

ASTRONOMY 5 - EXPLORING THE COSMOS - SUMMER

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Office hours: In the classroom for ½ hour before and after each class

Keep checking UVM Blackboard for an extended course outline and other course materials, including the upcoming test questions and diagrams to help in reviewing the class material.

Brief Course Outline

<u>approx. class hours</u>	<u>Subjects</u>
1	Course Introduction
1	Basic terms of physics
2	Optical and radio telescopes
1	Gravity and orbits
2	Earth motions, time, calendar, seasons and celestial Coordinates
2	Moon motions, eclipses, tides, surface and formation
2	Light and atomic structure, spectroscopy
4	Planets and moons
2	Meteors, solar wind, northern lights, theories of system formation
2	Relativity and space-time
2	Stellar measurements
1	Stellar evolution: birth
2	Life and death of stars: white dwarfs and pulsars
2	Black holes
2	Galaxies, spiral structure and Hubble's law, Quasars
4	Cosmology: size, age, origin and future of the universe

Recommended Text: Neil F. Comins, Discovering the Essential Universe, 6th or 5th Edition. Sections are noted in the extended outline on Blackboard. You are responsible for topics covered in class, not the whole book. Use this book, or any other, if you wish, as backup to your class notes. There will be no required readings or problems drawn from the text. A copy will be on reserve at Bailey-Howe.

Grade Structure:

Weekly tests (3)	- 60%	
Final exam	- 40%	Last class day, cumulative

Notes:

- Weekly tests will each consist of 2 short essay questions. A list of possible questions will be given 5 days in advance of each test. Each question will have several parts, and a few of them will not be posted in advance. At the test, students will find out which 2 they must answer in writing. A sample answer will be given several days before the first test. In addition, there will be one brief extra credit question on each test drawn from the last 5 days of the web site Astronomy Picture of the Day (search APOD).
- The final exam will be in the same format, with 2 questions from the final week of class material, plus 2 more drawn from the earlier lists of questions.
- Preparing for each test constitutes the homework. The answers will not be handed in, except the ones appearing on the tests. No other problems or readings will be assigned.