

ASTRONOMY 150.01 – Science and the Universe

Course Overview: ASTR 150 provides a broad background for science history and practice, with emphasis on astronomy.

- Book: R. C. Bless: “Discovering the Cosmos”
- Class meeting time: Tuesday and Thursday at 1:25 to 2:40 p.m., CUE 203
- Instructor: Guy Worthey, Webster Hall 948C, 335-4994, gworthey@wsu.edu
- Modest web resources: <http://astro.wsu.edu/worthey/astro/html/>
- Office hours: Tu, Th 3:00-3:50 p.m. and by appointment.

Administrative Details:

Good conduct and full participation is expected of each student. Students can be dismissed from the course for behavioral transgressions, subject to appeal through the Vice Provost for Student Affairs and/or the University Conduct Committee, at the discretion of the instructor.

Academic Integrity: Academic dishonesty, including all forms of cheating, plagiarism, and fabrication, is prohibited as stated in the WSU Handbook (WAC 504-25-015). The instructor reserves the right to take appropriate action.

Disability: Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through the Disability Resource Center (DRC) in Administration Annex 205, 335-1566 in Pullman.

Grading: Performance will be evaluated by homework assignments, unannounced in-class quizzes, in-class activities, and 4 tests. Attendance at all exams is mandatory for a passing grade. Participation in in-class activities is mandatory for a passing grade. Some homework will be in the form of “weekly challenge” experiments that include reports. Details of the weekly challenges and the format for the reports will be forthcoming during the course. The bulk of homework will require written expression, including correct grammar, punctuation, and spelling. Numerical scores will be weighted in the following categories: Homework (25%), 4 tests (5% early midterm, 15% for the middle exams, and 20% for the final exam), in-class activities and quizzes (20%). The composite, weighted score will determine each student’s grade according to the table below.

W.S.U. Letter Grade	W.S.U. Grade Point	Minimum percentage needed to obtain grade
A	4.0	92
A-	3.7	89
B+	3.3	86
B	3.0	83
B-	2.7	80
C+	2.3	77
C	2.0	74
C-	1.7	71
D+	1.3	68
D	1.0	65

The dates of the exams are listed in the calendar below. Makeup exams must be arranged in advance with the professor with suitable documentation such as a note from the coach or doctor and will suffer a 10% penalty in score regardless of the nature of the excuse. Students that miss class should contact the professor, preferably during office hours, to pick up any materials that may have been handed out.

Tutoring: General tutoring for the introductory physics and astronomy classes is no longer available due to budget cuts. In most cases, students will find that forming their own study groups is a superior studying strategy, however, students that wish tutors will find that it is straightforward to hire their own.

Math: Algebraic formulæ will be used to describe important natural phenomena, but nothing beyond the level of high school algebra.

Electronics: Electronic devices that send or receive a signal are not allowed in this course. You will not need a calculator, just pencil and paper. However, for student comfort, calculators up to the level of nonprogrammable scientific calculators are allowed in class, but not for tests. The instructor strongly recommends loose-leaf paper in a 3-ring binder (and a pencil) for note-taking. Students with documented disabilities will work with the Disabilities Resource Center and the instructor if an exception to these policies is desired.

ASTR 150 Calendar

Date	Bless Chapter	Topics	Notes
Tues. Aug 25	1	Admin. Info. and Introduction	
Aug 27	2	Basic sky motions	Jewett Observatory: Sat 9 p.m.
Tues. Sep 1	3	Celestial Sphere, Early Astronomy	
Sep 3	4	Greek Astronomy	
Tues. Sep 8	5		
Sep 10	6	Copernicus, Brahe	
Tues. Sep 15	7	Kepler, Galileo	
Sep 17			
Tues. Sep 22			Early Midterm Exam
Sep 24	8	Newton	Jewett Observatory: Sat 9 p.m.
Tues. Sep 29			
Oct 1	9	Radiation and Atoms	
Tues. Oct 6	10	Telescopes	
Oct 8			Exam Today
Tues. Oct 13	11	Stars, Stellar Spectra	
Oct 15	12	H-R diagram	
Tues. Oct 20	13,15,16	Stellar Evolution Summary	
Oct 22			Jewett Observatory: Sat 8:00 p.m.
Tues. Oct 27	17	Galaxies	
Oct 29	18		
Tues. Nov 3	19		
Nov 5			
Tues. Nov 10	20	Cosmology	
Nov 12	21,22		
Tues. Nov 17			
Nov 19			Exam today
Nov 23-27			No class: Thanksgiving Break
Tues. Dec 1	23	Planets	
Dec 3	24		
Tues. Dec 8	25	Life in the Universe	
Dec 10			
Wed, Dec 16			Exam: 1:00 p.m.-3:00 p.m., CUE 203