Introductory physics labs

Mechanics: PHY121, PHY121P, PHY113, PHY181

Experiments 1-5

E&M: PHY122, PHY122P, PHY142, PHY182

Experiments 6-10

Modern: PHY123, PHY183

Experiments 11-15

General Physics E&M: PHY114, PHY184

Experiments 6,8,9,12,13

All information is on

http://www.pas.rochester.edu/~physlabs/

Labs start Monday Feb 4th, 2019

- There are five labs in the course. All labs must be done to pass the course. All information is on <u>www.pas.rochester.edu/~physlabs/</u>
- There is a prelab that you need to do beforehand and hand in the the beginning of lab. These are graded and count as 5% of your course grade. Print the prelab and lab instructions and bring to the lab with you. There are two students per lab setup.
- The postlab analysis is done during the lab, they count as 5% of your course grade.
- Labs run on a two week cycle. With weeks A and B. Make sure that
 you attend lab during the correct week (e.g. Monday MA lab
 section is week A, and Monday MB lab section is week B).
- You must sign into the lab and give the TA your completed prelab.
 At the end of the lab, you hand the TA your postlabs

Spring 2019 - LABS START Mon. FEB 4th

WEEK LAB CYCLE

PHY 113/121/121P, 114, 123

	www.pas.rochester.edu/~	-physlabs	os LAB#		
DATE	WEEK	113/121(P)	, 114,	123	
2/4/19	A	1,	6,	11	
2/11/19	В	1,	6,	11	
2/18/19	A	2,	8,	12	
2/25/19	В	2,	8,	12	
3/4/19	A	3,	9,	13	
3/11/19	SPRING BREAK-	- NO LABS			
3/18/19	В	3,	9,	13	
3/25/19	A	4,	12,	14	
4/1/19	В	4,	12,	14	
4/8/19	A	5,	13,	15	
4/15/19	В	5,	13,	15	
PHY 113(F)	, 121(S), 181 (F,S)	_	B&L 2	67	
•	F), 122(F), 182 (F,S), 184 (B&L 2		
PHY 123(S)	, 183, (F,S) (114 Fall, last tw	o labs) –	B&L 1	65	

INTRODUCTORY PHYSICS

LABORATORIES SCHEDULE SPRING 2019 For TAs Professor Arie Bodek

S19 LABS BEGIN FEBRUARY 4TH

Week of:					Grading/Notes
Jan 16 - Feb 1					TA meeting / Practice labs (setups ready by 1/12)
Jan 16 (Wed)					Classes Begin
Feb 4					Labs Begin
Feb 1					Set up 12 setups for Lab 1, Lab 6, & Lab 11
	113/				
PHY Course:	-	114	123	WEEK	Grading/Notes
Feb 4	Lab 1	Lab 6	Lab 11	Week A	Labs Start
Feb 11	Lab 1	Lab 6	Lab 11	Week B	Feb 15, Grading Due Lab 1 Week A
Feb 18	Lab 2	Lab 8	Lab 12	Week A	Feb 22, Grading Due Lab 1 Week B
Feb 25	Lab 2	Lab 8	Lab 12	Week B	Mar 1, Grading Due Lab 2 Week A
Mar 4	Lab 3	Lab 9	Lab 13	Week A	Mar 8, Grading Due Lab 2 Week B
Mar 11	No Labs				Spring Break March 11-15 (Classes resume Mar 18)
Mar 18	Lab 3	Lab 9	Lab 13	Week B	Mar 22, Grading Due Lab 3 Week A
Mar 25	Lab 4	Lab 12	Lab 14	Week A	Mar 29, Grading Due Lab 3 Week B
Apr 1	Lab 4	Lab 12	Lab 14	Week B	Apr 5, Grading Due Lab 4 Week A
Apr 8	Lab 5	Lab 13	Lab 15	Week A	Apr 12, Grading Due Lab 4 Week B
Apr 15	Lab 5	Lab 13	Lab 15	Week B	Apr 19, Grading Due Lab 5 Week A
Apr 26					Apr 26, Grading Due Lab 5 Week B
Apr 23					Missing Lab Warning to Students/Instructors
May 1					May 1 - Last Day of Class, All Grading Due
May 6					Final Exams May 6 - 13

Each lab has 11 setups (for 20 students and one spare)

