Extragalactic Astrophysics / PHYS-GA 2051 / Fall 2018 / Syllabus

This course teaches the astrophysics of galaxies and quasars at the graduate level.

You can find the course notes at the course web site. Please read the introduction posted on the web site.

A useful textbook is *Extragalactic Astronomy and Cosmology*, by Peter Schneider. A good fraction of my notes are drawn from that book.

Class meets Tuesday and Thursday at 11:00am in Room 901 of 726 Broadway.

The classes will proceed as follows on the next page (subject to revision!).

Homework will be based on exercises in the notes. The answers to the exercises in the notes are not complete! Actually not complete at all. You will help complete them (with proper attribution to you of course). Each week I will assign one of the questions to each of you in the notes we covered and submit an answer in the form of a LaTeX file or Python notebook, emailed to me.

Sep. 3	Inventory	
Sep. 8	Light I & II	
Sep. 10	Telescopes & Atmosphere	
Sep. 15	Detectors, Images, Spectra	**Exercise #1 due**
Sep. 17	Distance Ladder	
Sep. 22	Cosmology	**Exercise #2 due**
Sep. 24	Structure Formation	
Sep. 29	Galaxy Contents	**Exercise #3 due**
Oct. 1	Galaxy Scaling Relations	
Oct. 6	Stellar Clusters	**Exercise #4 due**; *Legislative Day*
Oct. 8	Stellar Evolution	—
Oct. 13	Stellar Populations	**Exercise #5 due**
Oct. 15	Stellar Dynamics	
Oct. 20	Stellar Dynamics	**Exercise #6 due**
Oct. 22	Interstellar Medium	
Oct. 27	Dust in Galaxies	**Exercise #7 due**
Oct. 29	Gravitational Lensing	*MRB travel*
Nov. 3	Gravitational Lensing	
Nov. 5	Groups & Clusters	**Exercise #8 due**
Nov. 10	Mass in Galaxies	**Exercise #9 due**
Nov. 12	Star Formation in Galaxies	
Nov. 17	Active Galactic Nuclei	**Exercise #10 due**
Nov. 19	Quasars	
Nov. 24	High Redshifts	**Exercise #11 due**
Dec. 1	Theory of Galaxy Formation	
Dec. 3	Gas Accretion	**Exercise #12 due**
Dec. 8	Chemical Evolution	
Dec. 10	Feedback	