

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.

<i>Sep. 5</i>	Inventory	
<i>Sep. 10</i>	Light I	
<i>Sep. 12</i>	Light II & Telescopes	
<i>Sep. 17</i>	Atmosphere & Detectors	Exercise #1 due
<i>Sep. 21</i>	Images & Spectra	<i>rescheduled for Friday</i>
<i>Sep. 24</i>	Distance Ladder	Exercise #2 due
<i>Sep. 26</i>	Cosmology	
<i>Oct. 1</i>	Structure Formation	Exercise #3 due
<i>Oct. 3</i>	Galaxies	
<i>Oct. 9</i>	Galaxies	Exercise #4 due; Legislative Day
<i>Oct. 10</i>	Interstellar medium	<i>MRB travel, may reschedule</i>
<i>Oct. 15</i>	Stellar clusters	Exercise #5 due
<i>Oct. 17</i>	Stellar evolution	
<i>Oct. 22</i>	Stellar populations	Exercise #6 due
<i>Oct. 24</i>	Stellar dynamics	
<i>Oct. 29</i>	Stellar dynamics	Exercise #7 due
<i>Oct. 31</i>	Emission line spectra	
<i>Nov. 5</i>	<i>No class</i>	<i>MRB travel</i>
<i>Nov. 7</i>	Star formation	Exercise #8 due
<i>Nov. 12</i>	Nucleosynthesis	Exercise #9 due
<i>Nov. 14</i>	Chemical evolution	
<i>Nov. 19</i>	Black holes in galaxies	Exercise #10 due
<i>Nov. 21</i>	Thanksgiving Recess: no class	
<i>Nov. 26</i>	Active galactic nuclei	Exercise #11 due
<i>Nov. 28</i>	Gravitational lensing & clusters	
<i>Dec. 3</i>	Gravitational lensing	Exercise #12 due
<i>Dec. 5</i>	Groups	
<i>Dec. 10</i>	High redshift galaxies	Exercise #13 due
<i>Dec. 12</i>	Ly- α forest	