ASTRO 1810 General Astronomy Lab Syllabus

The labs provide an opportunity to complement and supplement the lecture course material in a different and practical, hands-on way. They do not rely directly on the lectures and are independent of them. The lab section will be divided into two groups which will meet on alternate weeks. Students will have one ASTRO 1810 lab roughly every two weeks. Students will be notified of their groups via email. A lab schedule is also included here.

Location:

Labs: 385 University College
Observing Trips: Ewen Campus Observatory (ECO)
Glenlea Astronomical Observatory (GAO), transportation provided

Contact Information

Instructor:	**Ms. Danielle Pahud**
Office:	221 Allen Physics Building
Phone:	204-474-6202
Email:	Danielle.Pahud@umanitoba.ca (prefered method of communication)
Website:	http://www.physics.umanitoba.ca/astro/?page_id=121
Office Hours:	Wednesdays 11:00 am-12:00 pm, Fridays 9:00am - 10:00am or by appointment

Times, Sections, and Teaching Assistants

Tuesday	8:30 am	B01	Benson Guest	umguest@myumanitoba.ca
Tuesday	2:30 pm	B02	Chelsea Braun	umbrau59@myumanitoba.ca
Thursday	8:30 am	B03	Erica Franzmann	umfranze@cc.umanitoba.ca
Thursday	2:30 pm	B04	Jordan Lasiuk	lasuikj@myumanitoba.ca

Communication

All email communication to your professors and TAs must include your name, your student ID number, the course and lab section you are registered in.

Materials Required:

30 cm Ruler (mm divisions)
Sharp pencil & eraser
Protractor
Calculator (optional)
Holographic Diffraction Grating (available from the book store)
Telescope Kit (available from the bookstore)

Requirements/Grading:

The labs are a mandatory component of ASTRO 1810 and passing the lab component is required for passing the course. Laboratory work provides 25% of the final ASTRO 1810 course grade. The lab grade is composed of:

- 5 laboratory laboratory exercises in lab (3% each)
- Glenlea Field Trip and Observing Exercises due at the end of November (5%)
- Observing Project (5%)

Laboratory exercises are to be completed in the lab and handed in at the end of the class period.

Late or Absence Policy

Should a student not be able to make their regularly scheduled lab session, they have the option to attend a different section. To switch lab sections, please contact Danielle Pahud and your TA as soon as possible. Once a lab exercise has been marked and handed back, there is no makeup possible

Observing Trips

Trips to the Glenlea Astronomical Observatory (GAO) will begin September 24th. Students MUST take the bus to get to Glenlea. A bus will be provided and will arrive in **Parking Lot B** at **7:00 pm** on days the trip takes place. Seating is first come, first served. The bus will leave at 7:30 pm and return to campus at 10:30 pm.

There will be one trip each on a Monday, Tuesday, Wednesday, and Thursday. The trips will occur on the first night possible, depending on the weather. **Trips will be announced via email by 5:00pm** on the day of the trip. **Students are responsible for making sure they are available for at least one trip.** Please check your email frequently as this will be the means by which announcements are made, such as when observing sessions will occur.

Lab Schedule

TUESDAYS	THURSDAYS	
Sept 11 - Celestial Sphere	Sept 13 - Celestial Sphere	Group A
Sept 18 - Celestial Sphere	Sept 20 - Celestial Sphere	Group B
Sept 25 - Spectroscopy	Sept 27 - Spectroscopy	Group A
Oct 2 - Spectroscopy	Oct 4 - Spectroscopy	Group B
No labs week of October 8th - 12th - Midterm		
Oct 16 - Moons of Jupiter	Oct 18 - Moons of Jupiter	Group A
Oct 23 - Moons of Jupiter	Oct 25 - Moons of Jupiter	Group B
Oct 30 - Telescopes	Nov 1 - Telescopes	Group A
No labs week of Nov 5th - 9th - Midterm		
No labs week of Nov 12th - 16th - Fall Break		
Nov 20 - Telescopes	Nov 22 - Telescopes	Group B
Nov 27 - Hubble Constant	Nov 29 - Hubble Constant	Group A
Dec 4 - Hubble Constant	Dec 6 - Hubble Constant	Group B