Maya Archaeoastronomy and Ethnoastronomy

Ang 5162, section; 3 credit hours Tuesday 4-6, Turlington 1208 Instructor: Dr. Susan Milbrath Office hours: Thursday 10-12 AM at MUS 110/after class Students must sign in at the front desk of Dickinson Hall on Museum Road

This course provides a general background in Maya culture, past and present, and teaches the "tools of the trade" used in studies of cultural astronomy throughout the New World. The role of ancient observations of the sky remains central to studies of the ancient Americas, as seen in recent research on the astronomical towers marking the sun's seasonal cycle at Chankillo, Peru, and the discovery of astronomical tables recorded in murals at the Maya site of Xultun, featured in <u>Science (2012)</u> and <u>Latin American Antiquity</u> (2014). The Maya are the only New World civilization to develop true writing, and their scientific knowledge rivals that of Europe in the Middle Ages. As early as 1000 BCE, the Maya constructed astronomical observatories to track solar positions, and these observations helped them develop a sophisticated calendar that was locked into multiple astronomical cycles. Their ancient 260-day calendar still survives today, as do many ancient Maya cultural norms, including their language and beliefs integrating Precolumbian religion and astronomy with Catholicism.

The course involves a mixed format, including lectures by the professor, presentations by students, and seminar discussion. After the first few weeks of class, students will select a research topic and present their research in class near the end of the term. The results of their research will also be documented in a formal research paper (15-20 pp. plus 2-3 pp. bibliography). This paper will include social science citations and a complete bibliography of all works cited to support the research. Class attendance and active participation in discussion based on the reading assignments comprise 25% of the course grade. Another 25% of the grade is based on class presentations of additional assigned readings. The final paper comprises the remainder of the grade with 20% based on the oral presentation and 30% on the written version.

Required Texts Anthony F. Aveni, <u>Skywatchers (a revised and updated version of Skywatchers of Ancient Mexico)</u>, University of Texas Press, 2001 (paperback). Susan Milbrath, <u>Stargods of the Maya: Astronomy in Art, Folklore, and Calendars</u>, University of Texas Press, 1999 (paperback). Recommended Texts Michael C. Coe, <u>The Maya</u>, Thames and Hudson, most recent edition (paperback). Extra readings distributed individually as pdfs or Xerox copies during class Also check these journals available in UF Science Library or online: E59.A8A68 <u>Archaeoastronomy: Journal of Cultural Astronomy</u> GN799.A8 A72 <u>Archaeoastronomy: Supplement to Journal of the History of Astronomy;</u>

Week 1: January 6 (2015), Introduction to Archaeoastronomy and Ethnoastronomy Required Readings: Aveni's Skywatchers, pp. 1-11; Milbrath's Star Gods, pp. 1-11

Week 2: January 13, Maya Geographical Area and Environment Early Maya and Rise of Maya Civilization, Early Classic Maya Suggested Readings: Coe's The Maya, pp. 7-109

Week 3: January 20, Late Classic Maya and Terminal Classic Maya Suggested Readings: Coe's The Maya, pp. 110-176

Week 4: January 27 February, Postclassic and Colonial Maya, Maya Thought and Culture Suggested Readings: Coe's <u>The Maya</u>, pp. 177-243

Week 5: February 3, Contemporary Maya Ethnoastronomy Popol Vuh Video Suggested Readings: Coe's <u>The Maya</u>, pp. 242-255; Milbrath's <u>Star Gods</u>, pp. 12-43

Week 6: February 10, Naked-Eye Astronomy Required Readings: Milbrath's <u>Star Gods</u>, pp. 44-57; Aveni's <u>Skywatchers</u>, pp. 49-96; 97-117

Week 7: February 17, Site Orientation in Precolumbian Mesoamerica John Carlson Video on Archaeoastronomy Required Readings: Aveni's Skywatchers, pp. 12-40, 217-250

Week 8: February 24, Solar Cycles and Deities; Maya Site Alignments Required Readings: Milbrath's <u>Star Gods</u>, pp. 58-104; Aveni's <u>Skywatchers</u>, pp. 250-300

Week 9: Spring break February 28-March 7

Week 10: March 10, Maya Calendar; Lunar Cycles and Deities Required Readings: Aveni's <u>Skywatchers</u>, pp. 127-165, 173-184, 207-214 Milbrath's <u>Star Gods</u>, pp. 105-156

Week 11: March 17, Inferior Planets (Venus and Mercury)

Required Readings: Milbrath's <u>Star Gods</u>, pp. 157-217; Aveni's <u>Skywatchers</u>, pp. 166-172, 184-195

Week 12: March 24, Superior Planets in Maya Cosmology (Mars, Jupiter, Saturn) Required Readings: Milbrath's <u>Star Gods</u>, pp. 218-248; Aveni's <u>Skywatchers</u>, pp. 196-200

Week 13:March 31, Stars in Maya Cosmology, The Milky Way, and Celestial Signs Required Readings: Milbrath's <u>Star Gods</u>, pp. 249-293; Aveni's <u>Skywatchers</u>, pp. 200-207

******* Draft Papers Due April 7 (no grade but comments on returned papers should be incorporated in writing final draft for optimal grade).

Week 14: April 7, Measuring Alignments; Computer Programs for Navigating the Sky Required Readings: Aveni's <u>Skywatchers</u>, pp. 118-126

Weeks 15-16: April 14, 21 Student Presentations (Final Draft Papers due on April 25)