [http://jenniferdsmallphd.com/MET\\_102.html](http://jenniferdsmallphd.com/MET_102.html)

**Course Description**

This course is designed to give you an overview of the interface between the observed Weather and Climate of the Pacific Island region and the past and future the culture of the peoples of the Pacific Islands. You will learn about the Earth’s atmosphere, temperature, precipitation, winds, storm systems, hurricanes, tornadoes, air pollution, weather and agriculture, rainbows, and climate change. As we learn about each weather or climate topic we will view these natural phenomena through the cultural lenses of the native peoples of the Pacific region through the historical writings and poetry, music, dance and films of Native Hawaiian and Indigenous Pacific Islanders.

**Lecture Topic Schedule**

All reading material will be provided in PDF format through Lulima and the Class Website.

<b>Week</b>	<b>Date</b>	<b>Topic</b>
1	8/25	Weather and Climate Topics, Intro to Islands
	8/27	Weather and Climate in the Hawaiian Context
2	9/1	Temperature and Clothing
	9/3	Pacific Natural Environment
3	9/8	Rising Air, Humidity & Clouds
	9/10	Pacific Ocean Clouds and Island Effects,
4	9/15	Precipitation Processes and Types
	9/17	Precipitation Across the Pacific
	TBD	Weekend Field Trip
5	9/22	Pressure and Wind
	9/24	Global and Pacific Regional Patterns
6	9/29	Local Winds
	10/1	Hawaiian and Pacific Island Winds and Travel
7	10/6	Ocean Currents and Waves
	10/8	Hawaiian and Pacific Island Currents & Waves
8	10/13	Review for Midterm
	10/15	<b>Cumulative MIDTERM EXAM</b>
9	10/20	Fronts and Mid-Latitude Storm Systems
	10/22	Historical Impacts of North Pacific Storms
10	10/27	Thunderstorms and Tornadoes: Global vs. Pacific
	10/29	Severe Weather in the Pacific
11	11/3	Hurricane and Typhoon Formation
	11/5	Case Studies of Historical and Recent Hurricanes and Typhoons
12	11/10	Air Pollution and Quality – City vs. Remote
	11/12	Pacific Air Pollution: Vog, Fires and Nuclear Tests
13	11/17	Atmospheric Optical Phenomena
	11/19	Mirages and Cultural Contexts
14	11/24	Pacific Island Climate Types
	11/26	THANKSGIVING BREAK
15	12/1	Climate, Agriculture & History
	12/3	Climate Change – Pacific Island Vulnerability
	TBD	Weekend Field Trip
16	12/8	Sea Level Rise – Impacts and Mitigation
	12/10	Last Day of Class – Review for Final
17	12/15	<b>FINAL EXAM – Noon – 2 pm in room MSB 100</b>

## **Basic Course and Classroom Conduct**

1. Cell phones/iPods/etc. will remain off while in class or you will be asked to leave class.
2. Dropping the class is your responsibility. If you forget to drop the class formally, you will receive an F grade.
3. Cheating will result in a failing class grade.

## **Attendance Policy – 50 points (10% of your grade)**

Attendance is mandatory and will be taken each class and counts towards your grade. Students not in attendance on the first day will be dropped as a “no-show” if there are waitlisted students. Due to in-class presentations and presentations by quest speakers and performers it is imperative that you attend class. If your **excused** absence prevents you from turning in an assignment on its due date then you must turn in the work at the beginning of the next class you attend.

## **Reading Assignments**

In order to succeed in this class, reading should be considered an ongoing homework assignment. Completing reading assignments will prepare you for exams, assignments and projects. There is no one book that is ideal for this type of cross discipline course. Therefore, all reading will be presented as pdf files on Lualima and on the class website.

## **Exams – Midterm and Final**

One midterm exam will be given, worth **20%** of your grade and one Final worth **30%**. Exams will be based on lecture and assigned reading. They will include matching, fill in the blank, multiple choice and essay style questions. You may not make up any exams (unless cleared with me beforehand). If you arrive late, you will not be given extra time to complete the exam. Exams will typically be announced as a reminder one week beforehand, they are already listed in the class schedule. If you would like additional help focusing on what you need to know for the exam, please see me during office hours or email me with specific questions. The practice of using cell phones to provide answers on exams has become prevalent. Therefore there will be no cell phones allowed in the class during an exam.

## **Hallmarks of Hawaiian, Asian, & Pacific Issues Classes**

To fulfill the Hawaiian, Asian, and Pacific Issues Focus requirement, at least two-thirds of a class must satisfy the following Hallmarks:

**H1.** The content should reflect the intersection of Asian and/or Pacific Island cultures with Native Hawaiian culture.

**H2.** A course can use any disciplinary or multi-disciplinary approach provided that a component of the course uses assignments or practica that encourage learning that comes from the cultural perspectives, values, and world views rooted in the experience of peoples indigenous to Hawai'i, the Pacific, and Asia.

**H3.** A course should include at least one topic that is crucial to an understanding of the histories, or cultures, or beliefs, or the arts, or the societal, or political, or economic, or technological processes of these regions; for example, the relationships of societal structures to the natural environment.

**H4.** A course should involve an in-depth analysis or understanding of the issues being studied in the hope of fostering multi-cultural respect and understanding.

