ASTR 1120L & 2030L
INTRODUCTION TO ASTRONOMY LAB
Spring 2021

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Web Page: www.physast.uga.edu/~loris from there, follow the link to ASTR1120L & 2030L. 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.

Office Hours for Loris Magnani: Monday 3:30 PM – 5:00 PM or by appointment via Skype or Zoom

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

COURSE OBJECTIVES

The purpose of this course is to introduce the student to the night sky and to small telescopes for making simple astronomical observations. These courses are de-coupled from the ASTR 1010, ASTR 1020, ASTR 1110H, and ASTR 1120H 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 or ASTR 1120H using our small telescopes at the not-very-dark-sky site we use.

**METHODOLOGY**

The objectives of the course will be achieved by having the students complete 10 astronomical lab exercises, 8 of which are completed indoors, and 2 of which involve telescopic observations outside. This will give the students an introduction to the night sky and to simple astronomical observations. Some of the 8 indoor labs involve using online astronomical databases; an important research technique in modern astronomy. There will also be a written lab final exam and 2 in-class quizzes during the course of the semester.

The pool of possible observational labs for this semester are:

1) Take images of at least 5 deep sky objects using the 8- and 10-inch telescopes using CCD cameras (explained in class).
2) Take images of valleys and mountain ranges of the Moon using the CCD camera.
3) Identify the planet Mars in the night sky and note its motion with respect to the background stars over the course of several weeks.
4) Examine the motion of the Moon (visually) and of the Sun (using online data).

In addition to the observing labs you will complete 8 written (indoor) labs during the course of the semester. The 8 indoor labs will be chosen from the following:

1) Star Charts and the Celestial Sphere.
2) Using the SIMBAD database to determine physical information on a sample of celestial objects.
3) Using the Virtual Observatory database to study a selected area of the sky.
4) Kepler’s Laws.
5) Spectral Classification of Stars.
6) Stellarium software package.
7) Hubble’s Law
8) Rotation of Mercury
9) Stellar Parallax

To do the above labs,

YOU WILL NEED TO BRING A LAPTOP TO CLASS THAT CAN WIRELESSLY CONNECT TO THE INTERNET.

By the end of the semester, you will have turned in lab reports on 10 of the above labs (2 observational and 8 indoor) and learned to recognize some of the constellations of the Winter and Spring sky.

STRUCTURE OF THE CLASS

Given the issues raised by the ongoing COVID-19 pandemic, class will be given in hybrid mode. While there is plenty of space in room 202 for everyone in the class to follow social distancing conventions, some students may not wish to attend class in person. In light of that, the lecture portion of each class will be broadcast synchronously via Zoom. Thus, a Zoom invitation will be sent to everyone a few minutes before each class. While in-person attendance is not compulsory, it is encouraged.
GRADING

Each lab report is 6% of your final grade. Thus, the 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. As mentioned above, the lab-final will be given during the last two weeks of class. You will have two opportunities to take the lab final 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 Mondays of the semester from 8:00 PM – 8:45 PM. At the end of the semester, 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, and F is for any average below 50.00.

COVID-19 GUIDELINES

In light of the COVID-19 pandemic, students will have to follow the University guidelines while in room 202 and while they are outside for the outdoor portions of the course. These guidelines include the wearing of masks and respecting social distancing conventions. In room 202, seats that will allow for social distancing are clearly marked and students will sit only in those seats.

For the outdoor labs, the students may be asked to wipe down the telescopes before using them using equipment provided by the department. Masks are to be used and social distancing
conventions must be followed.

**Coronavirus Information for Students**

**Face Coverings:**

As a reminder, 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. 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/](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/](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](https://www.uhs.uga.edu/info/emergencies).

**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.

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

Revised Guidelines for COVID-19 Quarantine Period

Effective Jan. 4, 2021, students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for **10 days** (consistent with updated Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines). Those quarantining for 10 days must have been symptom-free throughout the monitoring period. 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.

We strongly encourage students to voluntarily take a COVID-19 test within 48 hours of the end of the 10-day quarantine period (test to be administered between days 8 and 10). Students may obtain these tests at Legion Field (https://clia.vetview.vet.uga.edu/) or at the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in the University Health Center without an appointment. For emergencies and after-hours care, see https://www.uhs.uga.edu/info/emergencies

If the test is negative, the individual may return to campus, but MUST continue to closely monitor for any new COVID-19 symptoms through 14 days. DawgCheck is the best method for monitoring these symptoms. If new symptoms occur, the individual must not come to campus and must seek further testing/evaluation.

If the test is positive at the end of the 10-day period, the individual must begin a 10-day isolation period from the date of the test.
How do I participate in surveillance testing if I have NO symptoms?

We strongly encourage you to take advantage of the expanded surveillance testing that is being offered from January 4 – 22: up to 1,500 free tests per day at Legion Field and pop-up locations. Testing at Legion Field can be scheduled at https://clia.vetview.vet.uga.edu/. Walk-up appointments can usually be accommodated at Legion Field, and pop-up saliva testing does not require pre-registration. For planning purposes, precise sites and schedules for the pop-up clinics are published on the UHC’s website and its social media as they are secured: https://www.uhs.uga.edu/healthtopics/covid-surveillance-testing.

STUDENT RESPONSIBILITIES

If you are attending class in-person, please make a reasonable attempt to arrive on time. If you must leave earlier than the scheduled end of class, please do so quickly and quietly. 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 I will NOT withdraw you from the course for excessive absences.

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
If you have any questions about this policy and how it pertains to your work in this course, please ask me for clarification.

UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at www.uga.edu/ovpi. Every course syllabus should include the instructor's expectations related to academic honesty.

**Mental Health and Wellness Resources**

- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit https://sco.uga.edu. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking mental health services (https://www.uhs.uga.edu/bewelluga/bewelluga) or crisis support (https://www.uhs.uga.edu/info/emergencies).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (https://www.uhs.uga.edu/bewelluga/bewelluga) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.

If you have any questions or concerns about this syllabus, please contact me.
TENTATIVE SCHEDULE

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

January 25 – Introduction, lecture on the celestial sphere

February 1 – Lecture on telescopes; Learning to use telescopes

February 8 – Learning the night sky – observational session and/or indoor exercise

February 15 – Quiz on the celestial sphere – Learning the night sky – observational session and/or indoor exercise

February 22 - Learning the night sky – observational session and/or indoor exercise

March 1 – Learning the night sky – observational session and/or indoor exercise

March 8 – Observational session or indoor exercise

March 15 – Observational session or indoor exercise

March 22 – Observational session or indoor exercise

Withdrawal Deadline: Tuesday, March 23rd, 2021

March 29 – Observational session or indoor exercise

April 5 – Observational session or indoor exercise

April 12 – Observational session or indoor exercise

April 19 – Quiz on the night sky - Observational session or indoor exercise

April 26 - 1st chance to take lab final

May 3 – 2nd chance to take lab final