UNIVERSITY OF CALGARY
DEPARTMENT OF PHYSICS and ASTRONOMY
COURSE OUTLINE

1. ASTR 207, Lec 21, Intro To Astronomy I-The Solar System

L21: TuTh, 12:00 pm – 2:45 pm, SB 103

Instructor: Dr. Lisa Glass, Office: SB 631 **Phone:** (403) 521-3902, **email:** lisa.glass@albertahealthservices.ca
I will try to respond to emails within 24 hours on weekdays.

Office Hours: Held in **MS 319** on:
- Tuesdays from 3:30 pm to 4:30 pm and
- Thursdays 10:00 am to 11:00 am

Everyone is highly encouraged to attend!

All slideshow presentations, assignments, and handouts will be on Blackboard. *To access:*
1) Go to http://my.ucalgary.ca/.
2) Log on with your eID and password.
3) Click on Blackboard under Quick Links on the right hand side
4) Click on ASTR 207 under "My Courses"

2. **ANTIREQUISITES:** Not open to students with credit in Astronomy 205, 213 or Astrophysics 213. Not recommended for physical science majors.

3. **GRADING**: The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Tests (4)	30%	(4 tests, worth 7.5% each; see Schedule)
Measuring the Day Term Project (1)	20%	
Astronomy News Assignments (3)	15%	(3 assignments, worth 5% each)
Final Examination (1)	35%	(3 hours: To be scheduled by the Registrar)

Further details on grading:

a) **Tests**: There will be **5** weekly tests over the semester, but the test with the lowest grade will not be counted. Tests may be questions in the format of multiple choice, true and false, fill-in-the-blank and short answer. Tests will cover only material since the last test. (They will not be cumulative). You will have 25 minutes to do each test. Tests will be held in class starting **promptly** at 12:00 pm, so please be on time!

b) **Measuring the Day Term Project:** This is a term project where you'll design your own "experiment" to measure the length of the day, make your own astronomical measurements, and write a short report. See project handout for details and Schedule for due date.

c) **Astronomy News Assignments:** In these three (3) assignments, you'll find examples of astronomy making the news and write brief summary of the stories. See assignment handout for details and Schedule for due dates.

d) **Final Exam**: There will be a 3 hour final exam scheduled by the Registrar. The format will be very similar to the weekly tests, but longer and will cover material from the entire semester. **A grade of 50% or greater on the final exam is necessary to obtain a passing grade in the course.**

Each piece of work (assignments, project, tests, and final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade [bearing in mind that an F grade will result if the student does not pass the final exam with a grade of 50% or higher]. The conversion between course percentage and letter grade is given on the next page.

No individual component of the course will have its grade scaled or "curved". However, the ***final*** grade for the course may be scaled or "curved" upwards at the discretion of the instructor. Final grades will never be scaled lower.

Department Approval_____ **Date**_____

Conversion between course percentage and letter grades:

95 - 100%	A+	65 - 69.9%	C+
90 - 94.9%	A	60 - 64.9%	C
85 - 89.9%	A-	55 - 59.9%	C-
80 - 84.9%	B+	50 - 54.9%	D+
75 - 79.9%	B	45 - 49.9%	D
70 - 74.9%	B-	0 - 44.9%	F

4. **Missed Components of Term Work**. The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in section 3.6: **http://www.ucalgary.ca/pubs/calendar/current/sc-3-6.html**. It is the student's responsibility to familiarize himself/herself with these regulations. See also **http://www.ucalgary.ca/pubs/calendar/current/e-3.html**.

5. **REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY**. If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **TEXTBOOK**: There are TWO required textbooks for this course:
   1) ***"Lecture Tutorials For Introductory Astronomy, 3rd Edition" by Prather et al.*** Bring this one to lecture!
   2) ***"Cosmic Perspective : The Solar System W/Mastering Astronomy, 6th Edition" by Bennett et al.***

7. **WHAT TO BRING TO LECTURE**:
   - "Lecture Tutorials For Introductory Astronomy" workbook
   - Pen or pencil
   - **Dedicated** scientific calculator; see section 9.(i) below
   - Multicoloured "A B C D" voting paper
   - Paper, if desired for note taking (not necessary)

8. **EXAMINATION POLICY**: Students are encouraged to read the Calendar, Section G, on Examinations: **http://www.ucalgary.ca/pubs/calendar/current/g.html**.

9. OTHER IMPORTANT INFORMATION FOR STUDENTS:

(a) ACADEMIC MISCONDUCT (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under K. Student Misconduct (**http://www.ucalgary.ca/pubs/calendar/current/k.html**) to inform yourself of definitions, processes and penalties

(b) ASSEMBLY POINTS in case of emergency during class time. Be sure to FAMILIARIZE YOURSELF with the information at http://www.ucalgary.ca/emergencyplan/assemblypoints.

