

SYLLABUS FOR ASTRONOMY 103L

Introductory Astronomy Laboratory
Randolph College, Summer 2020

PROFESSOR:

Katrin Schenk

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OVERVIEW:

This course is a one-summer-session, 1-credit laboratory course to accompany topics studied in astronomy 103. No previous laboratory experience is needed. Although we will have some observational component to the lab **THIS IS NOT AN OBSERVATIONAL LAB** but rather a lab meant to familiarize you with certain techniques and measurements in astronomy. This course, taken with Astronomy 103 Lecture, satisfies the II. D. Distribution General Education Requirement.

COURSE GOALS:

1. Spark students' curiosity and wonder about astronomical objects, astrophysical phenomena, and the physical world in general.
2. Develop students' understanding of the physical processes, astronomical objects and astronomical phenomena studied by astronomers.
3. Familiarize students with modern astronomical research methods and some of the most ground breaking recent astronomy research results.
4. Develop students' skills in making conclusions using logical, evidence based reasoning.
5. Develop students' knowledge of how scientists acquire, organize and apply knowledge about nature based on experiments and observations.

COURSE MATERIALS:

Online course information system: We will use Randolph College's Moodle system, <https://moodle.randolphcollege.edu/>, to post all materials for this course. You will be expected to check Moodle regularly for announcements and course materials.

OFFICE HOURS AND ONLINE LAB SESSIONS:

Office hours:

Tuesdays 2:00-3:00 pm ET,

Fridays 3:00-4:00 pm ET (and by appointment)

Professor Schenk's Contact Info:

Email: kschenk@randolphcollege.edu

Office phone: 434-947-8489

Cell phone: 415-425-0775

(texting is good! Don't expect a quick reply if you text or call after 9pm ET.)

LABS AND SCHEDULE:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
25 May	26 May Class Starts	29 May	30 May Lab 01 Mathematics Of the Cosmos	31 May	01 June	02 June Lab 02 Pre due by Midnight
03 June Lab 02 Scales of the Cosmos Lab 01 (Informal) due by Midnight	04 June	05 June	06 June Lab 03 Moon Project Lab 02 (Informal) due by Midnight	07 June	08 June	09 June Lab 04 Pre due by Midnight
10 June Lab 04 Motion	11 June	12 June Lab 05 Pre due by Midnight	13 June Lab 05 Telescopes Lab 04 (Informal) due by Midnight	14 June	15 June	16 June Lab 06 Pre due by Midnight
17 June Lab 06 Light and Spectroscopy Lab 05 (Formal Written) due by Midnight	18 June	19 June Lab 07 Pre due by Midnight	20 June Lab 07 Jupiter's Moons Lab 06 (Informal) due by Midnight	21 June	22 June	23 June Lab 08 Pre due by Midnight
24 June Lab 08 HR Diagram Lab 07 (Formal Written) Due by Midnight	25 June	26 June Lab 09 Pre due by Midnight	27 June Lab 09 Extra-Solar Planets Lab 08 (Informal) due by Midnight	28 June	29 June Lab 09 (Formal Written) Due by Midnight	30 June
01 July Lab 03 (Formal) due by Midnight	02 July	04 July	05 July			

LABORATORY REPORTS:

Lab reports will consist of 5 informal lab assignments, 3 written lab reports. All labs are due the day of the next lab class at midnight. This gives you 3 or 4 days to complete each assignment and will hopefully keep you (and me) from getting too far behind. The due dates are on the lab calendar above and on Moodle. Formal lab reports will be written up in Word (or equivalent word processing program) and submitted via Moodle. These reports do not need to be extensive, but should be all-inclusive and concise. Write up details will be given on Moodle before your first written report is due.

Your informal lab reports will consist of a quiz with a series of questions about the lab on Moodle. You may refer to your lab manual or any other material you need while taking the quiz. As with the pre-labs, you may take the quiz as many times as you would like before the deadline, and I will take the highest score. Some of the questions may be open-ended or short answer, so it is advantageous for you to start the assignment early giving me

time to grade the assignment and give you feedback at least once before the lab is due.

FORUMS:

I hope that you will make use of the office hours and/or lab sessions on Zoom, but I know that not all of you will due to scheduling, etc. Because of that, I strongly encourage all of you to make use of the forums that I will set up for each of the lab assignments. You may ask and answer questions about the lab. I will also answer questions. If you have personal questions about assignments (late assignments, missing lab kit items, etc.), please email me, but if you have questions that others might have, please post them to the forum. I know there is a strong reticence to do this for fear of seeming stupid, but I guarantee you that at least one other person has the same question. **THEIR ARE NO STUPID QUESTIONS!!!** Posting on the forums will be considered for extra credit if you are close the border between one grade and another. I encourage you to start by introducing yourself.

HONOR CODE:

Please note that all lab write-ups in this class are pledged work under the Randolph College Honor Code. You can feel free to study and do lab activities with other students but your lab write-ups should be your work alone. If you have any questions about how the honor code applies in this class I will be happy to discuss it with you.

GRADING:

You must complete and turn in all labs. You have the option of attending Zoom lab sections and office hours, but none of them are required. If something happens that makes it impossible for you to complete the labs on time, please email me so we can discuss what can be done.

Each lab will be on the web ahead of time, so you should have ample time to read, complete the pre-lab, do the experiment, and complete the lab assignment or report. Late labs will be penalized ten percent per day up to 5 days after which you will automatically get half off your score.

Informal Labs 30%

Formal Written Reports (5 count 10%) 50%

Pre-Lab Assignments 20%

Students with a disability requiring special

consideration: Students with disabilities needing accommodations in summer online classes at Randolph College may send any requests for accommodations and accompanying documentation to accessibility@randolphcollege.edu.

Students enrolled at other colleges or universities may submit current letters of accommodation from their home school.

Students who are not currently receiving accommodations and would like to inquire about receiving them in summer online classes at Randolph College can send any pertinent documentation or inquiries to the Coordinator of Disability Services at the email address listed above.