

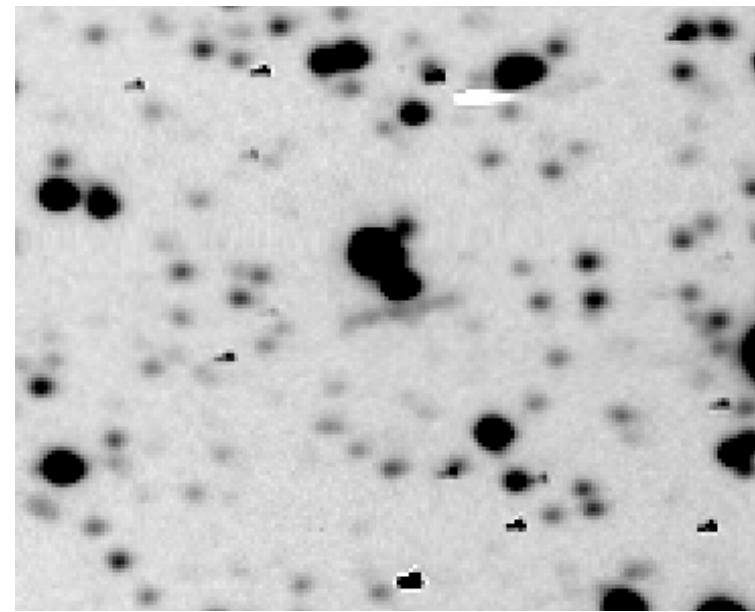
Astronomy 102

- Astronomy for non-science students
- Lecture Sections: A01 TWR 12:30 Elliott 167



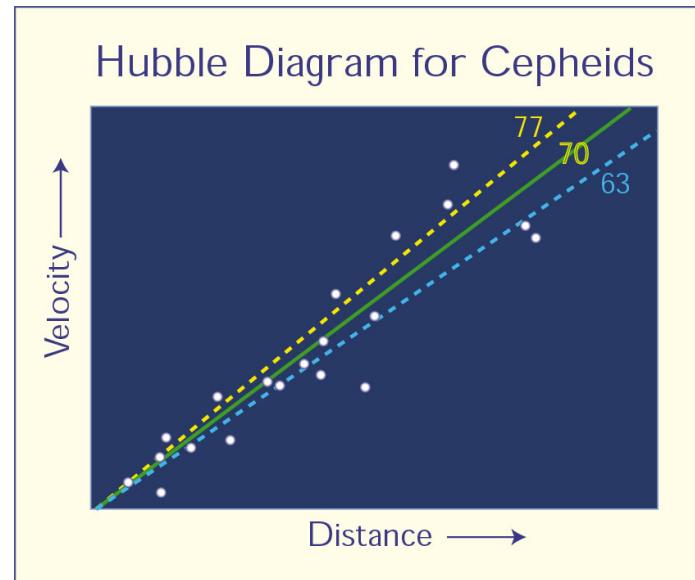
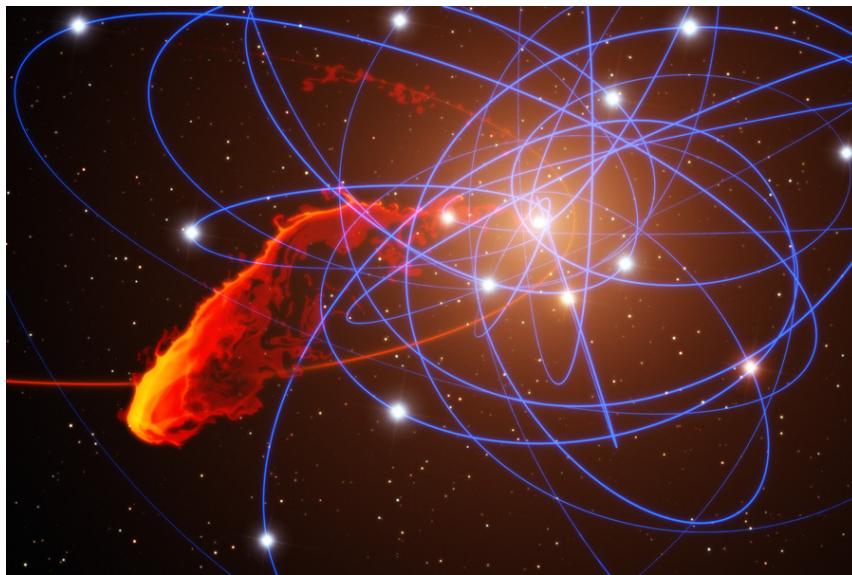
Russell Robb

- Please call me Russ
- robb@uvic.ca
- Put Subject: Astr 102
- <http://astrowww.phys.uvic.ca/~robb/>
- Office: Bob Wright A115 in afternoons
- Phone 250-721-7750
- I have taught this course since Feb 2001
- I have been the author of 178 astronomy articles
- Mostly variable stars, asteroids, extrasolar planets



Prerequisites

- Interest in Astronomy
- “The great book of nature can be read only by those who know the language in which it is written. And this language is mathematics” Galileo
- You need + - X ÷ push the log button
- Significant figures /Scientific Notation/Light Time