			PH	Y 113, 12	1/121P.	181 MEC	HANICS	LAB			
		Plea						& Latest Up	dates		
SPRING 2	2019					uary 4th, 20					B&L 267
Afternoon	2:00-4:40, Ev	e 4:50-7:30, N	ight 7:40-10	:20						Updated	16-Jan-19
	Mon Aft	Mon Eve	Mon Night	Tue Aft	Tue Eve	Tue Night	Wed Eve	Wed Night	Thu Aft	Thu Eve	Thu Night
Week A	MA	MEA	MNA	TA	TEA	TNA	WEA	WNA	RA	REA	RNA
CRN 121	36402	36478	36499	36426	36451	36600	36465	36595	36527	36574	36540
CRN 113	35845	35901	35927	35886	35877	36048	35890	36030	35974	35938	35995
CRN 121P	36785	36820	36847	36854	36818	36988	36863	36970	36891	36941	36919
Students	19	18	18	16	18	16	18	18	18	18	18
MAKEUPS	FULL	FULL	FULL	MAKEUPS	FULL	MAKEUPS	FULL	FULL	FULL	FULL	FULL
TA1	Elisha	Ke	Xue	Le	Elisha	Ke	Xue	Le	Ke	Xue	Elisha
TA2	Alaina	Swornima	Katelynn	Muhammed	Alaina	Tanamaya	Swornima	Katelynn	Muhammed	Le	Tanamaya
Grader	Elisha	Ke	Xue	Le	Elisha	Ke	Xue	Le	Ke	Le	Elisha
Week B	MB	MEB	MNB	TB	TEB	TNB	WEB	WNB	RB	REB	RNB
CRN 121	36434	36569	36443	36417	36583	36552	36516	36480	36538	36501	
CRN 113	36029	36012	35862	35859	35940	36003	35969	35916	35983	35952	
CRN 121P	36964	36935	36805	36792	36953	36922	36889	36836	36906	36872	
Students	19	18	18	18	18	13	17	13	18	18	
MAKEUPS	FULL	FULL	FULL	FULL	FULL	MAKEUPS	MAKEUPS	MAKEUPS	FULL	FULL	
TA2	Elisha	Ke	Xue	Le	Elisha	Ke	Xue	Le	Ke	Xue	
TA2	Alanina	Swornima	Katelynn	Muhammed	Alaina	Tanamaya	Swornima	Katelynn	Muhammed	Le	
Grader	Elisha	Ke	Xue	Le	Elisha	Ke	Xue	Le	Ke	Xue	
	Mon Aft	Mon Eve	Mon Night	Tue Aft	Tue Eve	Tue Night	Wed Eve	Wed Night	Thu Aft	Thu Eve	Thu Night
Head TA	Elisha Haber	2.5	92	ehaber@ur.ro	chester.edu		TI	Tanamaya Dah	iya (1.5)	tdahiya@u.roc	hester.edu
TA	Ke Wang	3	101	kwang41@ur.	rochester.edu	l	TI	Swornima Ghii	mire (2)	sghimire@u.roch	
TA	Le Hu	3	83	lhu9@ur.roch	ester.edu		TI	Katelynn Gebh	art (2)	kgebhart@u.rc	chester.edu
TA	Xue Dong	3	89	xdong18@ur.i	ochester.edu		TI	Muhammed Rat	ffay Nawaz (2)	mnawaz2@u.r	ochester.edu
Lab C	oordinator:	Lysa Wade Iwa	de3@ur.roche	ster.edu			TI	Alaina Attansio	(2)	aattanas@u.ro	chester.edu
								3			
Elisha	Ke	Le	Xue				Tanamaya	Swornima	Katelynn	Muhammed	Alaina
Haber	Wang	Hu	Dong				Dahiya	Ghimire	Gebhart	Raffay Nawaz	Attansio

B&L 268		PHY 11	4 GENERAL	PHYSICS II	LAB		
	Pleas	se Refer to www.pa	is.rochester.edu/pl	<u>ıyslabs/</u> for Lab I	nfo & Latest Up	dates	
Spring 2019 Afternoon 2:00-4:40), Eve 4:50-7:30, Nigh	nt 7:40-10:20				PHY114 Labs in roo LABS BEGIN FEBRU	
WEEK A:	MONDAY	MONDAY	TUESDAY	TUESDAY	WEDNESDAY	THURSDAY	THURSDAY
LAB SECTION	Afternoon - MA	Evening - MEA	Afternoon - TA			Afternoon - RA	Evening - REA
CRN 114	36232	36145	36186			36190	36210
STUDENTS	16	17	14			16	18
MAKEUPS	MAKEUPS	MAKEUPS	MAKEUPS			MAKEUPS	FULL
TA1	Zach	Zach	Dillon			Dillon	Zach
TA2	Dillon	Alicia	Madhavan			Zach	Madhavan
Grader	Dillon	Zach	Dillon			Zach	Zach
WEEK B:	MONDAY	MONDAY	TUESDAY	TUESDAY	WEDNESDAY	THURSDAY	THURSDAY
LAB SECTION	Afternoon - MB	Evening - MEB	Afternoon - TB	Evening - TEB	Night WNB		
CRN 114	36249	36177	36162	36255	36159		
STUDENTS	8	14	17	17	10		
MAKEUPS	MAKEUPS	MAKEUPS	MAKEUPS	MAKEUPS	MAKEUPS		
TA1	Zach	Zach	Dillon	Zach	Dillon		
TA2	Dillon	Alicia	Madhavan	Dillon	Alicia		
Grader	Zach	Zach	Dillon	Dillon	Dillon		
TA (3/wk)	Zachary Barfield -	zbarfiel@ur.roches	ter.edu	TI	Alicia Lau		
TA (3/wk)	Dillon Ramsey - dr	amsey2@ur.roches	ster.edu	TI	Madhavan Murali		
Lab Coordinator: L	ysa Wade - lwade3@u	ır.rochester.edu					
	.						

