

## Schedule – Astronomy 2020: Stars, Galaxies and the Universe

Prof. Tom Megeath		MH 2002	Spring Semester 2010
Date	Chapter	Topic (schedule approximate; subject to change)	
12 Jan	1	Intro to the class, The size of the Universe	
14 Jan	1	The history of the universe	
19 Jan	2	Constellations and the distances to the stars HW #1 given	
21 Jan	4	Gravity and the laws of motion	
26 Jan	5	Light, spectra and blackbody HW #2 given, HW #1 back	
28 Jan	6	Observing the universe: telescopes	
02 Feb	14	The Sun and the stars HW #3 given, HW #2 back	
04 Feb	15	The HR diagram and stellar clusters	
09 Feb	17	The origin of stars HW #4 given, HW #3 back	
11 Feb	16	Stellar evolution	
16 Feb		Review of homework solutions and review for test. HW #4 back	
18 Feb		<b>MIDTERM EXAM #1 – all material through stellar evolution</b>	
23 Feb	18	The cosmic graveyard: white dwarfs and neutron stars	
25 Feb	18, 19	Our galaxy and black holes	
02 Mar	17, 19	The interstellar medium and cosmic recycling HW#5 given	
04 Mar	19	Other galaxies and the expansion of galaxies	
09 Mar		Spring Break	
11 Mar		Spring Break	
16 Mar		Provisional: Planetarium show – meet at Ritter Planetarium	
18 Mar	20	The Cosmic Web, HW #5 back, HW #6 out	
23 Mar	21	Galaxy Evolution	
25 Mar		Review of homework solutions and review for test HW #6 back	
30 Mar		<b>MIDTERM EXAM #2 - cosmic graveyard through the cosmic web</b>	
01 Apr	S2	Special relativity	
06 Apr	S3	General relativity, planetarium reports due	
08 Apr	S3	General Relativity	
13 Apr	22	Dark energy, Cosmology and the Big Bang HW #7 given	
15 Apr	S4	The Cosmic Microwave Background	
20 Apr	23	Quantum mechanics and the first 380,000 years HW #8 given, HW #7 back	
22 Apr	12/17/22	The future of the Earth, Sun and the Universe	
27 Apr	24	The Search for Extraterrestrial Life HW#8 back	
29 Apr		Review of homework and review for test	
<b>06 May</b>	<b>All</b>	<b>FINAL EXAM 10:15-12:15 - everything!!</b>	

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Webpage: <http://astro1.physics.utoledo.edu/~megeath/A2020/A2020.html>

[megeath@physics.utoledo.edu](mailto:megeath@physics.utoledo.edu) (please put A2020 in subject)

**Office hours:**

Monday 11-12, Wednesday 1-2, Friday 11-12 (subject to change - check my web page)

**Grading:**

There will be two midterms, eight homework sets and a final exam. In addition, attending the planetarium show and writing a one page report on the show will count as two grades total. The final grade breakdown is 30% final, 40% midterm, and 30% homework.

**Lectures:**

PDF files of the lecture slides will be available on the class website. I will try to get the slides on the site within one day after the lecture, but it may occasionally take as long as one week.

**Questions:**

Please ask questions! If you do not feel comfortable asking a question in class, please send me an email.

**Math and Level of this Course:**

*This is not the basic level astronomy course for non-science majors.* If you are just looking for a course to satisfy your science requirement, take Astro 1010. Astro 2020 is intended for science majors, education majors, and others who have a real interest in astronomy. The course does involve some basic mathematics. You will be expected to know high school level algebra and geometry, scientific notation, and the metric system.

**Academic Dishonesty:**

The university of Toledo has a policy towards academic dishonesty on their website. Every student has a responsibility to know this policy. This policy will be strictly enforced in this class.

([http://www.dl.utoledo.edu/current\\_students/academic\\_dishonesty.htm](http://www.dl.utoledo.edu/current_students/academic_dishonesty.htm))

**Classroom Distractions:**

Please be courteous to your fellow students and try to minimize distractions. Disable all cell phone ringers, beepers, alarms, etc before the lecture. I will ask anyone to leave for the remainder of a lecture if they take a call in class.