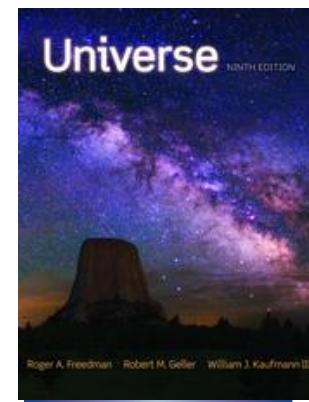
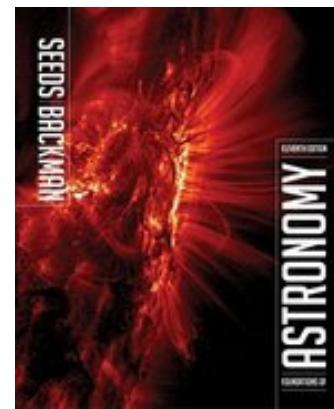
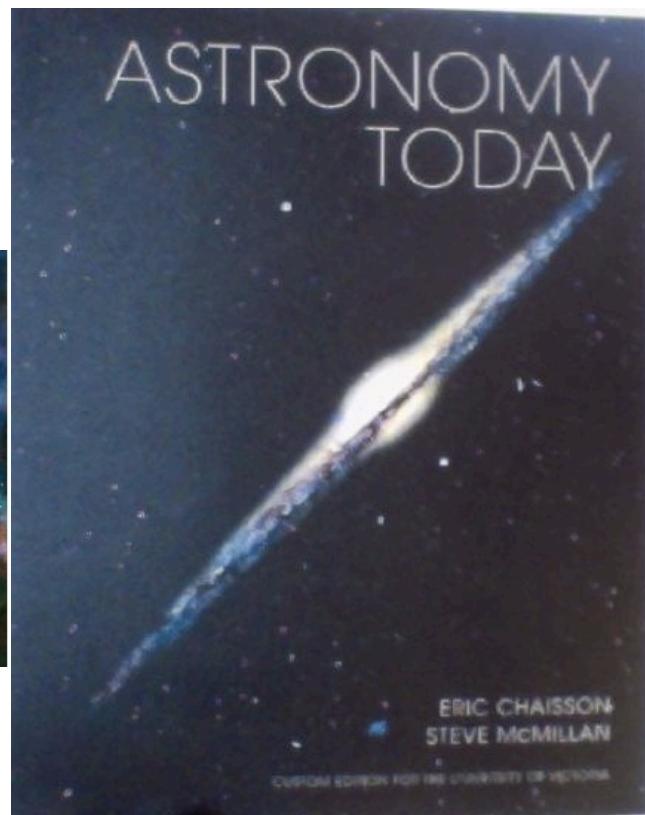
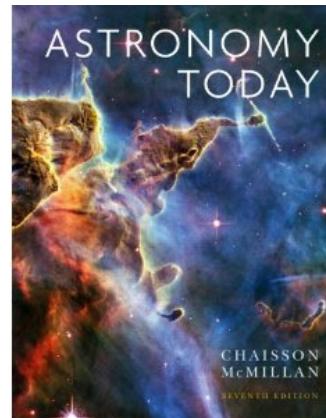
Text: Astronomy Today by Chaisson & Macmillan

OR Universe: Freedman & Geller

OR Foundations of Astronomy: Michael Seeds

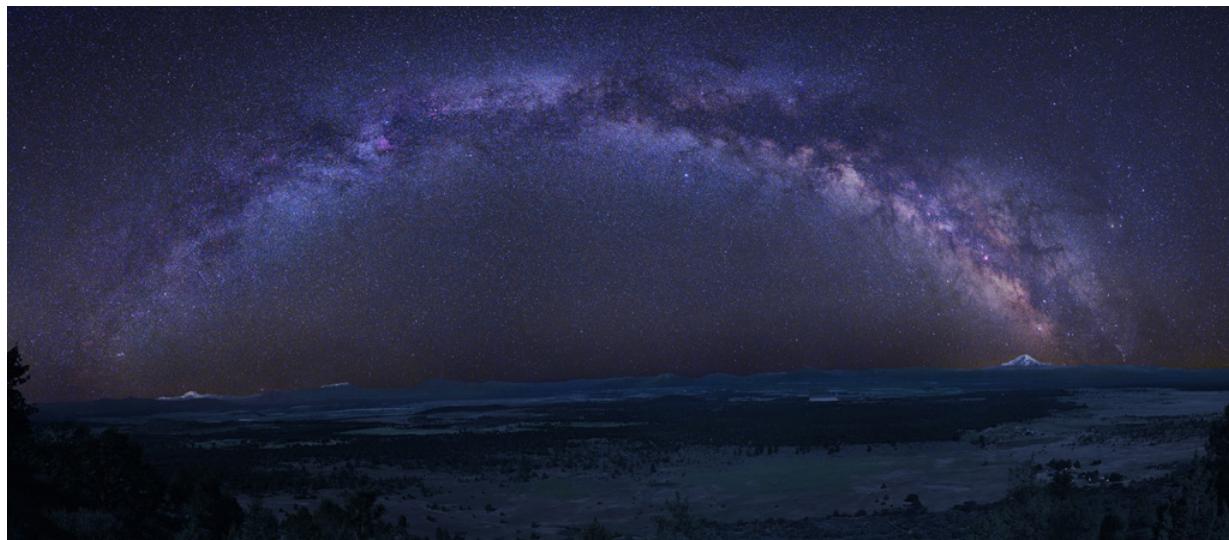
- Lab Manual July13**

- Sky and Telescope
- Astronomy
- Skynews
- Scientific American
- Astro Picture of the Day
- Royal Astronomical Society 2nd Wed of Month



