

ASTRONOMY 101
OUR CORNER OF THE UNIVERSE
FALL 2008
Course Staff & General Information

Lecturer	Prof. Carl Rosenzweig 319 Physics Building 443-5969 e-mail: rosez@phy.syr.edu	Prof. Duncan Brown 263-1 Physics Building 443-5993 e-mail: dabrown@phy.syr.edu
Office Hours	Prof. Rosenzweig: Wednesday, 3:00-4:00 p.m. or by appointment. Prof. Brown: Tuesday, 4:00-6:00 p.m. or by appointment. Please bring your CLASS NOTES to any office hour discussion.	
Lectures	Tuesdays and Thursdays, 12:30-1:50 p.m. Tuesdays and Thursdays, 2:00-3:20 p.m. Stolkin Auditorium, Physics Building	
Labs	Meet in room B129E, located in the basement of the Physics Building.	
Administrative Questions	Mrs. Arlene Johnston, Course and Undergraduate Secretary Undergraduate Office, Rm. 111, Physics Bldg. (443-1915) For ALL administrative issues related to this course.	
Textbook	<i>The Essential Cosmic Perspective</i> by Bennett/Donahue, Schneider/Voit, 4 th Edition, 2008, Addison-Wesley, plus remote control "clicker". This text is available at the Syracuse University Bookstore.	
Teaching Assistants	<p><u>Gulmammad Mammadov</u> 424 Physics Building e-mail: gmammado@syr.edu</p> <p><u>Kun Gao</u> 406 Physics Building e-mail: gaokun@syr.edu</p> <p><u>Adolphe Kazadi Badiambile</u> 409 Physics Building e-mail: akazadib@syr.edu</p>	<p><u>Brian Maynard</u> 412 Physics Building e-mail: bmaynard@syr.edu</p> <p><u>Naeem Shahid</u> 363 Physics Building e-mail: mnshahid@phy.syr.edu</p> <p><u>Zhou Xing</u> 418 Physics Building e-mail: zhxing@syr.edu</p>

COURSE DESCRIPTION

Astronomy 101, Our Corner of the Universe, is devoted to an understanding of the solar system and man's place in it. We will discuss our Earth, the Sun and the Moon, and the planets. We will also deal with simple aspects of the sky, including observations. You will be required to think about 'how' we have gained such a sophisticated understanding of this part of the Universe, not simply to learn the currently accepted facts. In the process, We hope you will better appreciate the nature of scientific inquiry and its human elements.

AST 101 is intended primarily for non-science majors. It qualifies for both the basic and general list requirements in the Natural Sciences and Mathematics Division in the Liberal Arts Core. AST 101 satisfies the Liberal Arts Core requirement as a course with a laboratory. AST101 and any other Physics or Astronomy course on the Basic List constitute a sequence.

LECTURE

Prof's. Rosenzweig and Brown will give the course lectures. Attendance is important, especially because material will be covered in the lecture that is not available elsewhere. 10-40% of each exam will be drawn from such material. Questions during lecture are welcome. You are responsible for all announcements regarding curriculum, schedule, etc. made during lecture.

RECITATION & LABORATORIES

Many important course activities take place in the laboratories. Most weeks you will carry out an observation or other active learning exercises. It will be to your benefit to read the lab assignment prior to lab. Some laboratory exercises require you to hand in a pre-lab exercise. Labs are available on the Web (see Astronomy home page) and will be handed out in class.

This course satisfies the requirement of the liberal arts core for one "laboratory course." A course fee of \$25 is charged. This fee helps pay for (i) handouts which are distributed to you; (ii) supplies, small pieces of apparatus, and maintenance for the laboratory and observatory; (iii) supplies and apparatus for lecture exercises and demonstrations.

It is imperative that you attend these weekly laboratory meetings. The week following each lab you will have to turn in a written assignment directly to your lab TA. If you need to be excused from a lab meeting, for a medical or other valid reason, inform your TA. Plan on spending an hour or so on several evenings making astronomical observations. In order to take advantage of relatively good observing weather in September, the lab exercises will not always correlate with the weekly lecture. **ANYONE MISSING MORE THAN THREE (3) LABS WILL RECEIVE A GRADE OF ZERO (0) FOR THE LAB PORTION OF THE COURSE!**

The Star Diary lab is extra credit and will replace your lowest grade or a missed lab.

