

ASTR 130 – Introduction to Archaeoastronomy

**Windward Community College
Spring 2015; Course # 63419, 3 Credits
Online**

CONTACT INFORMATION

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Office Hours: Available by appointment via telephone or videoconferencing

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

ASTR 130 CATALOGUE 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.

STUDENT LEARNING OUTCOMES

Upon completion of this course, students are expected to be able to:

- Describe and explain the observable motions of celestial bodies.
- List factors affecting naked-eye astronomy observations.
- Summarize some of the issues in using astronomical motions for timekeeping and how different cultures have addressed those problems.
- Illustrate how astronomical knowledge can be used in navigation.
- Identify and use measurement tools for determining astronomical alignments.
- Compare and contrast how different cultures used astronomical knowledge.
- Assess the strengths and weaknesses of an interpretation of evidence from an archaeoastronomy site.
- Explain how science and culture are interrelated.

ASSESSMENT & EVALUATION

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, February 8 (Opens Monday, February 2)

Covering material from weeks 1 – 3

Quiz #2: Due Sunday, March 1 (Opens Monday, February 23)

Covering material from weeks 4-6

Quiz #3: Due Sunday, March 22 (Opens Monday, March 16)

Covering material from weeks 7 - 10

Quiz #4: Due Sunday, May 3 (Opens Monday, April 27)

Covering material from weeks 12 – 15

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 due date, 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.

Note that week 11 is not included in the quizzes because that week is Spring Recess.

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

Six (6) discussions will be assigned on Lulima. 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 Lulima.

Discussion questions will be posted on the Lulima 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, January 18**
- Discussion #2: Sunday, February 1**
- Discussion #3: Sunday, February 22**
- Discussion #4: Sunday, March 8**
- Discussion #5: Sunday, April 12**
- Discussion #6: Sunday, April 26**

If you submit your discussion after the due date, you will receive an automatic 50% reduction in grade.

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

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

Due Date: Sunday, May 10 (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, May 14 but will receive an automatic 5% reduction in grade for each day late (maximum reduction = 20%). Papers will not be accepted after May 14 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 Lulima. Exam re-takes are not allowed.

Due Date: Thursday, May 14 (11:55 p.m. HST)

The final exam will open on Monday, May 9 at 8:00 a.m. HST and will close on Thursday, May 14 at 11:55 p.m. HST.

Extra Credit

A list of extra credit opportunities will be provided on Lulima. A maximum of 25 points will be awarded for extra credit. All extra credit assignments must be submitted by 11:55 p.m. on **Sunday, May 10**.

REQUIRED 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 Lulima.
- 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
Lulima 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/>.

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.

COMPUTER SUPPORT

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)

WCC 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 (Rev. January 2015) ASTRO 130, Spring 2015 (Online)

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

Week #1 January 12 – 18	Important Dates: Sunday, January 18 – Graded Discussion #1 Due Overview: Introduction to course Gain familiarity with online course environment
Week #2 January 19 – 25	Overview: Develop an understanding of basic positional astronomy concepts and vocabulary
Week #3 January 26 – Feb 1	Important Dates: Sunday, February 1 - Graded Discussion #2 Due Overview: Understand that cultural knowledge is embedded in sky stories Deepen understanding of positional astronomy concepts and vocabulary
Week #4 Feb 2 - 8	Important Dates: Sunday, February 8 – Last day to take graded quiz #1 Overview: Case Study: Stonehenge & Solstices
Week #5 Feb 9 - 15	Overview: Case Study: Stonehenge & Solstices
Week #6 Feb 16 – 22	Important Dates: Sunday, February 22 – Graded Discussion #3 Due Overview: Case Study: Temple of Inscriptions at Palenque, Mexico
Week #7 Feb 23 – Mar 1	Important Dates: Sunday, March 1 – Last day to take graded quiz #2 Overview: Case Study: The Great Pyramid of Giza in Egypt

<p>Week #8 Mar 2 – 8</p>	<p>Important Dates: Sunday, March 8 – Graded Discussion #4 Due</p> <p>Overview: Comparison of Archaeoastronomy Sites</p>
<p>Week #9 Mar 9 - 15</p>	<p>Overview: The Moon - Phases of the Moon</p>
<p>Week #10 Mar 16 – 22</p>	<p>Important Dates: Sunday, March 22 – Last day to take graded quiz #3</p> <p>Overview: The Moon - Eclipses</p>
<p>Week #11 Mar 23 – 29</p>	<p>Important Dates: Monday, March 23 – Friday, March 27 – SPRING RECESS</p> <p>SPRING RECESS - NO CLASSES</p>
<p>Week #12 Mar 30 – Apr 5</p>	<p>Overview: Calendars: The Moon & Easter Calculations</p>
<p>Week #13 Apr 6 – 12</p>	<p>Important Dates: Sunday, April 12 – Graded Discussion # 5 Due</p> <p>Overview: Calendars: Hawaiian Lunar Calendar</p>
<p>Week #14 Apr 13 – 19</p>	<p>Overview: Calendars: Venus & the Maya Tzolkin Calendar</p>
<p>Week #15 Apr 20 – 26</p>	<p>Important Dates: Sunday, April 26 – Graded Discussion #6 Due</p> <p>Overview: Polynesian Voyaging Choose research paper topics</p>

<p>Week #16 Apr 27 – May 3</p>	<p>Important Dates: Sunday, May 3 – Last day to take graded quiz #4</p> <p>Overview: Research paper</p>
<p>Week #17 May 4 – 10</p>	<p>Important Dates: Sunday, May 10 – Research paper due Sunday, May 10 – Last day to submit any extra-credit assignments.</p> <p>Overview: Research paper due Review for final exam</p>
<p>Week #18 May 11 – 17</p>	<p>Important Dates: Thursday, May 14 – Final exam due</p>