Marking Guideline

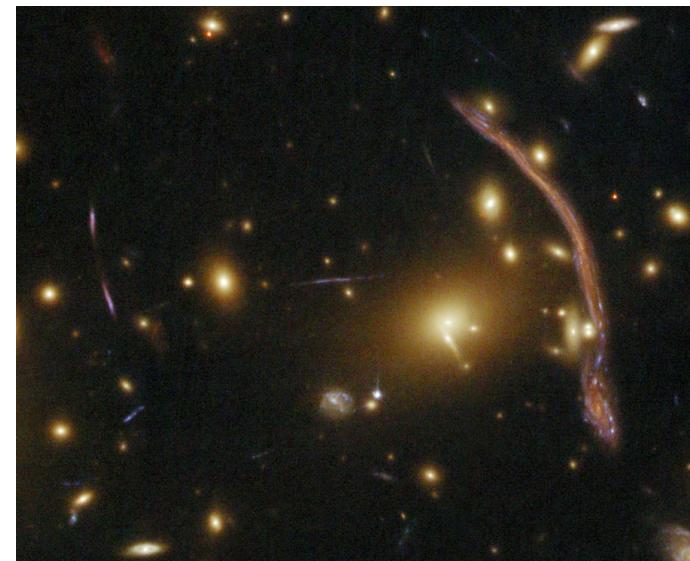
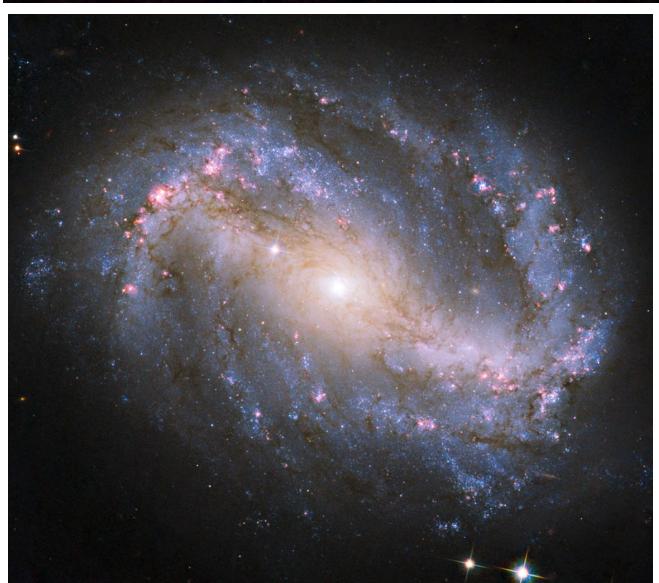
- Iclicker 06% ~15 – one per lecture
- Quizzes 30% 4 -40min in class
- Laboratory 22% 5 -**MUST PASS LABS TO PASS COURSE**
- Examination 42% 3hour ~80 multiple choice + a few short answer
- 100% -- 90 -- 85 -- 80 -- 77 -- 73 -- 70 -- 65 -- 60 – 50% --0%
- A+ A A- B+ B B- C+ C D F
- No No No No Late Quizzes unless doctor's note or H1N1 email Early Okay
- Some scaling between sections



Astro 102 Course Outline May 2014

Quizzes will be done in class on the dates below
Night Lab when weather is clear

Date	Subject	Chapt	Quiz	Lab
13 May	Introduction	1.1		
14 May	Sun	16,3,5,4.1		
15 May	Properties of Stars	17,1.6		Night Lab #1
20 May	ISM + Binary Stars	18		Night Lab #1
21 May	Star Formation	19		
22 May	Star Evolution	20		Night Lab #1
27 May	Quiz 1	16-20	Q1	Spectra#4
28 May	Novae & Supernovae	21		
29 May	Pulsars & Black Holes	22		
03 Jun	Quiz 2	21,22	Q2	CMD#5
04 Jun	Milky Way	23		
05 Jun	Galaxies	24		
10 Jun	AGN's	25		Galaxy#6
11 Jun	Dark Matter			
12 Jun	Quiz 3	23,24,25	Q3	
17 Jun	Cosmology	26		Universe#7
18 Jun	Early Universe	27		
19 Jun	Quiz #4	26,27	Q4	
24 Jun	Fate of Universe			
25 Jun	Review			
26 Jun	Exam			

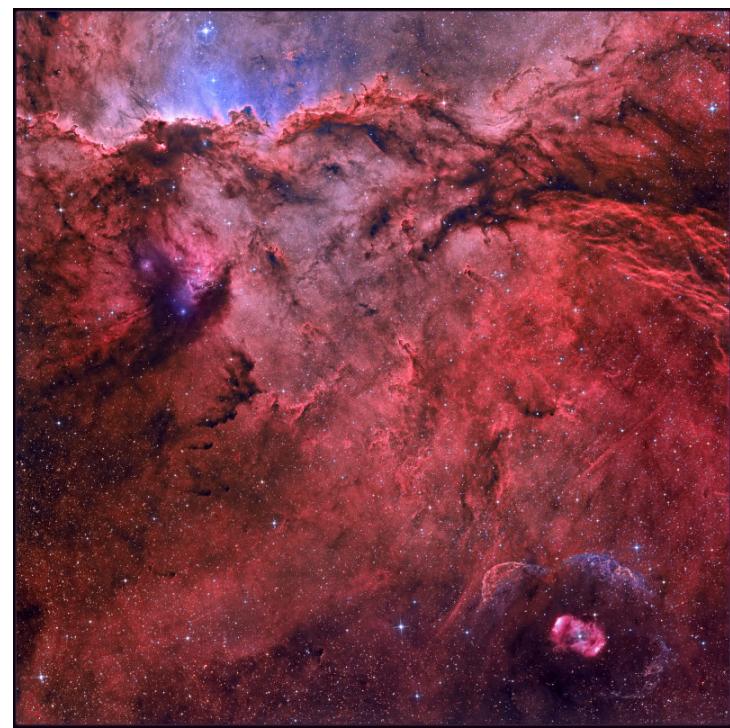
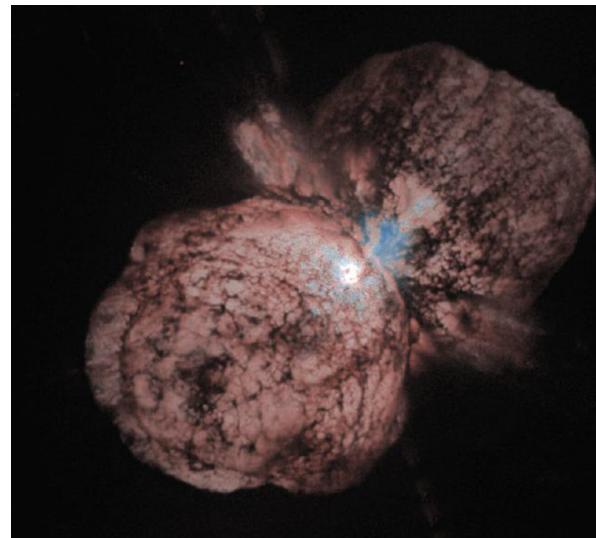


