

# ASTR 1020L SYLLABUS

Course title: Laboratory for Stellar and Galactic Astronomy

Catalog Number: ASTR 1020L

Class hours: 2

Credit hours: 2

**Instructor** Dr. Charles W. Johnson

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**Class web page** <http://faculty.sga.edu/cjohnson/Classes/1020astr/astr1020.html>

**Video Podcast** [itpc://podcasting.gcsu.edu/4dcgi/podcasting/southga/channels22741/27458.xml](http://itpc://podcasting.gcsu.edu/4dcgi/podcasting/southga/channels22741/27458.xml)

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-8:59 AM	PHYS 1111/2211		PHYS 1111/2211		
9:00-9:59 AM	8:00-9:15	Office Hour	8:00-9:15	Office Hour	
10:00-10:59 AM	Office Hour	Office Hour	Office Hour	Office Hour	
11:00 -11:59 AM					
12:00-12:59 PM	PHYS 1111 Lab				
1:00-1:59 PM	12:30-2:20 PM		Office Hour	Office Hour	
2:00-2:59 PM		ASTR 1020 Lab 2:30-4:20	Office Hour	Office Hour	
3:00-3:59 PM	PHYS 2211 Lab				
4:00-4:59 PM	2:30-4:20 PM				
5:00-5:59 PM					
6:00-6:59 PM		ASTR 1020 6:00-8:30			
7:00-7:59 PM					
8:00-8:59 PM					

**NON-STUDENT POLICY:** It is campus policy that children and visitors may not be present in classrooms when classes are in session or laboratories at any time.

## Course Description

ASTR 1020L: Laboratory for Stellar and Galactic Astronomy

A laboratory course to augment and support ASTR 1020. 0 - 2 - 1. Corequisite:

ASTR 1020. Stellar and Galactic Astronomy.

## Course objectives

The lab activities will allow you the student to understand better the measurement process and the process scientists use to form conclusions. For example you will learn the importance of repeated measurements, the meaning of averages, and the errors associated with the measurement process. In this way you will learn that science is not exact and that all measurements have an associated uncertainty. You will then have to form conclusions based on imperfect and incomplete data, just like scientists do.

While taking this class:

- Graduates will demonstrate the ability to understand mathematical information and perform mathematical manipulations at the level necessary to carry out common business transactions.

## Activities, evaluation, and make-up policy

The student is expected to participate in all labs. Failure to show up for a lab will result in a zero for that lab. There will be **no lab make-ups** so make sure to come to lab. I will drop the lowest lab grade.

The lab grades will be based on:

Lab Reports	100 %
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The letter grade assigned to each student will be based on the following:

Course Grade	Letter Grade
90 or above	A
80-89	B
70-79	C
60-69	D
Less than 60	F

## Lab Reports

Your lab report should have the following layout:

- 1) YOUR NAME AND THE NAMES OF YOUR PARTNERS.
- 2) INTRODUCTION—a statement of the purpose of the experiment (one page long).
- 3) DATA—use tables like the ones from the lab manual.
- 4) SAMPLE COMPUTATIONS—show all work so if a mistake was made I can help you find it.
- 5) GRAPHS—will be done on the computer.
- 6) CONCLUSIONS—a few well-chosen statements about conclusions warranted by the data, and how these compare with theory. Comparisons should be numerical, in terms of percent error whenever possible and a discussion of possible sources of error are appropriate (half a page).
- 7) ANSWERS TO QUESTIONS—if any are assigned

You must turn in your finished lab by the Wednesday after lab.

LABORATORY SAFETY POLICY:

1. Never play in the lab.
2. Never eat, drink or smoke in the laboratory.
3. Avoid putting objects found in the laboratory into your mouth.
4. Do not perform unauthorized experiments.
5. Know location of safety equipment and learn how to use it properly.
6. Always make sure safety goggles are worn when performing experiments requiring them.
7. Avoid setting things on fire and keep your hair under control.
8. Keep sinks clean. Do not put solid materials into them. Waste baskets are for solids, sinks for liquids.
9. Always flush flammable liquids, acids, and alkalis down the sink with plenty of running water.
10. If you are injured, notify your instructor and or lab assistant immediately.
11. Make sure all gas, water and electrical appliances are cut off at your lab station when you finish your work.
12. Prevent accidents, use common sense.

HARDSHIP WITHDRAWAL: A hardship W may only be sought after midterm in the case of a non-academic hardship such as severe, extended illness. The procedure for seeking a Hardship W is located on page 58 of the college catalog.

### **Special Needs Statement**

Students requiring classroom accommodations or modifications because of a documented disability should discuss this need with the instructor at the beginning of the semester. Students who have not presented validation for learning disabilities from the Regents' Center for Learning Disability (University System of Georgia) should complete all necessary paperwork and submit this to Mr. Wes Brown, Vice President for Student Success, Richey Hall, Room 161. The telephone number is (912)-260-4312. Students who have not presented validation for physical disabilities should register with the Office of the Vice President for Student Success.