



**AL IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY**  
**COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**

<b>Course Information</b>	
<b>Course Code, Number &amp; Name</b>	PHYS120 Physics II Lab <b>Total Credits: 1</b> (Theory Hours: 0, Lab Hours: 2)
<b>Prerequisite/s</b>	PHYS117 Physics I, PHYS119 Physics I Lab.

<b>Course Description</b>
Laboratory work related to the topics covered in PHYS118 Physics II.

<b>Textbook (Theory)</b>	
<b>Title</b>	Physics
<b>Author</b>	Halliday D. and Resnick R.
<b>Publisher</b>	John Wiley & sons

<b>Course Contents (Laboratory)</b>
<p><b>Introduction:</b> Fundamentals of Data Analysis and graphs student gain experience in the graphical presentation and interpretation of data.</p> <p><b>Experiment 1:</b> Determining the capacitance of a plate capacitor.</p> <p><b>Experiment 2:</b> Determining the dielectric constant of a dielectric by using plate capacitor.</p> <p><b>Experiment 3:</b> Parallel and Series Connection of Capacitors.</p> <p><b>Experiment 4:</b> Charging and discharging a Capacitor (The RC circuit).</p> <p><b>Experiment 5:</b> Measuring the Magnetic Field for a Straight Conductor and on Circular Conductor Loops.</p> <p><b>Experiment 6:</b> The Magnetic Field of an Air Coil.</p> <p><b>Experiment 7:</b> Electromagnetic Induction (Induction in a moving conductor loop).</p> <p><b>Experiment 8:</b> RL circuit.</p> <p><b>Experiment 9:</b> Alternating Current with Coil and Ohmic Resistors.</p> <p><b>Experiment 10:</b> Determining the Capacitive Reactance of a Capacitor in an AC Circuit.</p>

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**Academic Coordinator**

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**Official Stamp**