

Fall 2020

PHYS 202-103: Introductory Astronomy and Cosmology

George Georgiou

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Introductory Astronomy and Cosmology
Phys 202–102 Fall 2020
Tuesdays, 6-8:50 p.m. Synchronous remote

All classes are synchronous remote. We will use WEBEX

<https://njit.webex.com/meet/georgiou>

Slides and reinforcing videos, are posted before class on canvas.njit.edu.
Exams will be timed either on canvas or by e-mail.

Instructor

Dr. George E. Georgiou
Microelectronics Research Center, Room 207 (in bridge between FMH and ECE)
george.e.georgiou@njit.edu (preferred contact method)

OFFICE HOURS: send email. If necessary, we can set a time for a webex meeting

Textbook

Primary on which class is based:

“Astronomy” by A.Fraknoi, D.Morrison, S.Wolf ...

Downloadable Open Stax text: <https://openstax.org/details/books/astronomy>

Optional paper textbook: (if do not like reading e-books)

Jeffrey Bennett, Megan Donahue, Nicholas Schneider, and Mark Voit. *The Cosmic Perspective Fundamentals*, 2nd Ed. Pearson Education, Inc., United States of America, 2015. – but ANY EDITION will work for reading material

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%), two in-class exams (20% each), paper (20%) and one Final Examination (30%). The schedule is as follows:

	First Examination		(20%)
	Second Examination		(20%)
	PAPER on a topic of your choosing	(20%)	DUE ON DATE
OF 2nd EXAM			
(30%)	Final Examination	Finals Week (probably 5/13)	

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
60% to 69%	C+
50% to 59%	C
40% to 49%	D
0% to 39%	F

Introductory Astronomy and Cosmology (Phys 202) and Introductory Astronomy and Cosmology Laboratory (Phys 202A) are two separate courses. You can be registered for either one of these courses without being registered for the other course.

Academic Integrity

Any student who is disruptive in the classroom or cheats during an examination, will be in violation of the Academic Honor Code and will be reported to the Dean of Student Services.

Syllabus (Chapters for reading refer to OpenStax Download text)

Tuesday	9/1	Observing the Sky (Chapters One & Two) Orbits and Gravity (Chapter Three)
Tuesday	9/15	Earth, Moon, and Sky (Chapter Four) Radiation and Spectra (Chapter Five)
Tuesday	9/22	Astronomical Instruments (Chapter Six) Introduction to the Solar System (Chapter Seven)
Tuesday	9/29	Earth and Other Cratered Worlds (Chs. 8 and 9) Venus and Mars (Chapter Ten)
Tuesday	10/6	Giant Planets, Rings, Moons (Chapters 11 and 12) Comets, Asteroids, Samples (Chapters 13 and 14)
Tuesday	10/13	The Sun (Chapters 15 and 16) EXAM 1
Tuesday	10/20	Starlight and Stars (Chapters 17 and 18) Distances. Gas & Dust in Space (Ch. 19 and 20)
Tuesday	10/27	Star & Planet Formation (Chapter 21) Stars' Adolescence to Old Age (Chapter 22)
Tuesday	11/3	Death of Stars (Chapter 23) Black Holes, Curved Space-Time (Chapter 24)
Tuesday	11/10	The Milky Way Galaxy (Chapter 25)) EXAM 2 PAPER DUE
Tuesday	11/24	Galaxies (Chapter 26) QSOs, Black holes, Galaxy Evolution (Chs. 27 & 28)
Tuesday	12/1	The Big Bang (Chapter Twenty-nine) Review of Chapters 1-29
Tuesday	12/8	Review continued– LAST DAY OF CLASS
Tuesday	12/15	Final Exam (<u>PROBABLE DATE</u> , all-inclusive)

Fall 2020 Academic Calendar

September 1	Tuesday	First Day of Classes
September 5	Saturday	Saturday Classes Begin
September 7	Monday	Labor Day
September 8	Tuesday	Monday classes meet
September 8	Tuesday	Last Day to Add/Drop a Class
September 8	Tuesday	Last Day for 100% Refund, Full or Partial Withdrawal
September 9	Wednesday	W Grades Posted for Course Withdrawal
September 14	Monday	Last Day for 90% Refund, Full or Partial Withdrawal - No Refund for Partial Withdrawal after this date
September 28	Monday	Last Day for 50% Refund, Full Withdrawal
October 19	Monday	Last Day for 25% Refund, Full Withdrawal
November 9	Monday	Last Day to Withdraw
November 25	Wednesday	Friday Classes Meet
November 26	Thursday	Thanksgiving Recess Begins
November 29	Sunday	Thanksgiving Recess Ends
December 10	Thursday	Last Day of Classes
December 11	Friday	Reading Day 1
December 14	Monday	Reading Day 2
December 15	Tuesday	Final Exams Begin
December 21	Monday	Final Exams End
December 23	Wednesday	Final Grades Due