

PHYSLAB 300/500

Lab schedule-II

Note: The colored experiments need to be performed in a group of two people. All others are individual experiments.

Student Name/Date	10-11-2016	15-11-2016	17-11-2016	22-11-2016	24-11-2016	29-11-2016	01-12-2016	06-12-2016
Sheraz Zahid	Band structure and electrical conductivity in semiconductors (2.10)	Temperature oscillations in a metal (2.3)			Energy dispersive XRF (2.14)		Projectile motion (5.1)	
Ayesha Imam	Faraday's effect (2.6)				Band structure and electrical conductivity in semiconductors (2.10)			
Junaid Ahmed Khan	Measuring Muon lifetime (2.20)							
Bilal Ahmed	Superconducting quantum interference devices (SQUIDs)							
Hassan Ahmed Khan	Superconducting quantum interference devices (SQUIDs)							
Hassaan Khan	Projectile motion (5.1)	Sliding friction (5.2)	Colliding pucks on a carom board (5.3)			Spring pendulum (5.4)		
Sehrish Iqbal	Chaos and non-linear physics (2.5)				The magnetic pendulum (2.12)			
Usman Rasheed	Surface Plasmon resonance (2.15)				Band structure and electrical conductivity in semiconductors (2.10)			Introduction to lock in amplifier (2.2)

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Subhan Jamil	<u>Surface Plasmon resonance (2.15)</u>				Chaos and non-linear physics (2.5)			
Arslan Hashim	Design a new experiment on rolling friction							
Musa Raza	Mach-Zehnder interferometry and eraser of 'which-path' information (2.21)			Synthesis of high temperature superconductor using citrate pyrolysis and observing the Meissner effect+ low temperature conductivity (2.17+2.18)				
Hamza Ahmed	Design a new experiment to find oscillations of a variable mass oscillator							
Asad Hussain	Tracking Brownian motion through video microscopy (2.11), and, Differential dynamic microscopy							
Bilal Khalid	Design a new experiment to find oscillations of a variable mass oscillator							
Asif Nawaz	Gamma-ray spectroscopy (2.19)			Design a new experiment to determine half life				
Hafiyya Fayyaz	Design a new experiment on unsteady state conductivity (http://iopscience.iop.org/article/10.1088/0143-0807/37/5/055104#)							
Adil Ghaznavi	<u>Synthesis and Ferroelectric Properties of KNO3 Films</u>			Design a new experiment on peltier based temperature controller for phase transitions				
Usman Subhani	Synthesis of high temperature superconductor using citrate pyrolysis and observing the Meissner effect+ low temperature conductivity (2.17+2.18)				To be decided			
Waqar Ahmed	Synthesis of high temperature superconductor using citrate pyrolysis and observing the Meissner effect+ low temperature conductivity (2.17+2.18)				To be decided			