ASTR 1020: Stellar and Galactic Astronomy

Lab Syllabus

Fall 2018, 721 Langdall Hall

Course Description: This course is consisted of 10 activities and two projects which are designed for helping students understand the key concepts discussed in the lecture, ASTR 1020: Stellar and Galactic Astronomy.

Student Materials: Bring the following to class **every** lab period,

- Activities in Astronomy, 2013 Edition, by John W. Wilson,
- Pencils & Eraser.

Lab Grades (120 points total):

1) Lab Activities: 10 points each. 90 points total.

- Laboratory work is to be completed in class and turned in at the end of each lab period. Late labs, or lab work done outside of class will not be accepted.
- A pre-lab activity will be provided in the first 5 minutes of the lab, which would help you think about the key concepts of the day. The pre-lab will be also used to grade your attendance of the lab (1 point).
- Each completed lab will be scored on a scale of 0-10 points. Your lowest lab score will be dropped. If you miss lab for any reason, that lab will be dropped.
- Your average lab score will count as 25% of your overall ASTR 1020 grade.
- Failure to attend at least a half of the labs (more than 6 labs) will result in an F for the entire course because this is a lab science and lab attendance is required.

2) Term Project: 10 points. You can choose any topic related to ASTR 1020 course to proceed their projects. The types of the project can be various depending on the lab instructor's announcement. You will present your project at the end of the semester.

3) Visiting an Observatory: 10 points. You are expected to submit a report after attending one of On-Campus Observations or any public observatories.

4) Lab Evaluation: 10 points. You will do the lab evaluation in the last day of the lab.

Attendance: You must attend the lab section for which they have enrolled **every week**. It is not allowed to attend another section to make up a missed lab.

Honesty Policies: Students are expected to follow the honesty policies of the university. Any work that does not represent your own efforts will receive a score of zero. When group work is done, it is expected that each student in the group will reply to questions using their own words. **Do not copy other student's lab work or observation report.**

Lab Website: More information about labs, observing sessions, teaching schedules, etc can be found at http://www. astro.gsu.edu/lab

Tentative Weekly Schedule

Dates	Description
Aug. 20 – 24	Organization Week. ***NO LABS MEET!***
Aug. 27 – 31	Lab 11: Rotation of the Sun **Final reports:** Term project: Project Presentation (10 pts) Visiting an Observatory (10 pts) Both are **required** and cannot be dropped.
Sep. 3 – 7	Labors Day Week. ***NO LABS MEET!***
Sep. 10 – 14	Lab 10: Spectroscopy and Atomic Structure
Sep. 17 – 21	Handout: Classification of Stellar Spectra
Sep. 24 – 28	Lab 12: Eclipsing and Spectroscopic Binary Stars
Oct. 1 – 5	Handout: Photometry of the Pleiades
Oct. 8 – 12	Lab 13: Ages and Distances of Star Clusters
Oct. 15 – 19	Lab 14: The Period-Luminosity Relationship
Oct. 22 – 26	*Handout*: Galaxy Classification
Oct. 29 – Nov. 2	Lab 15: Hubble's Law
Nov. 5 – 9	*Handout*: HI Spectroscopy
Nov. 12 – 16	**Term project due**: Project Presentation. Attendance is **required**.
Nov. 19 – 23	Thanksgiving Break. ***NO LABS MEET!***
Nov. 26 – 30	Lab Evaluation. **Observatory report due**. Attendance is **required**. To receive credit for this lab, you must turn in the completed and signed page from Observatory report in your lab manual. Your lab instructor will announce, in lab, evening observations to be held on campus to complete this requirement, OR you can attend any public night at a local observatory such as Fernbank Science Center, or Hard Labor Creek Observatory.

Lab Instructor's Name:
Lab Instructor's Email:
Lab Instructor's Office:

If you encounter problems that your lab instructor cannot handle, please contact your lecture class instructor and/or the Astronomy Lab Manager, Dr. John Wilson (wilson@astro.gsu.edu).