**ASTR 323: Extragalactic Astronomy and Cosmology**

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University of Washington, Spring Quarter 2014

**Location and Time:** Tuesday, Thursday: 2:30-3:50, PA A110

**Office Hours:** Tuesday after class, or any other time when my office door is open

**Grading:** closed-book mid-term exam 30%, closed-book final exam 30%, 4 homeworks 10% each

key: >90%=A, >80%=B, >70%=C, >50%=D.

**Class web site:** [http://www.astro.washington.edu/ivezic/ast323.html](http://www.astro.washington.edu/ivezic/ast323.html)

**Required Textbook:** Ryden & Peterson: *Foundations of Astrophysics*

**Tentative Class Schedule**

1) Tue: April 1  L1: Introduction, review of stellar astrophysics
2) Thu: April 3  L2: The Milky Way (structure, ISM)
   **READING DUE:** Ch.19
3) Tue: April 8  L2: The Milky Way (SDSS and kinematics)
4) Thu: April 10 L3: Introduction to galaxies, the Hubble sequence
   **READING DUE:** Ch.20 (sections 1-3)
5) Tue: April 15 L3: Spiral Galaxies (Tully-Fisher, Virial Theorem)
6) Thu: April 17  HW1 due, L3: Elliptical Gal’s (Faber-Jackson, Fundamental Plane)
   **READING DUE:** Ch.20 (sections 4-5)
7) Tue: April 22 L4: Extragalactic Distance Scale
8) Thu: April 24  *** NO CLASS ***
   **READING DUE:** Ch.21
9) Tue: April 29  HW2 due, L5: Observed Properties of AGNs and quasars
10) Thu: May 1    L5: The Unified AGN Model
    **READING DUE:** Ch.22
11) Tue: May 6    *** MIDTERM EXAM: 2:30-3:50pm, PA A110 ***
12) Thu: May 8    L6: Galaxy Clusters, Gamma-ray bursts, Lensing
    **READING DUE:** Ch.23 (sections 1-4)
13) Tue: May 13   L7: Expansion of the Universe
14) Thu: May 15  L7: Newtonian and Relativistic Cosmology  
     READING DUE: Ch. 23 (section 5), Ch.24 (sections 1-2)  
15) Tue: May 20  HW3 due, L7: Observational Cosmology  
16) Thu: May 22  L8: CMB and other evidence for the Big Bang  
     READING DUE: Ch.24 (sections 3-4)  
17) Tue: May 27  L8: Early Universe and Inflation  
18) Thu: May 29  HW4 due, L9: Astronomical Surveys  
19) Tue: June  3  L10: Recap of statistics  
20) Thu: June  5  Free discussion about the class and other topics  
21) Tue: June 10  *** FINAL EXAM: 4:30-6:20pm, PA A110 ***  

Notes:  

**Exams** will be based on the material from the textbook AND the lecture notes.  

**The lecture notes** will be available from the class website on the morning of the day of the corresponding class – the lecture notes are not to be mistaken for the textbook! See the READING assignments above!  

**Homeworks** will be posted at the class website no later than the first day of the week prior to the due date week (e.g. HW 1 is due on April 17, 2014, and will be posted no later than April 7, 2014).