

New Jersey Institute of Technology
College of Science and Liberal Arts
Department of Physics
Introductory Astronomy and Cosmology, Section 102
Phys 202–102
Spring 2017
Wed. 1-2:25, Fri. 2:30-3:55 KUPF 209

Instructor

Dr. George E. Georgiou
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973-596-5690
OFFICE HOURS: W 3-5:30 or after class or by appointment (send email)

Textbook

Jeffrey Bennett, Megan Donahue, Nicholas Schneider, and Mark Voit. *The Cosmic Perspective Fundamentals*, Second Edition. Pearson Education, Inc., United States of America, 2015.

Additional Reading (optional but may be interesting):

Neil deGrasse Tyson, J. Richard Gott and Michael A. Strauss, *Welcome to the Universe, an Astrophysical Tour*, Princeton University Press (2016)

Grade

Your final grade will be based upon class participation (10%), four examinations (15% each), and one Final Examination (30%). The examinations will be administered on the following dates.

First Examination	Wednesday, February 8, 2017	(15%)
Second Examination	Wednesday, March 01, 2017	(15%)
Third Examination	Wednesday, April 05, 2017	(15%)
Fourth Examination	Wednesday, April 26, 2017	(15%)
Final Examination	Wednesday, May 10, 2017	(30%)

There are no make-up examinations without a valid reason. The following table will determine your final grade.

80% to 100%	A
75% to 79%	B+
70% to 74%	B
65% to 69%	C+
50% to 64%	C
40% to 49%	D
0% to 39%	F

The examination grades will not be curved, nor will the final grades be curved. The examinations will cover topics discussed in class and/or topics discussed in the textbook. The Final Examination will cover the entire course's material. Each quiz and each examination will be closed book and closed notes. No formula sheet or cheat sheet will be provided, nor will either be permitted for any of the examinations.

Introductory Astronomy and Cosmology (Phys 202) and Introductory Astronomy and Cosmology Laboratory (Phys 202A) are two separate courses for which you will receive two separate and independently-determined grades. Moreover, you are free to be registered for either one of these courses

without being registered for the other course. If you are registered for both courses, withdrawal from one course does not mean you must withdraw from the other course.

Academic Integrity

Any student who is disruptive in the classroom will be in violation of the Academic Honor Code and will be reported to the Dean of Student Services.

Any student who cheats during a quiz or an examination will be in violation of the Academic Honor Code. The student will automatically fail the course and will be reported to the Dean of Student Services so that further action may be taken. Examples of cheating during a quiz or an examination include, but are not limited to, talking with another student, copying work from another student's work, allowing another student to copy work from your own work, or use of any materials besides the examination paper and a writing utensil.

Syllabus

Wednesday, January 18, 2017 Friday, January 20	introduction: where and when are we in the Universe? (Chapter One) basic patterns and motions on the sky (Chapter Two)
Wednesday, January 25, 2017 Friday, January 27	light, the electromagnetic spectrum, photons, and telescopes atoms and atomic spectra
Wednesday, February 01, 2017 Friday, February 03	early models of the Universe (Chapter Three) the Newtonian model of the Universe (Chapter Three)
Wednesday, February 08, 2017 Friday, February 10	First Examination introduction to the Solar System (Chapter Four)
Wednesday, February 15, 2017 Friday, February 17	the Earth-Moon system (Chapter Five) the terrestrial worlds of the Solar System (Chapter Five)
Wednesday, February 22, 2017 Friday, February 24	the Jovian worlds of the Solar System (Chapter Six) the minor objects of the Solar System (Chapter Six)
Wednesday, March 01, 2017 Friday, March 03	Second Examination our star, the Sun (Chapter Eight)
Wednesday, March 08, 2017 Friday, March 10	stars and their properties (Chapter Eight) the Hertzsprung-Russell Diagram (Chapter Eight)
Wednesday, March 15, 2017 Friday, March 17	spring break (no classes)
Wednesday, March 22, 2017 Friday, March 24	stellar birth, evolution, and death (Chapter Nine) white dwarfs, neutron stars, and black holes (Chapter Ten)
Wednesday, March 29, 2017 Friday, March 31	star clusters (Chapter Nine) binary star systems (Chapter Eight and Chapter Ten) Einstein's two theories of relativity (Chapter Ten)
Wednesday, April 05, 2017 Friday, April 07	Third Examination our galaxy, the Milky Way Galaxy (Chapter Eleven)
Wednesday, April 12, 2017	galaxies and their properties (Chapter Eleven) the Hubble classification of galaxies (Chapter Eleven) galactic birth, evolution, and death (Chapter Eleven)

Friday, April 14	NO CLASSES (Good Friday – University Closed)
Wednesday, April 19, 2017 Friday, April 21	dark matter and the large-scale structure of the Universe (Chapter Twelve and Chapter Fourteen) cosmology and the history of the Universe (Chapter Twelve and Chapter Thirteen)
Wednesday, April 26, 2017 Tuesday May 2	Fourth Examination review (Friday Schedule, Last Day of Class)
Wednesday, May 03, 2017 Thursday, May 04, 2017	reading day
May 5-11 (final exam period)	Final Examination, Date to be determined

NJIT Spring 2017 Dates to remember

January 17	Tuesday	First Day of Classes
January 23	Monday	Last day to Add / Drop Class Last day to Withdraw with 100% Refund
January 30	Monday	Last day for Full or Partial Withdrawal with 90% Refund
Feb. 13	Monday	Last day for Full Withdrawal with 50% Refund
March 13	Monday	Last day for Full Withdrawal with 25% Refund
March 12-19	Sun-Sun	SPRING RECESS – NO CLASSES (University Open)
March 27	Monday	Last day for Withdrawal
April 14	Friday	NO CLASSES (Good Friday – University Closed)
May 2	Tuesday	Last Day of Class, Friday Classes Meet
May 3-4	WR	Reading Days
May 5-11	F-R	FINAL EXAM Period
May 16	Tuesday	Final Grades Due.