ASTR 1010L & 1020L
INTRODUCTION TO ASTRONOMY LAB
Fall 2020

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To Be Determined

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Web Page: www.physast.uga.edu/~loris from there, follow the link to ASTR1010L & 1020L. IT IS IMPERATIVE THAT YOU MONITOR THIS WEB PAGE AT LEAST ON A WEEKLY BASIS. Important announcements for the course will be posted there throughout the semester.

Class: Tuesday 8:00 – 10:45 PM – Room 202 and 327, Physics Bldg.
Office Hours – Dr. Magnani: Monday 3:30 – 5:00 PM or by appointment

COURSE OBJECTIVES

The purpose of this course is to introduce you to the night sky and to small telescopes for making simple astronomical observations. These courses are de-coupled from the ASTR 1010 and ASTR 1020 lecture courses in the sense that (1) they don’t have to be taken the same semester as the corresponding lecture course and (2) they don’t necessarily cover the subject matter of the lecture course. The reason for not covering the subject matter of the corresponding lecture course is that it is too difficult to observe most of the non-stellar objects discussed in ASTR 1020 using our small telescopes at the not-very-dark-sky sites we use. In the case of ASTR 1010, there are too few solar system objects that are visible from our observing site during any given semester.
The basic aim of the course is to get the student to complete 10 lab assignments, broken up into 7 indoor labs involving written handouts and exercises, and 3 outdoor labs which involve making observations of the night sky with the naked eye and with a telescope. This will give the students an introduction to the night sky, to small telescopes, and to online astronomical databases. Because we are at the mercy of the weather (you cannot make visual telescopic observations of the night sky if it’s cloudy or raining), the number of outdoor/indoor labs is subject to change if we have very bad conditions during the semester (in which case we will have to do more indoor labs). Regardless, students must complete 10 labs over the course of the semester.

**METHODOLOGY**

The objectives of the course will be achieved by having the students complete 10 astronomical lab exercises, 3 of which involve either visual or telescopic observations of the night sky. There will also be a written lab final exam and 2 in-class quizzes.

The three observing labs are chosen from the following list:

1) Learning the constellations (includes a light pollution assignment). The student will have ample opportunity to learn the Fall night sky and, for a portion of their grade on this lab, the student will have to identify, to the TAs’ satisfaction, several constellations and stars with the naked eye.

2) Learning to use the telescopes (some of this actually takes place indoors), and finding at least two double stars with telescopes.

3) Sketches of lunar craters with the telescope to determine the height of lunar mountains along the crater rim.

4) Sketches or images of at least 3 “deep sky” objects.

These observing labs are done outside as are many of the tutorial sessions for learning the night sky. It will get very cold during the latter parts of the semester – so DRESS WARMLY and be prepared to spend a good deal of time outside in the cold weather. Because of the COVID-19 pandemic, masks must be worn while outside and all social distancing conventions must be followed. Failure to follow the TAs’ directions will be considered disruptive to the class and the student(s) will be asked to leave and will receive a 0 for the assignment in question.

In addition to the observing labs you will complete 7 written (indoor) labs during the course of the semester. As noted above, more written labs may be assigned if the weather does not allow us to go outside regularly.

To do the written labs, YOU WILL NEED TO BRING A LAPTOP TO CLASS THAT CAN WIRELESSLY CONNECT TO THE INTERNET. A write-up describing each lab will be on the web page.

YOU WILL NEED TWO APPLICATIONS FOR USE IN THIS CLASS:
1) Star Chart smartphone app. This is available for Apple and Android phones. [Link]
2) Siril image reduction software. Available for Mac, Windows, & Linux. [Link]

Please come to the first day of lab activities with these downloaded.

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**GRADING**

Each lab report is 6% of your final grade. Thus, 10 labs contribute a total of 60% to your final grade. The 2 in-class quizzes will each contribute 10% to your final grade (thus, they will together contribute 20%). The lab-final exam will contribute 20% to your final grade. You will have two opportunities to take the lab final online during the last two weeks of class. You only take the lab final once, but it can be on any one of the last two Tuesdays of the semester from 8:00 PM – 8:30 PM. Since the lab finals are scheduled after the Thanksgiving Break, they will be held online. There will be no class meetings after the Thanksgiving Break.

