

# ASTR 1020: Stellar & Galactic Astronomy

## Lab Syllabus

Fall 2017 \* 516 Kell Hall

**Labs begin on September 1<sup>st</sup>.**

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

- Activities in Astronomy, 2013 Edition, by John W. Wilson,
- Pencils & Eraser,
- Scientific calculator (not a cell phone!).

**Attendance:** Students must attend the lab section for which they have enrolled. Because many labs are full, students **cannot** attend another section to make up a missed lab class. However, your lowest score will be dropped.

**Honesty Policy:** 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. Therefore, **do not copy other student's lab work or observations.**

### Lab Grades:

- Lab 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.
- Each completed lab will be scored on a scale of 0-10 points. Your lowest lab score will be dropped. Therefore, if you miss lab for any reason that will become your dropped score.
- Your average lab score will count as 25% of your overall ASTR 1020 grade.
- Failure to attend at least half of the lab classes will result in an F for the entire course because this is a lab science and lab attendance is required. So if you make an A in lecture but do not regularly attend lab you will fail the course.

**Extra Credit:** There are 10 extra credit points available in the lab.

- 4 Points: Attending a Hard Labor Creek Observatory Open House.
- 3 Points: Visiting a second (different) observatory, in addition to the one required for Lab 28.
- 3 Points: Presenting your term project in lab at the end of the semester.

**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
Sep. 1	Lab 11: Rotation of the Sun <b>TERM PROJECT:</b> Project Medley (20 pts). Lab 28: Visiting an Observatory Both are <b>required</b> and cannot be dropped. Both are <b>due</b> on the last day of lab.
Sep. 8	<b>LABOR DAY BREAK! NO LABS MEET!</b>
Sep. 15	Lab 10: Spectroscopy and Atomic Structure
Sep. 22	<i>Handout:</i> CLEA: Spectral Classification <b>Choose Project Medley Topic</b>
Sep. 29	Lab 12: Eclipsing and Spectroscopic Binary Stars
Oct. 6	<i>Handout:</i> CLEA: Photometry of the Pleiades <b>Turn in Semester Project Medley Outline (5 points)</b>
Oct. 13	Lab 13: Ages and Distances of Star Clusters
Oct. 20	Lab 14: The Period-Luminosity Relationship
Oct. 27	<i>Handout:</i> CLEA: Radio Astronomy of Pulsars
Nov. 3	Lab 15: Hubble's Law
Nov. 10	<i>Handout:</i> Galaxy Classification (Subject to Change!)
Nov. 17	<i>Handout:</i> Presentation Evaluations (Subject to Change!) <b>Turn in Semester Project Medley</b>
Nov. 24	<b>Thanksgiving Break: NO LABS</b>
Dec. 1	Lab Evaluation, <b>Turn in Lab 28:</b> Visiting an Observatory. To receive credit for this lab, you must turn in the completed and signed page from Lab 28 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 <a href="#">Fernbank Science Center</a> , or <a href="#">Hard Labor Creek Observatory</a> .

Lab Instructor's Name: Bokyoung Kim

Lab Instructor's Email: bkim@astro.gsu.edu

Lab Instructor's Webpage: http://astro.gsu.edu/~bkim

Lab Instructor's Office: Langdale 953

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](mailto:wilson@astro.gsu.edu)).