**Extra Credit -- \*\* There will be no extra credit offered to any individuals. No exceptions. \*\***  
I may give out extra credit work, but if I do, it will be available for *all* students in the class.

## Grading

Grading will not necessarily be “on a curve.” There is no expectation of what the average grade should be, nor what the grade distribution should look like. If everyone were to demonstrate outstanding understanding of all the material, then everyone deserves a grade of A (and I would be very happy to give each one of them)! I therefore encourage you to discuss the course material with each other to get the most out of the class.

*Note: the points and percentages given are approximations and may vary slightly*

	<b>Total Points</b>	<b>Percentage</b>
Attendance	50	10%
Midterm Exam (1, cumulative)	100	20%
Class Project	100	20%
Assignments (Variable)	100	20%
Final Exam (cumulative)	150	30%
<b>Total</b>	<b>500</b>	<b>100%</b>

## Grade Structure

<b>Letter</b>	<b>Percentage</b>
A	93.50-100.00
A-	90.00-93.49
B+	86.50-89.99
B	83.50-86.49
B-	80.00-83.49
C+	76.50-79.99
C	73.50-76.49
C-	70.00-73.49
D+	66.50-69.99
D	63.50-66.49
D-	60.00-63.49
F	59.99 and below

Adjustment of letter grade: One can receive an **upward** adjustment of letter grade for a number of reasons (e.g. very strong improvement during the semester, notable participation during class, exceptional effort). Under no circumstances will a reduction in letter grade be given, and these adjustments are made after the normal grades are assigned and therefore affect no one else’s letter grade.

## Dropping the Course

You are responsible for managing your courses. If you need to drop without a “W” grade make sure you know the appropriate deadlines. This is your responsibility. If you miss the general drop date you will need a signature from me on the “Drop Form” if you drop the class after that date.

**Student Learning Objectives (SLOs): Upon completion of the course, the student should be able to:**

\* *NOTE: “HAP” represents Hawaiian, Asian and Pacific.*

### Pacific Island Culture and Environment SLOs

1. Identify key differences and similarities between Hawaiian and other Pacific Island Cultures.
2. Identify impacts of weather and climate on clothing style and development over time.
3. Describe the mythological representation of weather phenomena for a variety of Island peoples.
4. Describe the way in which clouds and cloud formation are represented in HAP mythologies
5. Describe how precipitation type, timing, and patterns are related to cultural events and agriculture.
6. Describe the how weather phenomena are incorporated in to the various dance forms of the Pacific Islands.
7. Identify examples of weather phenomena as represented in music, songs and chants.
8. Identify regional wind patterns and how they relate to the location of HAP cultures.
9. Describe the impact of weather on place names and wind names.
10. Describe the way in weather and ocean currents are related to inter-island travel in the pacific.
11. Describe how the ocean currents and wave shape/types played a role in the development of surfing.
12. Describe the historical and current implication of El Niño events in the Pacific.
13. Be able to generalize how storms and other large weather events are depicted by HAP cultures.
14. Understand and critically examine the social impacts typhoons and hurricanes in HAP cultures.
15. Describe air pollution concerns for the peoples of HAP cultures in the past and present.

16. Identify the ways in which optical effects (e.g. rainbows) are incorporated into HAP mythologies.
17. Describe how the general climate and micro climates of the various Pacific Islands impacted agriculture.
18. Identify the ways in which HAP cultures will be impacted by climate change and sea level rise.

#### Atmospheric and Environmental Science SLOs

1. Demonstrate a familiarity with the basic vocabulary of meteorology.
2. Demonstrate a familiarity with the geographic location of Hawaii and the Pacific Islands.
3. Describe how temperature changes horizontally and vertically in the atmosphere.
4. Describe and explain the origin, composition, structure, and behaviors of the earth's atmosphere.
5. Understand and analyze important environmental problems related to the Pacific atmosphere.
6. Critically examine the phenomena of the Solar and Terrestrial Radiation and understanding the energy transfer by radiation, conduction, convection, and evapotranspiration and explain the factors that determine the distribution of solar energy over the Earth's surface and describe global patterns of temperature.
7. Understand and critically examine the atmospheric phenomena of temperature, moisture conditions, atmospheric stability, forms of condensation and precipitation, air pressure and winds, circulation of the atmosphere, role of air masses, and weather patterns.
8. Describe the major cloud types and explain the phenomena of rainfall, fog, snow, sleet, and frost.
9. Define a cold and warm front and explain the processes leading to the formation of each and also explain the formation of cyclones and anticyclones, tornadoes, hurricanes and typhoons.
10. Understand and describe the formation of thunderstorms, lightning and thunder.
11. Describe and analyze the changing climate in the past, present and future
12. Understand the impact that people have on the atmospheric environment.
13. Differentiate between global warming and the greenhouse effect.
14. Describe the phenomenon of El Nino-Southern Oscillation and the impacts it has on global precipitation and cloud patterns.
15. Describe various types of atmospheric optical phenomena including rainbows, mirages, halos, crepuscular rays, sun dogs, sun pillars, corona and glories.
16. Understand the various impacts and mitigation strategies for climate change and sea level rise in the Pacific region.