From the lab reports, the quizzes, and the lab final, your total score on a scale of 100 will be computed. That numerical grade will be turned into a letter grade using the following key:

- A is for a score of 90.00 or above
- A- is for the range 87.00 – 89.99
- B+ is for 84.00 – 86.99
- B is for 80.00 – 83.99
- B- is for 77.00 – 79.99
- C+ is for 74.00 – 76.99
- C is for 70.00 – 73.99
- C- is for 60.00 – 69.99
- D is for 50.00 – 59.99
- F is for any average below 50.00

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**STUDENT RESPONSIBILITIES**

Please make a reasonable attempt to arrive on time. If you must leave earlier than the scheduled end of class, please try to use the upper exits at the top of the lecture hall when we are in room 202. Class disruptions or distracting behavior will not be tolerated.

Ask for clarification on anything you find unclear, ambiguous, or unspecified in this syllabus. This includes both course policies and astronomical topics.

Know the rules concerning withdrawals and incompletes, published in the UGA Undergraduate Bulletin. Note that we will NOT withdraw you from the course for excessive absences.

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**COVID-19 GUIDELINES**

In light of the COVID-19 pandemic, students will have to follow the University guidelines while in rooms 202 and 327 and while they are outside for the outdoor portions of the lab. These guidelines include the wearing of masks and respecting social
distancing conventions. In rooms 202 and 327, seats that will allow for social distancing are clearly marked and students will sit only in those seats. Only 50 students are allowed in room 202 and the remainder of the students will be in room 327. The lecture portions of the classes will be recorded and available for online viewing.

For the outdoor labs, the students may be asked to wipe down the telescopes before using them using equipment provided by the department. Further COVID-19 guidelines are as follows:

**Coronavirus Information for Students**

**Face Coverings:**

Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at https://drc.uga.edu/.

**DawgCheck:**

Please perform a quick symptom check each weekday on DawgCheck—on the UGA app or website—whether you feel sick or not. It will help health providers monitor the health situation on campus: https://dawgcheck.uga.edu/

**What do I do if I have symptoms?**

Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see https://www.uhs.uga.edu/info/emergencies.

**What do I do if I am notified that I have been exposed?**

Students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 14 days consistent with Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at sco@uga.edu, to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.
How do I get a test?

Students who are demonstrating symptoms of COVID-19 should call the University Health Center. UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162.

UGA will also be recruiting asymptomatic students to participate in surveillance tests. Students living in residence halls, Greek housing and off-campus apartment complexes are encouraged to participate.

What do I do if I test positive?

Any student with a positive COVID-19 test is **required** to report the test in DawgCheck and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.

**ACADEMIC HONESTY**

All students are responsible for knowing, understanding, and abiding by the academic honesty policy of the University of Georgia, which can be found online at [http://honesty.uga.edu](http://honesty.uga.edu). If you have any questions about this policy and how it pertains to your work in this course, please ask me for clarification.

**TENTATIVE SCHEDULE**

This schedule is tentative because it is subject to the weather conditions on the given lab night.

August 25 – Introduction, lecture on the celestial sphere

September 1 – Lecture on telescopes; Learning to use telescopes

September 8 – Exercise on the celestial sphere – Learning the night sky

September 15 – Learning the night sky -- observational session or indoor exercise

September 22 - **Quiz on the celestial sphere** – Learning the night sky

September 29 – Learning the night sky – observational session or indoor exercise

October 6 – Observational session or indoor exercise

October 13 – Observational session or indoor exercise

October 20 – Observational session or indoor exercise
October 27 – Observational session or indoor exercise

Withdrawal Deadline: Tuesday, October 27th, 2020

November 3 – Quiz on night sky - Observational session or indoor exercise

November 10 – Observational session or indoor exercise

November 24 – Observational session or indoor exercise

December 1 – 1st chance to take lab final

December 8 – 2nd chance to take lab final