(c) ACADEMIC ACCOMMODATION POLICY. Students with documentable disabilities are referred to the following links:
Calendar entry on students with disabilities: **http://www.ucalgary.ca/pubs/calendar/current/b-1.html**
Disability Resource Centre: **http://www.ucalgary.ca/drc/**

(d) SAFEWALK: Campus Security will escort individuals day or night (**http://www.ucalgary.ca/security/safewalk/**). Call **220-5333** for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

(e) FREEDOM OF INFORMATION AND PRIVACY: This course will be conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence**, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page**. For more information see also **http://www.ucalgary.ca/secretariat/privacy.**

(f) STUDENT UNION INFORMATION: VP Academic **Phone**: 220-3911 **Email**: suvpaca@ucagary.ca.
SU Faculty Rep. **Phone:** 220-3913 **Email:** sciencerep@su.ucalgary.ca Website **http://www.su.ucalgary.ca/home/contact.html**.
Student Ombudsman: **http://www.su.ucalgary.ca/services/student-services/student-rights.html**

(i) NO ELECTRONIC DEVICES ALLOWED DURING CLASSTIME. This includes laptops, tablets, cell phones, etc. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct. The only electronic devices allowed are basic scientific calculators (i.e. calculators that are only calculators and which cannot connect to the internet or wireless networks, **not** smartphones, tablets, laptops, etc.). These basic scientific calculators are welcome for use during lectures, tests, assignments, and lecture-tutorials.

Note that students with special circumstances (e.g. disabilities or injuries) can receive special permission to use electronic devices, as long as they speak with the instructor first.

Tentative Schedule

Lecture #	Date	Lesson #	Topic/Activity	Relevant Readings (from Cosmic Perspective)
1	14-May-13	1	Introduction	
		2	Our place in the universe	1 Our Place in the Universe, Sec. 1.1 to 1.2
		3	Spaceship Earth	1 Our Place in the Universe, Sec. 1.3 to 1.4
2	16-May-13	4	The night sky and the seasons	2 Discovering the Universe…, Sec. 2.1 to 2.2
		5	Moon and planets from Earth	2 Discovering the Universe…, Sec. 2.3 to 2.4
		6	Ancient to modern astronomy	3 The Science of Astronomy, Sec. 3.1 to 3.4
3	21-May-13	**ASTRONOMY NEWS ASSIGNMENT #1 DUE!**		
		7	Celestial timekeeping and coordinates	S1 Celestial Timekeeping and Navigation, S1.1 to S1.2
		8	Motion in space	4 Making Sense of the Univ..., Sec. 4.1 to 4.3
		9	Gravity	4 Making Sense of the Univ..., Sec. 4.4 to 4.5
4	23-May-13	10	**Test** (covering Lec. 1 to 3)	Chapters 1.1 to 4.5
		11	Light and matter	5 Light and Matter, Sec. 5.1 to 5.3
		12	Light spectra	5 Light and Matter, Sec. 5.4 to 5.5
5	28-May-13	13	Telescopes Part 1	6 Telescopes, Sec. 6.1 to 6.4
		14	Telescopes Part 2	6 Telescopes, Sec. 6.3 to 6.4
		15	Tour of the Solar System	7 Our Planetary System, 7.1
6	30-May-13	16	**Test** (covering Lec. 4 and 5)	Chapters 5.1 to 7.1
		17	Patterns in the solar system	7 Our Planetary System, 7.2 to 7.3
		18	Forming the solar system	8 Formation of the Solar System, Sec. 8.1 to 8.3
7	04-Jun-13	**ASTRONOMY NEWS ASSIGNMENT #2 DUE!**		
		19	Aftermath and age of solar sys.	8 Formation of the Solar System, Sec. 8.4 to 8.5
		20	Geology basics	9 Planetary Geology, Sec. 9.1 to 9.2
		21	Geology of specific bodies	9 Planetary Geology, Sec. 9.3 to 9.6
8	06-Jun-13	22	**Test** (covering Lec. 6 and 7)	Chapters 7.2 to 9.6
		23	Planetary atmosphere basics	10 Planetary Atmospheres, Sec. 10.1 to 10.2
		24	Atmospheres of specific bodies	10 Planetary Atmospheres, Sec. 10.3 to 10.6
9	11-Jun-13	25	Jovian planets	11 Jovian Planet Systems, Sec. 11.1
		26	Jovian satellites and rings	11 Jovian Planet Systems, Sec. 11.2 to 11.3
		27	Asteroids and Comets	12 Asteroids, Comets…, Sec. 12.1 to 12.2
10	13-Jun-13	28	**Test** (covering Lec. 8 and 9)	Chapters 10.1 to 12.2
		29	Pluto and collisions	12 Asteroids, Comets…, Sec. 12.3 to 12.4
		30	Detecting extrasolar planets	13 Other Planetary Systems, Sec. 13.1
11	18-Jun-13	**MEASURING THE DAY TERM PROJECT DUE!**		
		31	Discoveries of extrasolar planets	13 Other Planetary Systems, Sec. 13.2 to 13.4
		32	The Sun	14 Our Star, Sec. 14.1 to 14.2
		33	The Sun-Earth Connection	14 Our Star, Sec. 14.3
12	20-Jun-13	34	**Test** (covering Lec. 10 and 11)	Chapters 12.3 to 14.3
		35	Life in the solar system	24 Life in the Universe, 24.1 to 24.2
		36	Life on other worlds	24 Life in the Universe, 24.3 to 24.5
13	25-Jun-13	**ASTRONOMY NEWS ASSIGNMENT #3 DUE!**		
			Review	
Final Exam	27-29 Jun 13	**Final exam (scheduled by Registrar)**		