Astronomy 102 Labs May-June 2014

**Register in a lab section &
Buy July2013 Lab Manual or get pdf online**

If you are not registered in a lab section please come and see me after class

- There will be 5 labs
- Read over the lab before you come
- Taught by Graduate Students
- Will last 3 hours
- Signed and Dated at end of lab
- Take home and finish writing up
- Hand in to box in hall outside Elliott 403
- Marked – 9/10 is good- Handed back at next lab
- If not done then the dreaded take home lab.
- Marks will be posted outside the lab room = A111
Bob Wright Centre



Night Lab #1

- To see the stars it needs to be night
- Sunset= 8:44pm So meet 9pm @ A506 Bob Wright
- Thurs 15 May for B01, B02, B03
- Tues 20 May for B04 & B05. Thurs 22 May if cldy
- No regular daytime lab 20, 21, 22 May



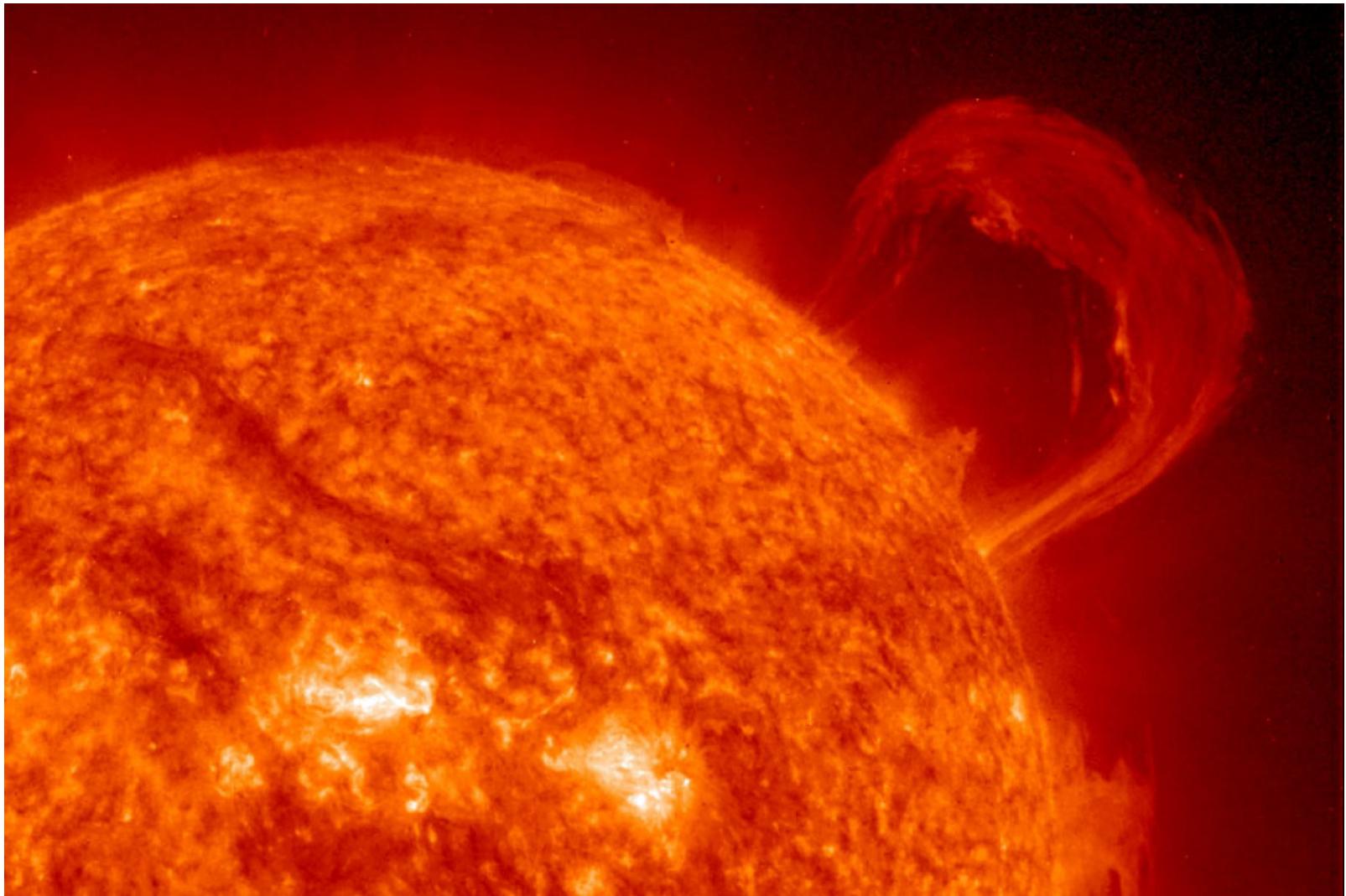
UVic Astronomy Open House

- Everyone Welcome
- 5th Floor Bob Wright
- 9-10pm Wednesdays



Sun 14May Chapter 16 (3.5&4.1)