Zach Barfield

Alicia



rfield 73 Dillon Ramsey 74

Madhavan

SPRING 2019	PHY123/183	PHY123/183 Modern Physics Lab B&L 1								
Please Ref	er to www.pas.rochester.edu/p	hyslabs/ for Lab Info & I	Latest Up	dates						
LABS Begin Monday Febr	ruary 4th, 2019									
	MONDAY 4:50-7:30	TUESDAY 2:00-4:40	WED	THURSDAY 4:50-7:30						
WEEK A	NO LAB WEEK A	A week		A week						
SECTION DAY/TIME		TA		REA						
Section enrollment		18		17						
Available for makeups		FULL		MAKEUPS						
WEEK B	B week	NO LAB WEEK B		B week						
SECTION DAY/TIME	MEB			REB						
Section enrollment	14			17						
Available for makeups	MAKEUPS			MAKEUPS						
Lab Coordinator: Lysa Wa	nde (lwade3@ur.rochester.edu)			Sections						
TA	James Young	jyoung36@ur.rochester.edu		4						
Π	Tyler Mason	tmason7@u.rochester.edu		4						
0										
James Young	Tyler Mason									

Spring:

Mechanics labs in Spring semester (for PHY113, 121, 121P and 181) are held in room B&L 267.

EM & Modern labs in Spring semester (for PHY114, and 184) are held in room B&L 268

Modern Physics Labs in Spring semester (for PHY 123 and PHY183) are held in room **B&L 165**

- •Afternoon Labs are from 2:00PM to 4:40PM.
- •Evening Labs are from 4:50PM to 7:30PM.
- •Nighttime Labs are from 7:40PM to 10:20PM

If your schedule changes and you need to make a permanent switch to another lab section, please contact Lysa Wade: **B&L 252 - M, W, Th, F 9:30am-3pm, T 12-3pm** (Email: lwade3@ur.rochester.edu)

You should have signed up for a lab section when you registered for your physics course. The lab section which you signed up for should have had "Lab A" or "Lab B" included in the title. This is the lab week which you should attend.

You MUST attend the lab section for which you are registered. This is because each lab section can only accommodate 18 students (20 if the spare setup is operational)

If you know that you will miss a lab (illness, personal emergencies, etc.) you must make it up during the two week cycle period for that lab. please email the lab admin as soon as possible. In the email to the lab administrator you must state clearly your regular lab section, the lab section you are planning to attend and the reason. Except in exceptional circumstances, each student can be allowed to attend only one make-up lab. If your do not hear back, then show up in the section marked *MAKEUPS* on the list of lab sections on ~physlabs.

The lab administrator emails are: physlabs.mechanics@pas.rochester.edu for PHY113 (fall, Spring) and PHY121(spring) and PHY181 (fall, Spring) labs.

physlabs.em@pas.rochester.edu for PHY122/142/182 (fall) and PHY114 (spring) and PHY182 and PHY184 labs.

physlabs.modern@pas.rochester.edu for PHY123 and PHY183 Modern Physics Labs (spring).

Before you attend lab, you must download and print the lab manual, and complete the "prelab" section of the exercise. The prelab section is collected at the beginning of the lab.

You will need your completed prelab, a copy of the lab manual, a calculator, and a pen or pencil for each lab.

You are also allowed to have your course textbook at your lab bench if you need it, but anything else (backpacks, etc.) must be put along the sides of the room or the back wall. You may also use an Excel spreadsheet.

Because your completed lab write-up is due at the end of the laboratory session, it is vital that you have read over the manual before coming to lab. If you haven't read the manual beforehand, you will lose time, and may find yourself pressed for time at the end of the period.

The worksheets in the lab manual (which you will fill out as you complete the lab) are collected at the end of the lab session (postlab report).

Students work in pairs, but each student must prepare their own report. Partners can discuss the experiment and the interpretation of the data, however students are not permitted to copy each other's write-ups.

It there is an odd number of students in a section, one team will be three students.

Each Prelabs is graded from 0 to 2 (The 5 Prelabs typically count as 5% of the grade in the course)

Each Postlab report is graded from 0 to 20

(The 5 Postlab reports typically count as 5% of the grade in the course)