

ASTR 130: INTRO TO ARCHAEOASTRONOMY
3 Credits, Online
Fall 2015, Course #60424

INSTRUCTOR: Nancy Alima Ali

OFFICE HOURS: Available by appointment via telephone or videoconferencing.

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EFFECTIVE DATE: Fall 2015

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

Introduction to the interdisciplinary study of cultures and astronomy for non-science majors. Topics include naked-eye astronomy, myths and rituals, calendar systems, architectural alignments and navigation. Recommended Preparation: ASTR 110.

Activities Required at Scheduled Times Other Than Class Times

This class is an asynchronous online course which means that there are no required times to attend class (either online or in-person). Students will be expected to check the Laulima course website every Monday for the week's readings, assignments and assessment tasks and complete them by the designated due date. Students will be encouraged – but not required – to observe the sky in the daytime and/or nighttime (evening or pre-dawn) as a supplement to course assignments.

STUDENT LEARNING OUTCOMES

The student learning outcomes for the course are:

1. Describe and explain the observable daily motions of celestial bodies.
2. Identify the phases of the moon and explain what causes them.
3. List some cultural associations of the planets.
4. Identify and use measurement tools for determining astronomical alignments.
5. Illustrate how astronomical knowledge can be used in navigation.
6. Compare and contrast how different cultures used astronomical knowledge.
7. Assess the strengths and weaknesses of an interpretation of evidence from an archaeoastronomy site.
8. Explain how culture and science are interrelated.

COURSE TASKS

Course tasks will include readings from the course textbook, readings from supplementary text materials (i.e. articles, websites, etc.), watching videos, listening to podcasts, using online astronomy simulations and sky software activities, writing and responding to graded and ungraded discussions, completing online quizzes, writing a research paper and completing an online exam.

ASSESSMENT TASKS AND GRADING

Grades for this course will be based on the following:

Quizzes (4)	200 points (40%)
Discussions (5).....	100 points (20%)
Research Paper (1)	100 points (20%)
Final Exam (1)	100 points (20%)
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TOTAL	500 points (100%)

Grades Available:

- A = 90-100% (450 – 500 points)
- B = 80-89% (400 – 449 points)
- C = 70-79% (350 – 399 points)
- D = 60-69% (300 – 349 points)
- F = 59% or lower (299 points or less)

N = The 'N' grade indicates that the student has worked conscientiously, attended regularly, finished all work, fulfilled course responsibilities, and has made measurable progress. However, either the student has not achieved the minimal student learning outcomes and is not prepared to succeed at the next level, or the student has made consistent progress in class but is unable to complete the class due to extenuating circumstances, such as major health, personal, or family emergencies.

I. Quizzes – 200 points (40% of final grade)

Four (4) Quizzes worth 50 points each (10% of grade for each quiz) will be taken online in Laulima:

- Quiz #1: Due Sunday, September 20** (Opens Monday, September 14)
Covering material from weeks 1 – 3
- Quiz #2: Due Sunday, October 11** (Opens Monday, October 5)
Covering material from weeks 4 – 6
- Quiz #3: Due Sunday, October 25** (Opens Monday, October 19)
Covering material from weeks 7 – 8
- Quiz #4: Due Sunday, November 22** (Opens Monday, November 16)
Covering material from weeks 11 – 13

Quizzes must be submitted by 11:55 p.m. HST on the due date. Quizzes will open on at 8:00 a.m. HST on the Monday before the due date. You may take the quiz anytime in the week that the quiz is open.

You will have a set amount of time to take each quiz. Once you start the quiz, you must finish it during the time limit. After you have submitted your quiz answers, you cannot take the quiz again.

If you take the quiz after the deadline, you will receive an automatic 50% reduction in grade.

Quizzes will be based on all readings and assignments for each week covered. So in order to do well on the quiz, complete all of the assignments in the weeks covered first, before taking the quiz. Feedback for quiz scores will include your total quiz score and a breakdown of your scores for the quiz sections/parts but will not include feedback on specific questions.

II. Discussions – 100 points (20% of final grade)

Six (6) discussions will be assigned on Laulima. Each discussion is worth 20 points. However, only five (5) discussions will count towards your final grade. Your lowest discussion score will be dropped and NOT included in your final grade. Discussions will be graded using a rubric provided on Laulima.

Discussion questions will generally be posted on the Laulima course site by 8:00 a.m. HST on Monday of the week that the discussion is assigned.

Discussions will be based on the readings and assignments of each week. You must submit your discussion response by 11:55 p.m. HST on the Sunday after the discussion is assigned. See below for due dates.

Discussion #1: Sunday, August 30

Discussion #2: Sunday, September 13

Discussion #3: Sunday, October 4

Discussion #4: Sunday, October 18

Discussion #5: Sunday, November 15

Discussion #6: Sunday, December 6

Late discussion submissions will not be graded and will receive a score of zero (0).

III. Research Paper – 100 points (20% of final grade)

One 3-page research page paper is required. Research topics and further instructions about papers, including assessment rubric, will be provided on Laulima.

Due Date: Sunday, November 1 (11:55 p.m. HST)

The research paper must be written in a Word document with 12-point font and double-spacing. The paper must be submitted via the “Paper” tool by uploading a Word document.

Late papers will be accepted until 11:55 p.m. HST on Thursday, November 11 but will receive an automatic 2% reduction in grade for each day late (maximum reduction = 20%). Papers will not be accepted after November 11 and will receive a grade of zero (0).

IV. Final Exam – 100 points (20% of final grade)

One final exam will be given, worth 100 points. The final exam will be cumulative and include multiple choice questions, as well as short answer and/or essay type questions. The exam must be taken online in Laulima. Exam re-takes are not allowed.