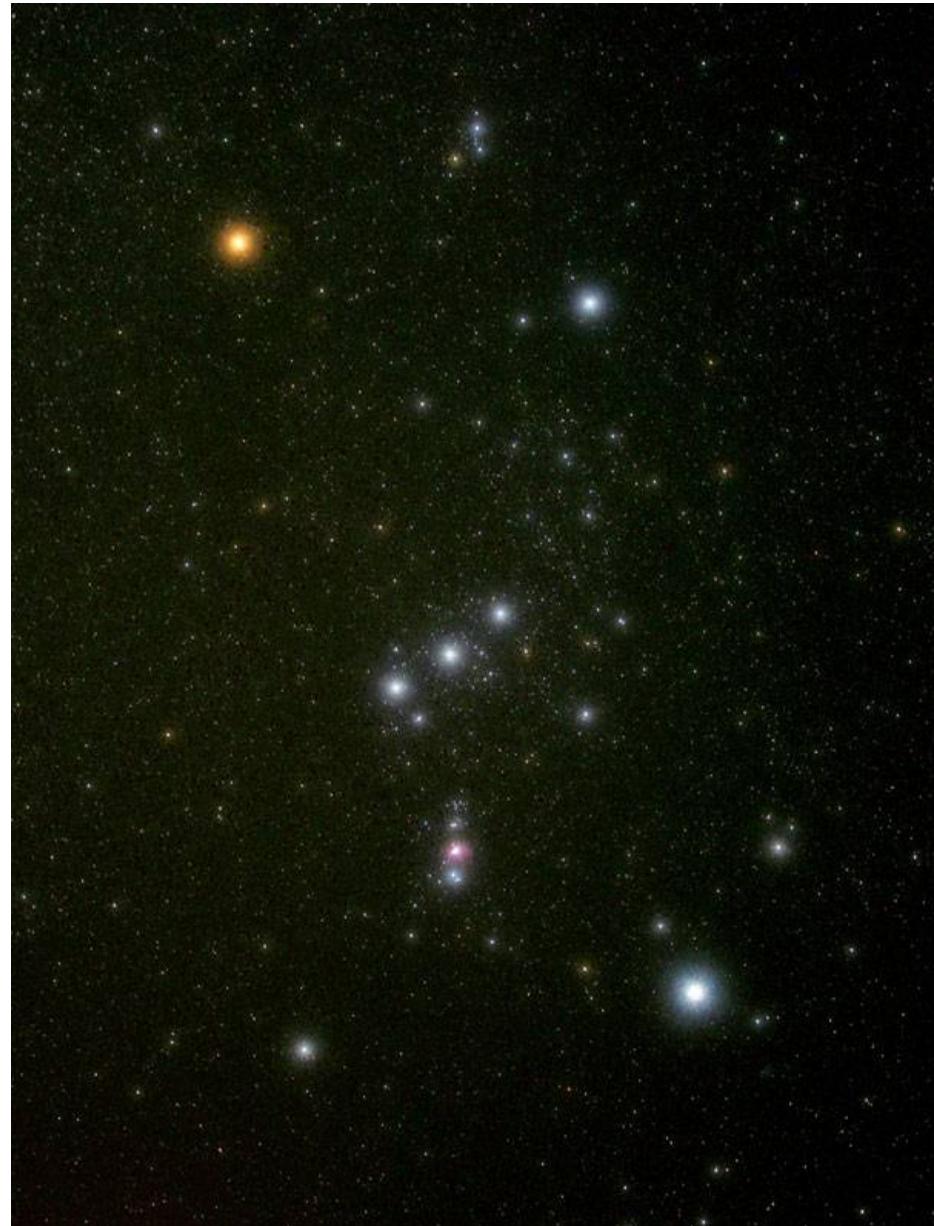
- What is the Sun composed of? Why is it hot?
- Does it change brightness? Dangerous explosions?



