ASTRO 1020 Lab

Sunspots and Solar Rotation

Meet Your TA: Akshat Chaturvedi

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- First-year Astronomy PhD Student
- Research Interests
  - Stellar Evolution
  - Planetary Nebulae

Lab Expectations

- Lab manual is key
- **Please be on time**
- No food in the lab
- **Attendance**
- Excused absences
- Answer sheets

Excused Absences
Students may be excused from class for the following reasons:

•Authorized events where the student is an official representative of the University. This includes participating in athletic events, delegate to regional or national meetings, etc.
•Legal obligations which include jury duty and military commitments that require a student to be absent from class. These are typically scheduled in advance and it is the student's responsibility to let the instructor know as soon as possible.
•Death in the family.
•Illness and/or a medical emergency.

Printing & Submitting Labs
☞ **Please print the ASTR 1020 Lab Answer Sheets.**
While you are welcome to print the labs, your lab instructor will only **collect the Lab Answer Sheet**. This is done to make things as easy as possible for everyone. Your labs and answer sheets will be available on iCollege. Every student has access to printing which is available at all library locations.
Link to Printing Services
Note that Library North 1 and North 2 are right next to Langdale.

Grading

- All labs are scaled to be graded out of **10 points***

Points per question	Description
1.0	A correct answer **with** units **and** work shown. Answers that don't require work will be **graded on completion**
0.8	A correct answer **without** units or work shown
0.6	An incorrect answer **with** units **and** work shown
0.4	An incorrect answer **without** units or work shown
0.2	Some work shown **without** an answer
0.0	Not Attempted

Lab Schedule

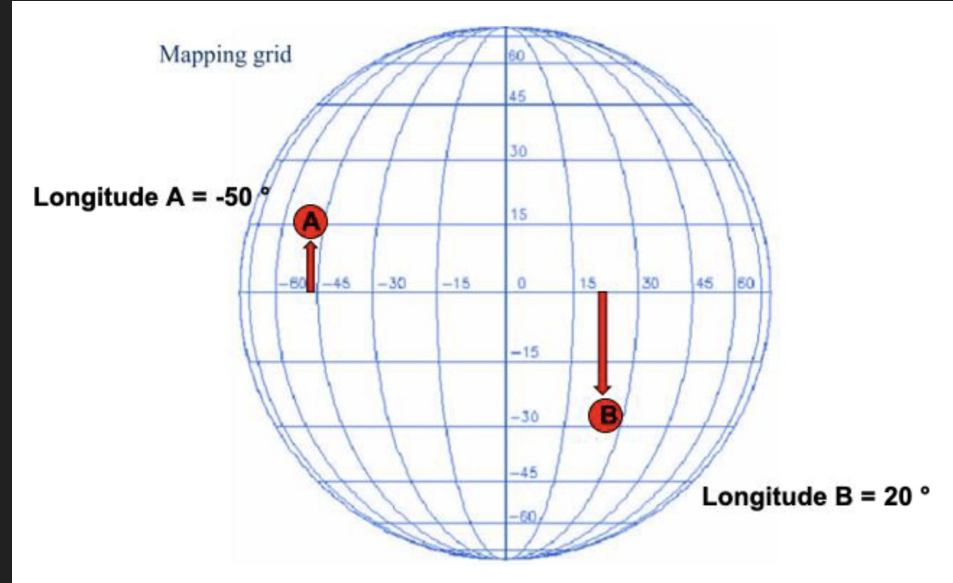| Lab	Dates	Topic
LAB 1	Sept 9 – 13	Sun
LAB 2	Sept 16 – 20	Spectra
LAB 3	Sept 23 – 27	Binary Stars
LAB 4	Sept 30 – Oct 4	Period-Luminosity
LAB 5	Oct 7 – 11	Hubble's Law
LAB 6	Oct 14 – 18	Galaxy Classification
LAB 7	Oct 21 – 25	Tully-Fisher Relation
LAB 8	Oct 28 – Nov 1	Star Clusters & Supernovae
LAB 9	Nov 4 – 8	Black Holes
Semester Project	Nov 18 – 22	

Things you need to know for Lab 1

- Solar features
- Using Excel/Google Sheets
- Reading longitudes
- Calculating averages

Mapping grid

Longitude A = -50 °

Longitude B = 20 °

Example:

You have 23, 54, and 72 and want to find the average.

You would add those number and divide by 3:

$$\frac{23 + 54 + 72}{3} = 49.6$$

Questions?