

# ***PHYS 121 Light & Visual Phenomena Lab (Spring 2021)***

The Combination *PHYS 101/121* has no prerequisites.

You can use this combination as a lab science or science perspective. Pick One.

**Instructor:** Michael J. Ruiz, Ph.D.; Lab meets in Rhoades/Robinson Hall, Room RRO 114.

Lab Assignments: Online.

**NOTE: The free browser Google Chrome is needed for all apps to work properly.**

**L1** - T (9:55-11:10), **L2** - W (9:30-10:45), **L3** - W (2:00-3:15), **L4** - R (9:55-11:10)

**Office Hours:** T (11:15-11:45), W (10:45-11:45), W (1:00-2:00), R (11:15-11:45) until April 27.  
Look for me in either our lab RRO-114 or in my office RRO-124D. ruiz@unca.edu

**Lab Schedule:** There are 10 labs posted online. Don't hesitate to ask for help in lab.

- Monday: Begins the lab week. Try to finish a few questions before coming to lab.
- After the lab period, complete any remaining questions by that Friday.
- Friday 11:59 pm is the deadline to complete the assigned lab for that week.
- You are on your own if you work beyond Thursday noon. Your Internet could go down.
- However, see p. 2 for an opportunity to do make-up lab work.

**Exam Schedule:** There are two Lab Exams, one is a Midterm and the other is the Final.

- Exam 1 - Midterm Exam covers Labs 1, 2, 3, 4, and 5. Week of March 1, 2021.
- Exam 2 - Final Exam covers Labs 6, 7, 8, 9, and 10. Final Exam Week.

**Attendance:** You receive attendance points for working on lab assignments during the lab period. Attendance and consistent lab work are important for borderline cases.

**Holidays, Special Events, Cancellation of Classes Due to Weather.** Since our labs are online, the schedule continues as posted. For bad weather, do the lab as a take-home lab.

**Official University Travel:** Let me know if you need to miss lab due to official university travel at least one week in advance. Since the lab work is online, you can finish the lab ahead of time.

**Time:** Total time for a science lab ranges among the science departments from 2 hours to 4 hours. Allocate for yourself 1.5 hours in addition to your 75-minute lab period for some work on your own. You might not need all of it. See me if you are taking over 3 hours to complete a lab.

**Grading:** A (740-800), B(660-739), C(580-659), D(500-579), F(0-499).

250 Points for Lab Assignments (25 assignments per lab, 10 labs:  $10 \times 25 = 250$ )

100 Threshold (10 per Lab if 18 completed). **But do all 25 for full credit to get 350.**

50 L01-L10 Attendance (5 for on time, 3 for late, 0 if more than half the class is missed)

200 Exam 1

200 Exam 2

800 Total

Borderline cases (within reason) are determined by me based on your lab attendance grade and completing labs.

Goals of lab include making measurements, analyzing data, and drawing conclusions. You will learn about the important observational aspects of science. You will also see the power of physics in a variety of interdisciplinary applications such as color, vision, and photography.

<b>Week Beginning</b>	<b>Lab Title</b>	<b>Online Due Date</b>
January 11, 2021	L01. Powers of Ten	Friday, January 15, 2021
January 18, 2021	L02. The EM Spectrum	Friday, January 22, 2021
January 25, 2021	L03. Spectroscopy	Friday, January 29, 2021
February 1, 2021	L04. Color Addition	Friday, February 5, 2021
February 8, 2021	L05. Color Subtraction	Friday, February 12, 2021
February 15, 2021	<i>PHYS 101 Exam 1 aka E1 (A-G)</i>	No Lab Due
February 22, 2021	L06. Color Wheels	Friday, February 26, 2021
March 1, 2021	<i>First Lab Exam aka LE1</i>	Covers 1, 2, 3, 4, and 5
March 8, 2021	Spring Break	No Lab Due
March 15, 2021	L07. Camera Lenses	Friday, March 19, 2021
March 22, 2021	<i>PHYS 101 Exam 2 aka E2 (H-N)</i>	No Lab Due
March 29, 2021	L08. Eye Lenses	Friday, April 2, 2021
April 5, 2021	L09. Color Perception	Friday, April 9, 2021
April 12, 2021	<i>PHYS 101 Exam 3 aka E3 (O-U)</i>	No Lab Due
April 19, 2021	L10. Optical Illusions TUE Lab Meets April 27 Instead	April 28, 2021
Final Exam Week	<i>Lab Exam 2</i>	Covers 6, 7, 8, 9, and 10

