

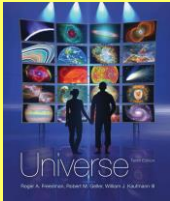
PHYS 175, Spring 2014 – Course Outline

Week #0: 4–5 Sep 2014

⇒ **This page will be updated *throughout* the semester, so keep refreshing your browser when you order to keep up with the course content.** On this page you will find how the course will be broken and when each of the quizzes, homework assignments and exams will be. The labs will be posted and managed via [UAF's Blackboard](#) – so be sure to check there as well!

∅ Introductions, [syllabus](#) and text, motivations for this course and how it might be of interest later in life. We'll begin the discussion about astronomy and the study of the nighttime sky.

⌘ Your textbook should be the 10th edition of *Universe* by Freedman, Geller and Kaufmann. It's cover should look something like this:



On [Blackboard](#) I've posted a supplemental set of lecture notes in a large PDF file from PHYS 175, kindly provided by Prof. Conde. You'll find them under the "Course Materials" tab. They serve as a nice supplement to the text.

Σ **Major Section: I** Introducing Astronomy

⊗ Read Ch. 1

∏ 4 Sep: Astronomy & the Universe (1)

⊕ **No HW this week!**

Week #1: 8–12 Sep 2014

⊗ Read Chs. 2-3

∏ Sep 9: Knowing the Heavens (2)

∏ Sep 11: Eclipses & the Motion of the Moon (3)

⊕ All HW assignments are from the course text (10th ed.) and are in the format {Ch. #}.{problem #}. Those in **boldface** are mathematical in nature, the others are conceptual.

⊕ **HW #1 (due 11 Sep by 17:00):** 1.10, 1.23, **1.24**; 2.19, 2.26, 2.43; 3.4, 3.24, 3.37, 3.46

Week #2: 15–19 Sep 2014

⊗ Read Chs. 4-5

∏ Sep 16: Gravitation & the Waltz of the Planets (4)

∏ Sep 18: The Nature of Light (5)

⊕ **HW #2 (due 18 Sep by 17:00):** 4.9, **4.18**, 4.21, 4.28, 4.51; 5.9, 5.12, 5.22, 5.24, **5.44**

∩ **Quiz #1** Chs. 1-3 [18 Sep]

Week #3: 22–26 Sep 2014

∑ **Major Section: II Planets & Moons**

⊗ Read Chs. 6-7

∏ Sep 23: Optics & Telescopes (6)

∏ Sep 25: Comparative Planetology I: Our Solar System (7)

⊕ **HW #3 (due 25 Sep by 17:00):** 6.1, 6.3, 6.6, 6.25, **6.36**; 7.8, 7.9, 7.14, 7.19, **7.23**

Week #4: 29 Sep – 3 Oct 2014

⊗ Read Chs. 8, 9.4, 10

∏ Sep 30: Comparative Planetology II: The Origin of Our Solar System (8)

∏ Oct 2: Earth's Magnetic Field (9.4) / Our Barren Moon (10)

⊕ **HW #4 (due 2 Oct by 17:00):** 8.4, **8.9**, 8.16, 8.34; 9.23; 10.3, 10.9, 10.20, 10.28, **10.30**

∩ **Quiz #2** Chs. 4-7 [2 Oct]

Week #5: 6–10 Oct 2014

⊗ Read Chs. 11-12

∏ Oct 7: Mercury, Venus & Mars: Earthlike, yet Unique (11)

∏ Oct 9: Jupiter & Saturn: Lords of the Planets (12)

⊕ **HW #5 (due 9 Oct by 17:00):** 11.2, 11.4, 11.26, 11.33, **11.41**; 12.3, 12.8, 12.13, 12.30, **12.45**

Week #6: 13–17 Oct 2014

⊗ Read Chs. 13-14

∏ Oct 14: Jupiter & Saturn's Satellites of Fire & Ice (13)

∏ Oct 16: Uranus, Neptune, Pluto & the Kuiper Belt: Remote Worlds (14)

⊕ No HW this week!

Week #7: 20–24 Oct 2014

Σ Major Section: III Stars & Stellar Evolution

⊗ Read Chs. 15-16

∏ Oct 21: Vagabonds of the Solar System (15)

∏ Oct 23: Our Star, the Sun (16)

⊕ HW #6 (due 23 Oct by 17:00): 13.5, 13.19; 14.13, 14.25; 15.6, 15.30, 15.39; 16.12, 16.28, 16.33

∩ Quiz #3 Chs. 8-12 [23 Oct]

Week #8: 27–31 Oct 2014

⌘ The **Mid-term Exam** will be given on 30 Oct, in REIC 203 from 11:30 until 13:00. For the exam you need anything other than something to write with and perhaps a pocket calculator.

∇ No formal lab session this week. There will be a *Recitation Session* run by your TA – it may be helpful for you on the mid-term to attend!

⊃ Review Chs. 1-8, 9.4, 10-14 for the exam

⊕ No HW this week!

Week #9: 3–7 Nov 2014

⊗ Read Chs. 17-18

∏ Nov 4: The Nature of Stars (17)

∏ Nov 6: The Birth of Stars (18)

⊕ HW #7 (due 6 Nov by 17:00): 17.1, 17.9, 17.11, 17.15, 17.35; 18.1, 18.3, 18.15, 18.28, 18.31

∩ Quiz #4 Chs. 13-16 [6 Nov]

Week #10: 10–14 Nov 2014

⊗ Read Chs. 19-20

∏ Nov 11: Stellar Evolution: On & After the Main Sequence (19)

∏ Nov 13: Stellar Evolution: The Deaths of Stars (20)

⊕ HW #8 (due 13 Nov by 17:00): 19.5, 19.11, 19.18, 19.22, 19.24; 20.10, 20.18, 20.25, 20.47, 20.63

Week #11: 17–21 Nov 2014

⊗ Read Chs. 21-22

⌈ Nov 18: Black Holes (21)

⌈ Nov 20: Our Galaxy (22)

⊕ **HW #9 (due 20 Nov by 17:00):** 21.11, 21.15, 21.19, 21.31, **21.46**; 22.8, 22.13, 22.18, 22.20, 22.32

∩ **Quiz #5** Chs. 17-20 [20 Nov]

Week #12: 24–26 Nov 2014

Σ **Major Section: IV** Galaxies & Cosmology

⊗ Read Ch. 23

⌈ Nov 25: Galaxies (23)

⊕ **No HW this week!**

Week #13: 1–5 Dec 2014

⊗ Read Chs. 24-25

⌈ Dec 2: Quasars & Active Galaxies (24)

⌈ Dec 4: Cosmology: The Origin & Evolution of the Universe (25)

⊕ **HW #10 (due 4 Dec by 17:00):** 23.3, 23.19, 23.28; 24.4, 24.14, **24.18**; 25.2, 25.10, 25.16, **25.38**

∩ **Quiz #6** Chs. 21-23 [4 Dec]

Week #14: 8–12 Dec 2014

⊗ Read Chs. 26-27

⌈ Dec 9: Exploring the Early Universe (26)

⌈ Dec 11: The Search for Extraterrestrial Life (27)

⊕ **No HW this week!**

Week #F: 16 Dec 2014

⇒ **Review Chs. 16-25 for the exam**

✕ **The Final Exam** will be given in REIC 203 from 10:15 until 12:15, per the [UAF Exam Schedule](#).

∅ **Stay warm & have a great winter break!**