Star's Properties

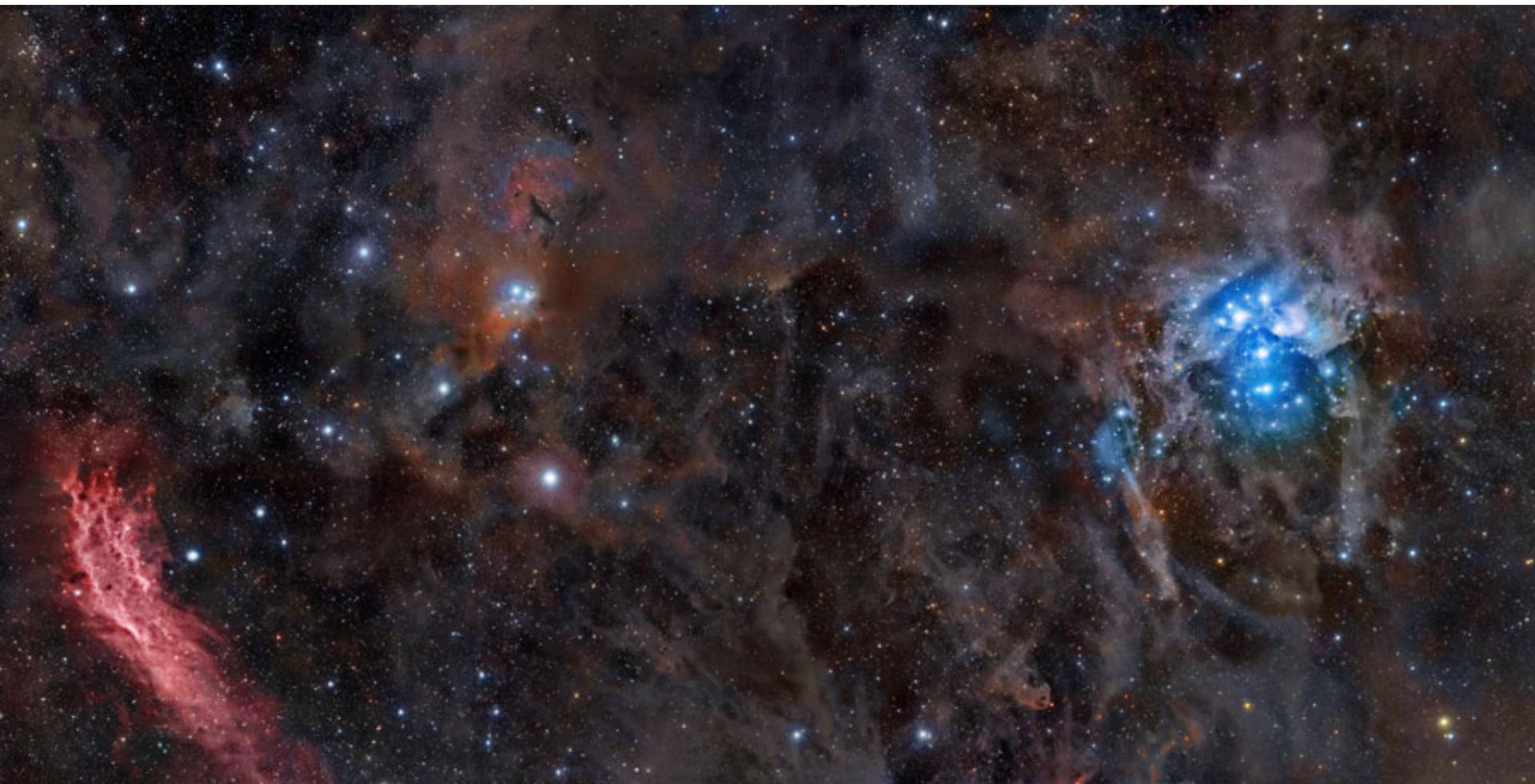
15May Chapter 17

- How big is a star?
- How hot? How many?
- How far? Could it hit us?



20May Between the Stars Chap18

- The interstellar medium glows red, blue and black
- Does the Sun pass thru these clouds?



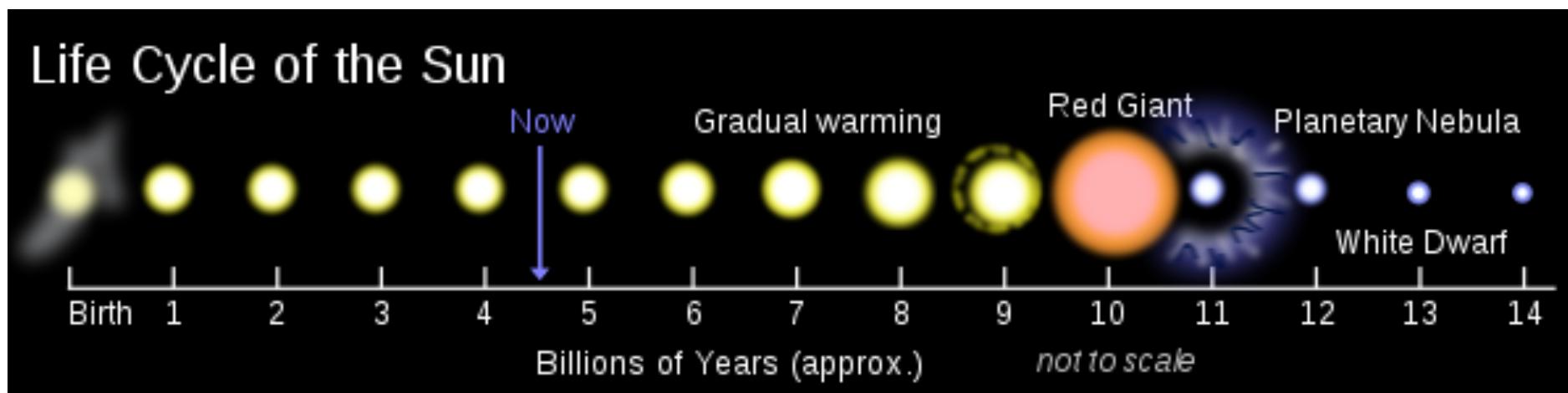
21May -Star Birth- Chap 19

- Where did the Sun/stars come from?



22May Stellar Evolution Chap 20

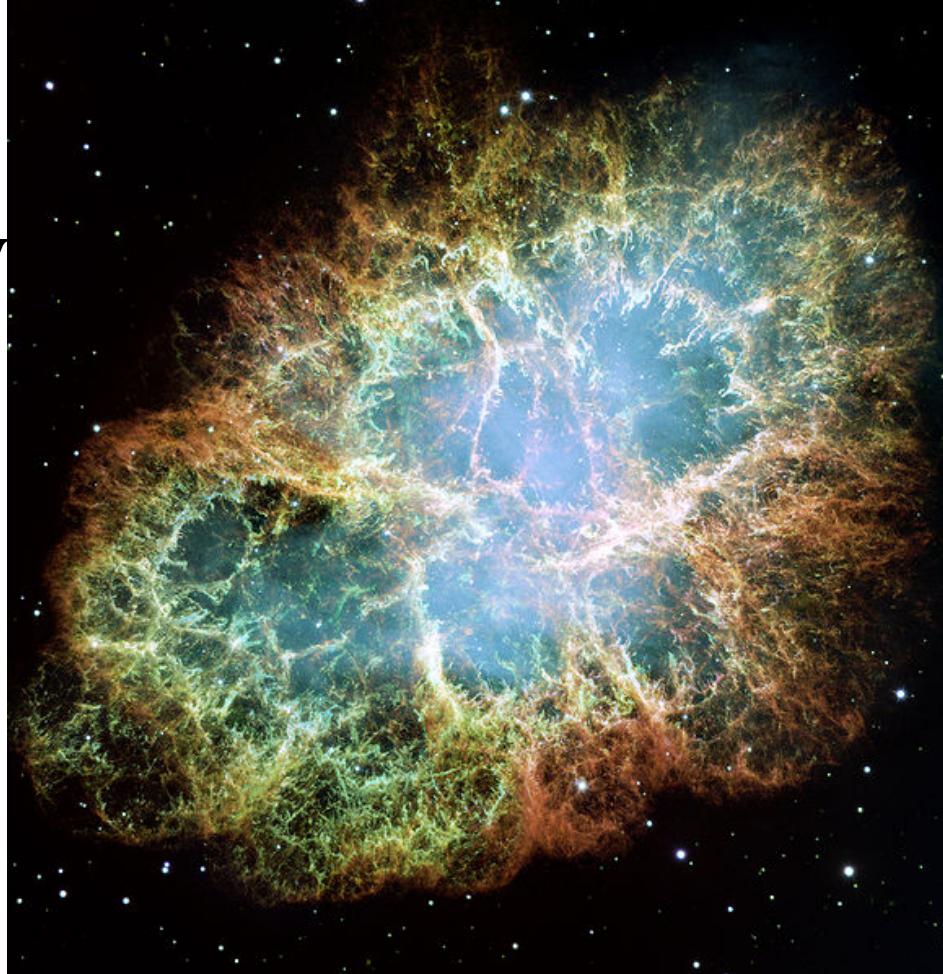
- Will the Sun last forever?
- What happens to the Earth?