HOMWORK

Homework is assigned for each lecture. The homework is to be found on the Mastering Astronomy website. To access this site you will need the code in the “Student Access Kit” included with your textbook. If you do not have this, you may purchase an access code from the Mastering Astronomy web page at the address below. Once you have your access code, you should register for an account at

<http://www.masteringastronomy.com/>

You can then log into the Mastering Astronomy site. You will be prompted to enter your Student ID and Course ID. Your Student ID is your SUID without spaces or hyphens. The Course ID is SYRAST101.

Homework will be graded and will count the equivalent of one exam (i.e. you may drop your two lowest exams **or** you may drop the homework and your one lowest exam).

EXAMS

There will be five exams, **September 9, September 25, October 21, November 4 and November 20**, roughly one for every four lectures. Each exam consists of 20 questions, 2-4 true/false type questions, the remainder multiple choice. Exams cover all material since the previous exam. Questions will come from lectures, texts, recitations, and homework. **Bring #2 pencils.** Seats will be assigned and posted in the lobby of Stolkin Auditorium before each exam. I.D.'s **MAY BE CHECKED, SO BRING YOUR I.D. CARD.** Exams will not be returned, but may be examined with Prof. Rosenzweig or Brown. If you provide your own code, your exam grades will be posted in the glass case on the East Side of the Physics Building. All questions concerning the grading of exams should be referred to your TA. There are no make-ups!

FINAL

The Final Exam is on **Monday, December 8 at 5:00-7:00 PM.** The final consists of two separate exams, Exams VI and VII. Exam VI is a regular exam on the material covered in the last three lectures. Exam VII is a 20-question comprehensive exam that covers ALL the material discussed in the course.

GRADING

I will drop your two (out of 8) lowest exam and/or homework grades, and count only your 6 highest grades. Missed exams count as zero. The maximum score on these 6 exams is 120 pts. Your lab/recitation grade is worth 30 pts. Thus, your maximum score will be 150 pts. To pass, you need 84 pts (56%). To be guaranteed an A-, you will need 135 pts. (90%). If you respond to 70% or more of the clicker questions you will receive 3 bonus points, 50%-70% will be worth 2 bonus points toward your total score.

GENERAL

Please feel free to see your TA, Prof. Brown or Prof. Rosenzweig during our office hours or by appointment to discuss any difficulties or questions you have about the lectures, the texts or the homework.

WORKING WITH FRIENDS

In general, we encourage you to work with friends and learn together with classmates. The preparation of the written assignments, however, must be individual work. Do it **ALONE**. It is easy for the TA's to detect copying on the lab work. We will be strict about enforcing this rule.

ACADEMIC INTEGRITY

The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see <http://academicintegrity.syr.edu>

Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498 and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance.” For more information about services and policy, see Office of Disability Services

ASTRONOMY 101 E-MAIL LIST

During the course of the semester I will often contact you with special announcements and notices. In particular I will need to notify you on what nights we will be able to have observing sessions to look at the stars and planets. These sessions can only take place if the sky is clear. Unfortunately in Syracuse this is always an iffy proposition. Often I will not know until late afternoon if it will be worth trying to observe. The best way to notify people at the last minute is via e-mail.

I may also e-mail you with sample questions, homework solutions, schedule changes, etc. **YOU ARE RESPONSIBLE** for **ALL** information I send to the listserve. Make sure you sign up **SOON**. I have set up an e-mail list for ast101 to facilitate this communication. **You have to subscribe to this list in order to receive my e-mails.** To subscribe send an e-mail message to:

listserv@listserv.syr.edu

For subject say: subscribe

In the message say: **Subscribe ast101 Jane Doe** (put your **OWN NAME** in place of Jane Doe)

You will receive a message back with any further instructions and confirming your addition to the list.

