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 Monday and Wednesday at 11:00am in Room 902 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. 5	Inventory	
Sep. 10	Light I	
Sep. 12	Light II & Telescopes	
Sep. 17	Atmosphere & Detectors	**Exercise #1 due**
Sep. 21	Images & Spectra	*rescheduled for Friday*
Sep. 24	Distance Ladder	**Exercise #2 due**
Sep. 26	Cosmology	
Oct. 1	Structure Formation	**Exercise #3 due**
Oct. 3	Structure Formation	
Oct. 9	Galaxies	**Exercise #4 due**; *Legislative Day*
Oct. 10	—	—
Oct. 15	Stellar clusters	**Exercise #5 due**
Oct. 17	Stellar evolution	
Oct. 22	Stellar evolution	**Exercise #6 due**
Oct. 24	Stellar populations	
Oct. 29	Stellar populations	**Exercise #7 due**
Oct. 31	Stellar populations	
Nov. 5	*No class*	*MRB travel*
Nov. 7	Dynamics (basics)	**Exercise #8 due**
Nov. 12	Dynamics (Jeans)	**Exercise #9 due**
Nov. 14	Dynamics (Dynamical Friction)	
Nov. 19	Dynamics (Applications)	**Exercise #10 due**
Nov. 21	**Thanksgiving Recess: no class**	
Nov. 26	Dynamics (Applications)	**Exercise #11 due**
Nov. 28	ISM	
Nov. 30	Emission line spectra	*extra class*
Dec. 3	Star formation	**Exercise #12 due**
Dec. 5	Chemical evolution	
Dec. 10	Black holes & Active galactic nuclei	**Exercise #13 due**
Dec. 12	Gravitational lensing	