Neutron Stars Black Holes 28May

Chap 21&22

- Stars blow up?!?



04Jun -Milky Way- Chap23

- Billions of stars take millions of years to orbit
- Tens of thousands of light years
- Big Black Hole in Center ?!?



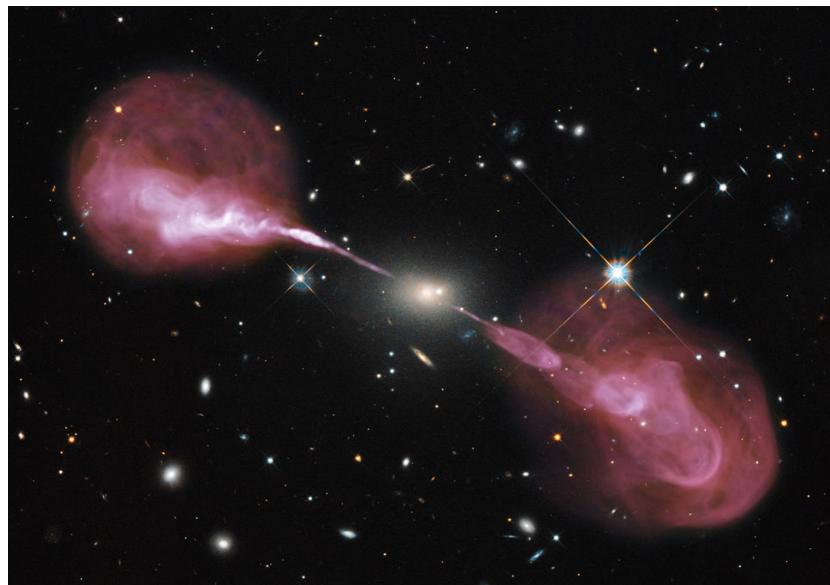
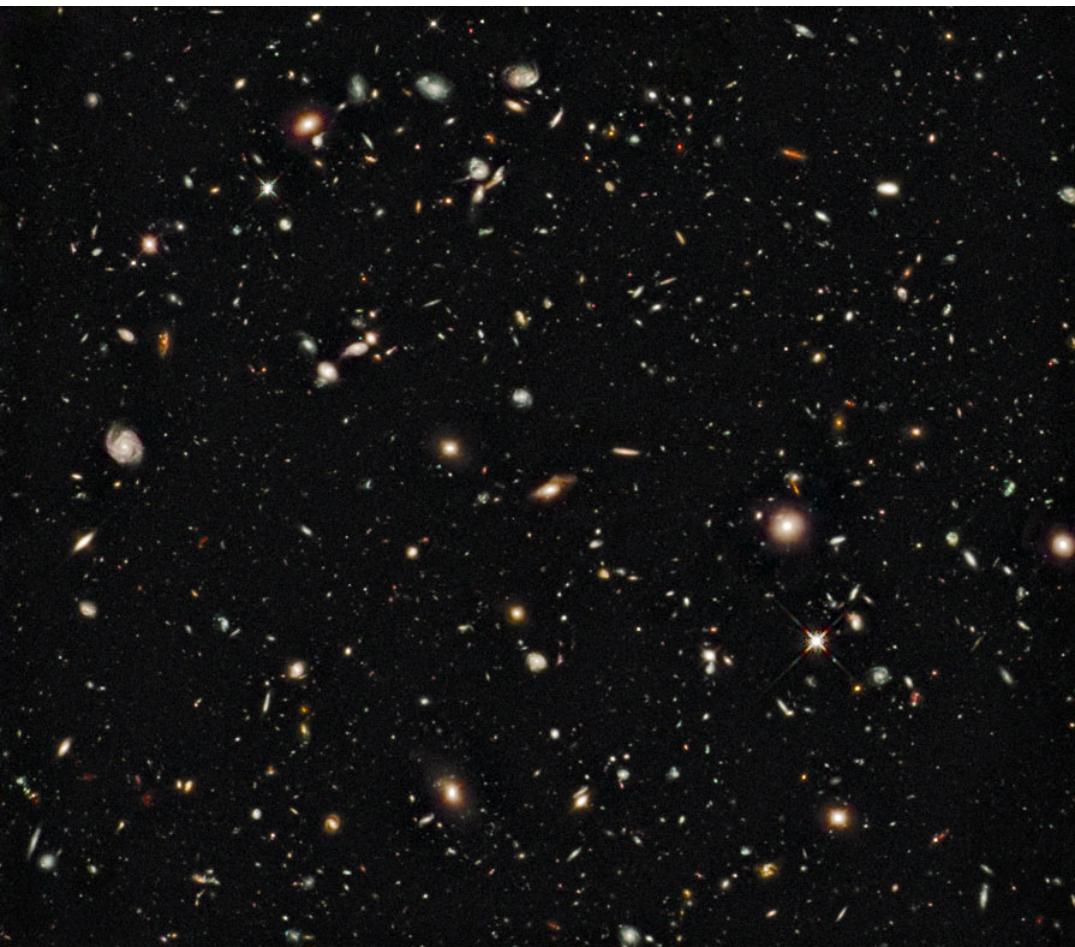
05Jun Andromeda Galaxy Chap 24

- Distance ~2 million light years ~100 Billion stars
- Will it hit us ?!?



