Astr 507: Astrophysics I

Željko Ivezić
University of Washington, Fall Quarter 2005

Location and Time: MW: 3:00-4:20 PAA A214
Office Hours: after class, or any other time when my office door is open
Class web site: http://www.astro.washington.edu/ivezic/Astr507

Tentative Class Schedule

1) W: Sep 28 Introduction
2) M: Oct  3 Review of Thermodynamics
3) W: Oct  5 Boltzman Distribution
4) M: Oct 10 Fermi-Dirac and Bose-Einstein Distributions
5) W: Oct 12 Saha Equation
6) M: Oct 17 Homework Review
7) W: Oct 19 Introduction to White Dwarfs and Neutron Stars
8) M: Oct 24 Degenerate Matter
9) W: Oct 26 Stroemgren spheres
10) M: Oct 31 Thermodynamics in the early Universe I
11) W: Nov 2 Thermodynamics in the early Universe II
12) M: Nov 7 *** Midterm Exam ***
13) W: Nov 9 Dust Radiative Transfer
14) M: Nov 14 *** no class ***
15) W: Nov 16 Introduction to Statistical Data Analysis
16) M: Nov 21 Poisson and other Distributions in Astronomy
17) W: Nov 23 Introduction to Bayesian Statistics
18) M: Nov 28 *** no class ***
19) W: Nov 30 *** no class ***
20) M: Dec  5 Introduction to Astronomical Imaging
21) W: Dec  7 Review

FINAL EXAM: Dec 12, 10:00-11:30 PAA A214
Required Textbook: none, handouts, any graduate level textbook on “modern astrophysics”, e.g. R. Bowers & T. Deeming: Astrophysics (I & II), 1984, Jones and Bartlett Publishers
P. Gregory: Bayesian Logical Data Analysis for the Physical Sciences, 2005, Cambridge Univ. Press

Additional Materials: check out the class web site

Grading: closed-book mid-term exam 30%, closed-book final exam 30%, homeworks: 40% total
key: >90%=A, >80%=B, >70%=C, >50%=D.

Notes:

Exams will be based on the material from the handouts and lecture notes.