Astronomy 101, Our Corner of the Universe Course Calendar, Fall 2008

Unless otherwise stated, all readings are in Essential Cosmic Perspective. Figures and figure captions, Common Misconceptions, etc. are an integral part of the reading assignments. All homework is to be submitted via the Mastering Astronomy web site

Date	Topic	Assignments/Lab for Week	
Tuesday, Aug. 26	<i>Introduction; Powers of 10</i>	Reading HW LAB	pp. 1-22; Appendix A4-A7 Mastering Astronomy Assignment 1 (due 9/8/2008 at 12pm) Lunar Phases I/Sunset Point/Astronomy Go-Round
Thursday, Aug. 28	<i>Night Sky; Celestial Sphere</i>	Reading	pp. 26-35
Tuesday, Sept. 2	<i>Lunar Phases; Seasons</i>	Reading LAB	pp. 35-42 Lunar Phases II/ Star Diary
Thursday, Sept. 4	<i>Eclipses; Greek Astronomy</i>	Reading HW	pp. 42-51, pp. 54-62 Mastering Astronomy Assignment 2 (due 9/8/2008 at 12pm)
Tuesday, Sept. 9	EXAM I	LAB	Sky at Night
Thursday, Sept. 11	<i>Birth of Modern Astronomy</i>	Reading	pp. 62-68
Tuesday, Sept. 16	<i>Nature of Science</i>	Reading HW No lab this week	pp. 68-75 Mastering Astronomy Assignment 3 (due 9/24/2008 at 12pm)
Thursday, Sept. 18	<i>Newton & His Laws</i>	Reading	pp. 80-94
Tuesday, Sept. 23	<i>Gravity, Satellites</i>	Reading HW LAB	pp. 94-102 Mastering Astronomy Assignment 4 (due 9/24/2008 at 12pm) Measurements
Thursday Sept. 25	EXAM II		
Tuesday, Sept. 30	HOLIDAY	No labs this week	
Thursday, Oct. 2	<i>Light & Telescopes</i>	Reading HW	pp. 106-117; pp. 121-128 Mastering Astronomy Assignment 5 (due 10/20/2008 at 12pm)
Tuesday, Oct. 7	<i>Overview of Solar System</i>	Reading No lab this week	pp. 138-155
Thursday, Oct. 9	HOLIDAY		

Tuesday, Oct. 14	<i>Cosmogony</i>	Reading HW LAB	pp. 155-180 Mastering Astronomy Assignment 6 (due 10/20/2008 at 12pm) Scale Model of Solar System
Thursday, Oct. 16	<i>Planet Earth.</i>	Reading	pp. 184-196
Tuesday, Oct. 21	EXAM III	LAB	Earth Orbits
Thursday, Oct. 23	<i>Moon, Mercury, Mars</i>	Reading	pp. 196-206
Tuesday, Oct. 28	<i>Venus</i>	Reading LAB	pp. 206-211 Lunar Photographs and Topography
Thursday, Oct.30	<i>Earth: a Living Planet</i>	Reading HW	pp. 211-222 Mastering Astronomy Assignment 7 (due 11/3/2008 at 12pm)
Tuesday, Nov. 4	EXAM IV	No labs this week	
Thursday, Nov. 6	<i>Jovian Planets</i>	Reading	pp. 226-236
Tuesday, Nov. 11	<i>Moons & Rings</i>	Reading HW LAB	pp. 236-249 Mastering Astronomy Assignment 8 (due 11/20/2008 at 12pm) Kepler's Laws & Jupiter's Moons
Thursday, Nov. 13	<i>Meteors & Asteroids</i>	Reading HW	pp. 252-262 p. 255: 5, 12, 13, 14, 21, 22, 24
Tuesday, Nov. 18	<i>Collisions Pluto??</i>	Reading HW	pp. 262-273 Mastering Astronomy Assignment 9 (due 11/20/2008 at 12pm) No labs this week
Thursday, Nov. 20	EXAM V		
Tuesday, Nov. 25	<i>Sun, Our Star</i>	Reading	pp. 278-289 No labs this week
Thursday, Nov. 27	HOLIDAY		
Tuesday, Dec. 1	<i>Sun; Life on Earth</i>	Reading HW LAB	pp. 289-297; pp. 494-505 Mastering Astronomy Assignment 10 (due 12/7/2008 at 12pm) Course Review
Thursday, Dec. 4	<i>Life in the Universe</i>	Reading HW	pp. 505-525 Mastering Astronomy Assignment 11 (due 12/7/2008 at 12pm)
Monday, Dec. 8	EXAM VI & FINAL	5:00 -7:00 PM	

