

GENERAL PHYSICS WITH CALCULUS II - PHY2049L**TERM 20232 – SPRING 2023, SESSION 3****Meeting on Fridays: January 27 – April 21, 2023****12:00 PM - 2:30PM****Building 57, Room 224****Required Lab Manual and Notebook:**

1. **Cengage Unlimited eBooks:** 1-semester access (4 months), ISBN: 9780357693339
2. **Blue flexible cover, 50-page lab notebook:** E-LIRPE-048-LGR-A available through book factory at <http://acct107430.shop.netsuite.com/s.nl/c.ACCT107430/it.A/id.6802/.f?sc=23&category=278>

LAB SCHEDULE	
FRIDAY	TITLE OF EXPERIMENT
January 27	<i>Introduction, Safety: General & Electrical</i> ; <i>Calculus Primer</i>
February 3	<i>Graphs and Equations; Graphing with Excel</i> Measuring Instruments and Basic Electricity*
February 10	<i>Virtual Lab: Charges and Fields</i> https://phet.colorado.edu/en/simulations/charges-and-fields Real Lab: Electric Fields
February 17	NO LAB, PROFESSIONAL DEVELOPMENT DAY
February 24	<i>Virtual Lab: Capacitor Lab...</i> https://phet.colorado.edu/en/simulations/capacitor-lab-basics Real lab: Measuring Capacitance
March 3	<i>Virtual Lab: Ohm's Law</i> https://phet.colorado.edu/en/simulations/ohms-law <i>Virtual Lab: Circuit Construction Kit [Series & Parallel Circuits]</i> https://phet.colorado.edu/en/simulations/circuit-construction-kit-dc-virtual-lab Real Lab: Resistances in Series and Parallel*
March 10	SPRING BREAK, NO LAB!
March 17	EXAM 1
March 24	<i>Virtual Lab: Circuit Construction Kit [Kirchoff's Law]</i> https://phet.colorado.edu/en/simulations/circuit-construction-kit-dc-virtual-lab Real Lab: Multiloop Circuits—Kirchoff's Rules*
March 31	<i>Virtual lab: Faraday's Law</i> https://phet.colorado.edu/en/simulations/faradays-law Real Lab: Magnetic Field of a Coil & Induction Voltage
April 7	Introduction to the Oscilloscope* & Phase Measurements and Resonance in AC Circuits*
April 14	<i>Virtual Lab: Bending Light</i> https://phet.colorado.edu/sims/html/bending-light/latest/bending-light_en.html Real Lab: Reflection and Refraction*
April 21	EXAM 2