

2013

119-01-02-03-04 Our Universe- The Sky Lab

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**OUR UNIVERSE -THE SKY LAB - PHYS 119 - 01, 02, 03, & 04
TUESDAY & THURSDAY - FALL TERM 2013**

PHYS 119 is a one (1) credit hour lab course. PHYS 118 lecture is a separate course with a separate grade. The topics covered in lab sometimes complement the lecture, but some topics are independent material.

Mr. James Turpin – 204 Lindner – 745 3009 - Email: turpin@xavier.edu
Office Hours: Wednesday 5:00 – 6:00, Thursday 5:00 – 6:00, or by appointment.

Dr. Flesch flescht@xavier.edu Office Hours: by appointment.

Goals

This course will cover the basics of analyzing light, an understanding of several types of deep space objects, stellar classification, an understanding and appreciation of distances in space and how they are measured and some basic concepts on how we have come to understand the nature of deep space objects.

Missed Lab

Only one missed lab can be made up. The missed Lab has a time limit of 1 week. The makeup times are 9:00 am to 12:00 noon, Monday through Friday, and arranged by email. Any exceptions will require a note doctor, hospital, etc.

Grading

There will be 11-12 labs given during the semester. Each lab will be graded on a 10 point scale. The adjusted total lab score will carry the weight of 67% of the grade. There will be a cumulative final exam (33% of the final grade).

Labs:

Most of the labs will be accomplished during the regular class period and turned in at the end of the period. There will possibly some take home labs which the student is responsible completing on their own during a specified time period. All answers should be in complete sentence form. Handwriting must be readable. You will be responsible for much of the material covered in the lecture part of the labs, so it is advised that you take notes.

Lab Exam:

You are expected to understand the concepts behind each lab, as well as the procedures used. You must also understand any graphs used in lab. Any math necessary on the final will be simple enough to accomplish without a calculator. The exam will be multiple choice and closed book/notes. **Make sure you understand the concepts of the labs before leaving at the end of each evening. Notes taken during the introduction of each lab are a good review of each lab, but exam questions can also come from procedures, concepts, and ideas learned while doing the lab.**

Communication:

The instructor uses the campus email system to communicate with the class on a regular basis. It is expected that the students in the class check their email at least 24 hours before each class.

Final Grade:

The final grade will be determined by the following percentages:

93 and above – A	87 and above – B+	77 and above – C +	67 and above – D+
90 and above – A-	83 and above – B	73 and above – C	63 and above – D
	80 and above – B -	70 and above – C-	60 and above – D-

IMPORTANT

The instructor reserves the right to change aspects of this syllabus given reasonable notice to the students. All work is expected to be your own (**No plagiarism!**) and violation of this tenet will result in a failing grade for the course.

Xavier University Observatory Center (XUOC) Labs: Moon Lab (and possibly a Saturn Lab)

The Xavier University Observatory Center is located on campus at 205 Lindner Hall. If possible, a Moon Lab observation might be done in lieu of one of the other labs. Since clear nights are not predicable, the schedule for the possible observation cannot given in advance.

Mr. Turpin's Tuesday Schedule PHYS 119 - 01

August	27	.....No Lab
September	3	..... Angular Distances Lab & Angular Distances Home Parallax
	10	..... Star Charts
	17	..... Annual Motion of Sun
October	24	..... Distance to Moon by Parallax
	1	..... Mercury's Orbit
	8	..... No Lab (Fall Holiday)
	15	..... Light and Distance
	22	..... Spectral Tubes
November	29	..... Exoplanet
	5	..... H-R Diagram
	12	..... Hubble's Law
	19	..... COC 7:00 pm to 8:30 pm
	26	..... No Lab (Thanksgiving Break)
December	3	..... Makeup Lab – Spectral Classification
	10	..... Lab Final

Dr. Flesch's Tuesday Schedule PHYS 119 - 02

August	27	.....No Lab
September	3	..... Angular Distances Lab & Angular Distances Home Parallax
	10	..... Star Charts
	17	..... Annual Motion of Sun
October	24	..... Distance to Moon by Parallax
	1	..... Mercury's Orbit
	8	..... No Lab (Fall Holiday)
	15	..... Spectral Tubes
	22	..... Light and Distance
November	29	..... Exoplanet
	5	..... H-R Diagram
	12	..... Hubble's Law
	19	..... COC 7:00 pm to 8:30 pm
	26	..... No Lab (Thanksgiving Break)
December	3	..... Makeup Lab – Spectral Classification
	10	..... Lab Final

Mr. Turpin's Thursday Schedule PHYS 119 - 03

August	29 ...	No Lab
September	5	Angular Distances Lab & Angular Distances Home
	12	Star Charts
	19	Annual Motion of Sun
	26	Moon Distance by Parallax
October	3	Mercury's Orbit
	10	No Lab (Fall Holiday)
	17	Light and Distance
	24	Spectral Tubes
	31	Exoplanet
November	7	H-R Diagram
	14	Hubble's Law
	21	COC 7:00 pm to 8:30 pm Makeup Lab
	28	No Lab (Thanksgiving Break)
December	5	Makeup Lab – Spectral Classification
	12	Lab Final

Dr. Flesch's Thursday Schedule PHYS 119 - 04

August	29 ...	No Lab
September	5	Angular Distances Lab & Angular Distances Home
	12	Star Charts
	19	Annual Motion of Sun
	26	Moon Distance by Parallax
October	3	Mercury's Orbit
	10	No Lab (Fall Holiday)
	17	Spectral Tubes
	24	Light and Distance
	31	Exoplanet
November	7	H-R Diagram
	14	Hubble's Law
	21	COC 7:00 pm to 8:30 pm Makeup Lab
	28	No Lab (Thanksgiving Break)
December	5	Makeup Lab – Spectral Classification
	12	Lab Final