University of Vermont Spring 2005 Term
Physics Department Astronomy 57 "History & Practice of Ancient Astronomy"
Instructor: Prof. Joanna Rankin (A538 Cook) Office Hours: WTh 2–3

## Preliminary Course Syllabus

Wednesday, Jan. 4 (15 GMT), Sun at Perigee Saturday, Jan. 14 (0948 GMT), Moon Full Tuesday, Jan. 17 (19 GMT), Moon at Apogee

Jan. 17, 19 Birth of Astronomy/Getting Started

Prepare: Evans: Chapter §§1.1-1.8

Duncan: Introductions and Chapter 1

Observations: Evans §1.2, 1.7 in notebook Assignments: Evans §1.5 in notebook, timelines

Make/use a shadow table (see §§1.5, 1.13) before, on, & after the equinox

Sunday, Jan. 22 (1514 GMT), Moon Third Quarter Friday, Jan. 27 (23 GMT), Saturn at Opposition

Jan. 24, 26 Birth of Astronomy (cont'd)

Prepare: Evans: Chapter §§1.9-1.18; Duncan: Chapts. 2 & 3

Zodiacal constellations

Observations: Evans §§1.11, 1.16 in notebook
Assignments: Evans §§1.13, 1.15, 1.18 in notebook
Choose culture/calendar of interest

Sunday, Jan. 29 (1415 GMT), Moon New Monday, Jan. 30 (08 GMT), Moon at Perigee

Jan. 31, Feb. 2 Celestial Sphere

Prepare: Evans: Chapter §§2.1-2.8; Duncan: Chapts. 4 & 5

Aristotle: extracts from On the Heavens

Observation: Evans §2.8 in notebook Assignments: Evans §§2.3, 2.7 in notebook

Culture/calendar paper proposal written, corrected & critiqued, due 2/9

Sunday, Feb. 5 (0629 GMT), Moon First Quarter

Feb. 7, 9 Celestial Sphere (cont'd)

Prepare: Evans: Chapter §§2.9-2.17; Duncan: Chapts. 6 & 7

Observation: Equinox; Evans §2.17 in notebook Assignments: Formal write-up of §1.18 due 9/20 Evans §§2.10, 2.12, 2.14 in notebook

Monday, Feb. 13 (0444 GMT), Moon Full Tuesday, Feb. 14 (01 GMT), Moon at Apogee

Feb. 14, 16 Applications of Spherics

Prepare: Evans: Chapter §§3.1-3.4; Duncan: Chapts. 8 & 9

Observation: Night Sky Observations with Prof. Manley

Aratus: Phenomena

Assignments: Evans: §§3.3-3.4 in notebook

Notebook check: notebooks due 2/21

Tuesday, Feb. 21 (0717 GMT), Moon Third Quarter

Feb. 21, 23 Applications of Spherics (cont'd)

Prepare: Evans: Chapter §§3.5-3.8; Duncan: Chapts. 10 & 11

Janus astrolabe instructions

Assignments: Submit finished sundial 2/28

Evans: §§3.6, 3.8 in notebook

Friday, Feb. 24 (05 GMT), Mercury at Greatest E Elongation Monday, Feb. 27 (20 GMT), Moon at Perigee Tuesday, Feb. 28 (0031 GMT), Moon New

Feb. 28, Mar. 2 Calendars and Time Reconing

Prepare: Evans: Chapter §§4.1-4.6; Duncan: Chapts. 12 & 13

Assignments: Evans: §§4.2, 4.4 in notebook

Culture paper due 3/9

Sunday, Mar. 5 (00 GMT), Jupiter Stationary Monday, Mar. 6 (2016 GMT), Moon First Quarter

Mar. (7), 9 Calendars and Time Reconing (cont'd)

Prepare: Evans: Chapter §§4.7-4.12; Duncan: Chapts. 14 & 15

Assignments: Evans: §§4.6, 4.8, 4.12 in notebook

Submit finished astrolabe with your plate 3/14

Monday, Mar. 13 (02 GMT), Moon at Apogee Tuesday, Mar. 14 (2335 GMT), Moon Full

Mar. 14, 16 Calendars and Time Reconing (cont'd) MID-TERM EXAM

Monday, Mar. 20 (1826 GMT), Vernal Equinox Wednesday, Mar. 22 (1911 GMT), Moon Third Quarter Saturday, Mar. 25 (07 GMT), Venus at Greatest W Elongation

------ SPRING VACATION ------

Tuesday, Mar. 28 (07 GMT), Moon at Perigee Wednesday, Mar. 29 (1015 GMT), Moon New

Mar. 28, 30 Solar Theory

Prepare: Evans: Chapter §§5.1-5.6

Ptolemy: Extracts from the *Almagest* 

Assignments: Evans: §§5.4, 5.6 in notebook Wednesday, Apr. 5 (1201 GMT), Moon First Quarter Wednesday, Apr. 5 (12 GMT), Saturn Stationary Saturday, Apr. 8 (19 GMT), Mercury at Greatest W Elongation

Apr. 4, 6 Solar Theory (cont'd)

Prepare: Evans: Chapter §§5.7-5.10
Assignments: Evans: §§5.8, 5.10 in notebook

Tuesday, Apr. 9 (13 GMT), Moon at Apogee Thursday, Apr. 13 (1640 GMT), Moon Full

Apr. 11, 13 The Fixed Stars

Prepare: Evans: Chapter §§6.1-6.10
Observation: Evans §6.3 in notebook
Assignments: Evans: §§6.5, 6.7 in notebook

Friday, Apr. 21 (0328 GMT), Moon Third Quarter

Apr. 18, 20 Planetary Theory

Prepare: Evans: Chapter §§7.1-7.14
Observation: Evans §7.3 in notebook

Assignments: Evans: §§7.5, 7.8, 7.14 in notebook

Calendar paper due 4/25

Tuesday, Mar. 25 (11 GMT), Moon at Perigee Thursday, Apr. 27 (1944 GMT), Moon New

Apr. 25, 27 Planetary Theory (cont'd)

Prepare: Evans: Chapter §§7.15-7.22

Assignments: Evans: §§7.16, 7.18, 7.22 in notebook

Thursday, May 4 (15 GMT), Jupiter at Opposition Sunday, May. 7 (07 GMT), Moon at Apogee Friday, May 5 (0513 GMT), Moon First Quarter

May. 2 Planetary Theory (cont'd)

Prepare: Evans: Chapter §§7.23-7.31

Assignments: Evans: §§7.19, either 7.23, 7.22 or 7.28

Notebooks, indexed with TOC due 5/5

May 5, 4:00 pm FINAL EXAM (Friday)