Due Date: Thursday, December 17 (11:55 p.m. HST)

The final exam will open on Saturday, December 12 at 8:00 a.m. HST and will close on Thursday, December 17 at 11:55 p.m. HST.

LEARNING RESOURCES

There is one required textbook for this course which is available for purchase through the Windward Community College bookstore as well as online

Krupp, E.C., *Echoes of the Ancient Skies: The Astronomy of Lost Civilizations*. Mineola, New York: Dover Publications, Inc., 1994.

Especially because this is an online class, students need the text in order to be successful in the course; students will also need the text in order to complete the course paper assignment and to study for the quizzes and final exam.

In addition to the textbook, you will also need to download the following free software programs:

- Stellarium
This is a free planetarium software program which you will need to learn about positional astronomy concepts. Instructions on how to download Stellarium from www.stellarium.org will be provided in Laulima.
- Adobe PDF Reader
Some of the resources for this course will be provided as PDF documents. If you don't already have an Adobe PDF Reader, you will need to download one from <http://get.adobe.com/reader/>.
- Mozilla Firefox or Google Chrome internet browser
Laulima appears to be most stable and consistent when using Mozilla Firefox. You can download these browsers at <https://www.mozilla.org/en-US/firefox/new/> and <http://www.google.com/chrome/>.

ONLINE COURSE EXPECTATIONS

Because this course is completely online, it is especially important that students take responsibility for their own learning. This means that it is up to the student to make sure that they keep up with course assignments by setting aside chunks of uninterrupted time each week to work on the course, keeping track of graded quiz/discussion/paper/exam deadlines, asking for help when needed and making sure they have the appropriate time and resources to meet the course requirements.

Students will be expected to have a fast and stable internet connection. This is particularly important when taking timed quizzes and exams online. If you do not have a fast, stable internet connection at home, it is highly recommended that you take the quizzes and exams from a location that does have a fast, stable internet connection (i.e. UH computer lab).

Note that all course deadlines are listed in Hawaii Standard Time zone. If you are in a different time zone you will need to adjust accordingly.

If you need individual assistance from the instructor related to course assignments, please email me at nancyali@hawaii.edu. I generally check this email at least once a day during Monday through Friday, and sometimes less frequently during weekends. Do not wait until the last minute to ask for help on a course assignment. In addition to email help, students can also set up an appointment to talk with the instructor by phone or via videoconferencing.

Technical problems with Lulima should be directed to Lulima support. Below are some places to go for help with Lulima and other computer support issues:

Quick Links:

[Logging in to Lulima](#)

[Forwarding your UH email](#)

Help with Online Classes:

[At Windward CC](#)

[In the UH System](#)

Computer Support from Windward CC:

Email: wcc-help@lists.hawaii.edu

Phone: 808-235-7314

[Webpage](#)

Computer Support from the UH System:

Phone: 956-8883

General email: help@hawaii.edu

[Webpage](#)

Lulima help: Lulima.hawaii.edu

Windward Library:

Email: wccref@hawaii.edu

Phone: 235-7338 (Reference Desk)

ACADEMIC HONESTY

Because Windward Community College is an academic community with high professional standards, academic dishonesty will not be tolerated in this class. Such dishonesty includes cheating and plagiarism.

Cheating includes but is not limited to giving or receiving unauthorized assistance during a quiz or exam, obtaining unauthorized information about a quiz or exam before it is given, using inappropriate or unallowable sources of information during a quiz or exam, and misrepresenting the facts in order to obtain exemptions from course requirements.

Plagiarism includes but is not limited to submitting, in fulfillment of an academic requirement, any document that has been copied in whole or in part from another individual's work without attribution, paraphrasing a passage so that the reader is misled as to the source and submitting the same written or oral material in more than one course without obtaining authorization from the instructors involved.

In cases of suspected or admitted academic dishonesty, the instructor shall attempt to discuss the matter with the student and may bring it to the attention of the departmental chairperson and the student's advisor. The student may be asked to redo the assignment, be given a failing or reduced grade for the assignment or be given a failing or reduced grade for the course.

DISABILITIES ACCOMMODATION STATEMENT

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.

COURSE OUTLINE

Note: This outline is subject to change. Any changes will be announced in Laulima.

Week #1	August 24 - 30	Introduction to course
Week #2	Aug. 31 – Sept. 6	Positional Astronomy Basics
Week #3	Sept. 7 – 13	Cultural Knowledge in Sky Stories
Week #4	Sept. 14 - 20	Case Study: Stonehenge
Week #5	Sept. 21 - 27	Solstices & Equinoxes; Altitude & Azimuth
Week #6	Sept. 28 – Oct. 4	Solstices & Equinoxes; Right Ascension & Declination
Week #7	Oct. 5 - 11	Case Study: Maya Astronomy, Mexico
Week #8	Oct. 12 - 18	Case Study: The Great Pyramid of Giza in Egypt
Week #9	Oct. 19 - 25	Research Paper: Choosing Topic & Finding Sources
Week #10	Oct. 26 – Nov. 1	Research Paper: Writing Paper
Week #11	Nov. 2 - 8	The Moon Phases
Week #12	Nov. 9 - 15	Hawaiian Lunar Calendar
Week #13	Nov. 16 - 22	Makahiki
Week #14	Nov. 23 - 29	Polynesian Voyaging
Week #15	Nov. 30 – Dec. 6	Polynesian Voyaging
Week #16	Dec. 7 - 13	Exam Review & Course Wrap-Up
Week #17	Dec. 14 - 17	Final Exam