### **Lab Make-Up and Final Exam Schedule**

**Make-Up Lab.** To allow for emergencies, two short Grace Periods will be announced.

Second Lab Exam: (aka Exam 2) (covers labs 6,7,8,9,10)	Lab Section 1 - Tuesday, May 4, 2021	from 8:00 am to 9:30 am
	Lab Section 2 - Monday, May 3, 2021	from 8:00 am to 9:30 pm
	Lab Section 3 - Wednesday, May 5, 2021	from 11:30 am to 1:00 pm
	Lab Section 4 - Tuesday, May 4, 2021	from 9:30 am to 11:00 am

Website: <https://www.opus.unca.edu/light/>

Faster to just Google: **light unca** (We should be the first search result).

For adverse weather consult your email, the UNCA Home Page, or the radio.



## UNCA-WIDE Important Information

**Title IX and Sexual Misconduct.** [Note that the legal term “Responsible Employee” appearing below means “Mandatory Reporter.”] Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment, sexual exploitation, interpersonal violence, non-consensual touching, and sexual assault. UNC Asheville’s policy against sexual misconduct extends not only to employees of the university but to students as well. If you encounter unlawful sexual misconduct behavior or gender based discrimination, please talk to any University Responsible Employee (Mandatory Reporter). **All University employees (except Health and Counseling center employees and employed Campus Ministers are considered Responsible Employees (Mandatory Reporters) and are mandated to report incidents to the Title IX Office.**

The Title IX office consists of [Dr. Jill Moffitt](#), UNC Asheville’s Title IX Administrator, who can be reached at [\(828\)232-5658](tel:8282325658). Individuals may also report anonymously at <https://police.unca.edu/anonymous-report>. For more information regarding Title IX and resources concerning sexual misconduct and its prevention please visit <https://titleix.unca.edu/>.

**UNCA Chief of Police:** [Chief Eric Boyce](#).

**Accommodations and Academic Accessibility.** UNC Asheville values the diversity of our student body as a strength as a critical component of our dynamics community. Students with documented special needs may require accommodations due to facilities, course design, technology used, or other campus resources. Students who experience a barrier to full access to this class should let the professor know and/or make an appointment to at the [Office of Academic Accessibility](#) as soon as possible at the beginning of the semester. All information will remain confidential. For more specific information please contact the Office of Academic Accessibility at [\(828\)232-5050](tel:8282325050) or [academicaccess@unca.edu](mailto:academicaccess@unca.edu), visit them in the [OneStop Student Services Center](#) or at their website <https://oaa.unca.edu/>.

**Early Alerts.** Faculty at UNCA are encouraged to use the university's Early Alert system to communicate with students about their progress in courses. When a faculty member submits an early alert that expresses a concern, the student receives an email from OneStop and meets with the professor to discuss the alert, completing a form as part of the process. It is in the student's best interest to complete the EA process quickly, as students who do so are more likely to earn credit for the course. Failure to complete the EA process (including meeting with the professor and submitting the required form to OneStop) will result in a registration hold; the student won't be able to register for the next semester's classes until they have met with the faculty member and turned in the required form. Questions about the EA system can be directed to [Anne Marie Roberts](#) ([amrober1@unca.edu](mailto:amrober1@unca.edu)) in OneStop.

**Academic Dishonesty.** Note that any violations of academic dishonesty (cheating, signing someone else's quiz sheet, etc.) must be reported to the Provost's Office.