11Jun Dark Matter Chap 25

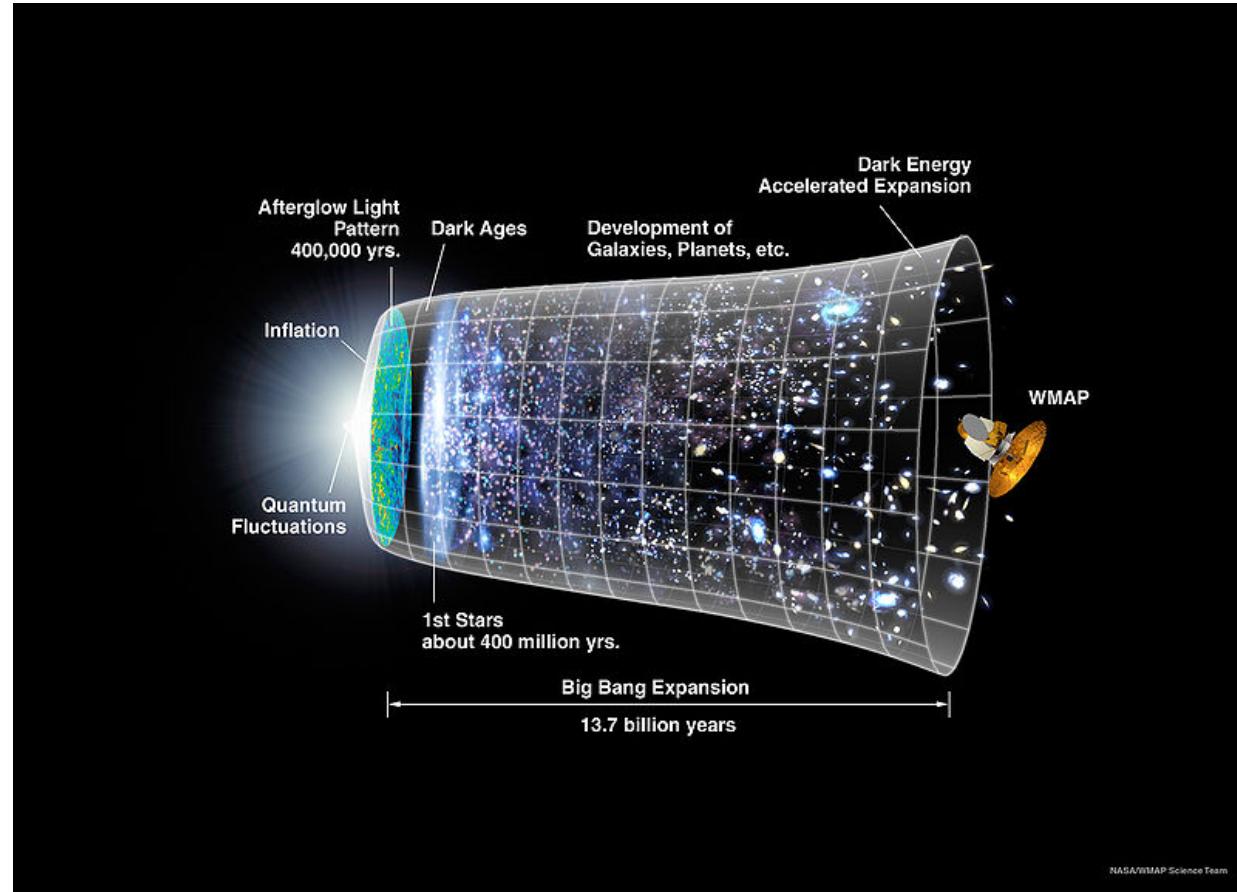
- Billions of Galaxies – Each contains billions of stars
- Made out of stuff we can not see
- With jets coming out of Black Holes??



Big Bang Cosmology

17Jun Chap 26&27

- When did the universe form? Where? How big?
- What's it made of? What will become of it?
- Are there more?



Universe: Bounded in Distance

- Foreground Stars and Andromeda Galaxy
- The original is “Power of Ten” made 50 years ago



You must pass the labs to pass the course

Astronomy 102 Lab Schedule Winter 2013

All labs will be in A111 Bob Wright Centre.

Sect	Instr	Day	Time	#4 Spectra	#3 POSS	#5 CMD	#6 Galaxy	#7 Universe
301		Mon	1300-1550	14Jan	28Jan	25Mar	04Mar	18Mar
302		Mon	1600-1850	14Jan	28Jan	25Mar	04Mar	18Mar
303		Mon	1900-2150	14Jan	28Jan	25Mar	04Mar	18Mar
304		Tues	1230-1520	15Jan	29Jan	12Feb	05Mar	19Mar
305		Tues	1530-1820	15Jan	29Jan	12Feb	05Mar	19Mar
306		Tues	1830-2120	15Jan	29Jan	12Feb	05Mar	19Mar
307		Wed	1230-1520	16Jan	30Jan	13Feb	06Mar	20Mar
308		Wed	1830-2130	16Jan	30Jan	13Feb	06Mar	20Mar
309		Thur	1000-1250	17Jan	31Jan	14Feb	07Mar	21Mar
310		Thur	1300-1550	17Jan	31Jan	14Feb	07Mar	21Mar
311		Thur	1600-1850	17Jan	31Jan	14Feb	07Mar	21Mar

