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## ASTR 102: Introduction to Astronomy

prof. Željko Ivezić

University of Washington, Fall Quarter 2009

**Teaching Assistant:** Sarah Loebman, PAB 337

**Location and Time:** Tuesday/Thursday: 9:30-10:50, ARC 160

**Office Hours:** PAB 357, Tuesday after class, or any other time when my office door is *open*

**Grading:** closed-book mid-term exam 20%, closed-book final exam 30%, labwork 50%  
approximate key: >90%=A, >80%=B, >70%=C, >50%=D.

**Class web site:** <http://www.astro.washington.edu/users/ivezic/Astr102>

**Required Textbook:** *The Cosmic Perspective: Stars, Galaxies and Cosmology*  
by Bennett, Donahue, Schneider & Voit (5th edition, 4th may be ok if you have it)

**UW Lecture Notes (course pak):** J. Dalcanton: *Astr 102, Autumn 2008*  
(see also the class webpage for a link to pdf file)

### Tentative Class Schedule

(please read assigned chapters prior to the class)

- 1) Thr: Oct 1 Introduction, Gravity (Tom Quinn) 4.1-4.5
- 2) Tue: Oct 6 Atoms and Matter (Sarah Loebman) 5.1, 5.3
- 3) Thr: Oct 8 Thermal Radiation (Eric Agol) 5.2, 5.4
- 4) Tue: Oct 13 The Electromagnetic Spectrum 5.1-5
- 5) Thr: Oct 15 Measuring Distances in Astronomy 1.1-2
- 6) Tue: Oct 20 Basic Properties of Stars 15.1-3
- 7) Thr: Oct 22 Spectral Classification of Stars, the Sun 14.1-3
- 8) Tue: Oct 27 Stellar Birth and Evolution 16.1-3, 17.1
- 9) Thr: Oct 29 Stellar Evolution and Death 17.2-4 18.1-4
- Tue: Nov 3 MIDTERM EXAM (9:30-11:20)
- 10) Thr: Nov 5 Introduction to galaxies 20.1
- 11) Tue: Nov 10 Lives of Galaxies 21.1-2
- 12) Thr: Nov 12 Our own galaxy, the Milky Way 19.1-4

- 13) Tue: Nov 17 Quasars and Active Galactic Nuclei 21.3
- 14) Thr: Nov 19 Expansion of the Universe 20.2 20.2
- 15) Tue: Nov 24 Observational Cosmology 23.1
- Thr: Nov 26 Thanksgiving
- 16) Tue: Dec 1 CMB and other evidence for Big Bang 23.2
- 17) Thr: Dec 3 Dark Matter and Dark Energy 22.1-22.4
- 18) Tue: Dec 8 Early Universe and Inflation 23.3
- 19) Thr: Dec 10 Are we alone? 24.1-5
- Wed: Dec 16 FINAL EXAM (10:30-12:20)

**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!!

Labwork is worth 50% of the grade!!! Note that this implies that you cannot pass this class without doing the labwork.