ASTR 1110L & 2030L
INTRODUCTION TO ASTRONOMY LAB

Fall 2020

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Web Page: www.physast.uga.edu/~loris from there, follow the link to ASTR1110L & 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 using telescopes. 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 telescope 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) Find the planet Uranus in the night sky and see if its motion with respect to the background stars can be detected.

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 Naval Observatory’s star chart database to create maps of small regions of the sky.
3) Using the SIMBAD database to determine physical information on a sample of celestial objects.
4) Using the Virtual Observatory database to study a selected area of the sky.
5) Kepler’s Laws.
6) Spectral Classification of Stars.
7) Stellarium software package.
8) Hubble’s Law
9) Rotation of Mercury
10) 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 finished the outdoor lab on recognizing constellations.

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 lab. 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. 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.

**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.

**STUDENT RESPONSIBILITIES**

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](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](http://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](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](https://www.uhs.uga.edu/bewelluga/bewelluga)) or crisis support ([https://www.uhs.uga.edu/info/emergencies](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](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.

August 24 – Introduction, lecture on the celestial sphere
August 31 – Lecture on telescopes; Learning to use telescopes
September 7 – Labor Day, no class
September 14 – Learning the night sky -- observational session or indoor exercise
September 21 - Learning the night sky -- observational session or indoor exercise
September 28 – **Quiz on the celestial sphere** - Learning the night sky
October 5 – Observational session or indoor exercise
October 12 – Observational session or indoor exercise
October 19 – Observational session or indoor exercise
October 26 – Observational session or indoor exercise

**Withdrawal Deadline: Tuesday, October 27th, 2020**

November 2 – Observational session or indoor exercise
November 9 – Observational session or indoor exercise
November 16 – **QUIZ on the night sky** - Observational session or indoor exercise
November 23 - Observational session or indoor exercise
November 30 – **1st chance to take lab final**
December 7 – **2nd chance to take lab final**