

**St. Aloysius' College (Auto.), Jabalpur**  
**Department of Physics**  
**Certificate Course on**  
**“Experimentation Through Virtual Lab ( ExpEyes)”**

**Credit: 2**

**Time Duration: 30 Hrs.**

**Course Outcome**

The students are expected to acquire the knowledge of the following:

The students are expected to acquire the knowledge of the following:

- ExpEye Kit and Interface
- Idea of Python
- Visualization of simple experiments

Paper		Maximum Marks	Minimum Marks	Total Marks
I	Theory	50	20	100
II	Practical	50	20	

**Unit I**

Introduction of Virtual Lab: ExpEyes Kit, Materials, Sources and connectors, Connecting sources with ExpEyes Kit.

**Unit II**

Introduction of Softwares : Ubuntu, ExpEyesJunior, Python , LxTerminal

**Unit III**

Interface of ExpEyes Junior : Experiments, Data Extraction , Saving files, Visualization, Limitations.

**Unit IV**

Working with Python : Importance of Python, Simple Programs, connectivity of Kit with Python.

**Unit V**

Experiments : Producing Sinusoidal Waves , Study of V-I characteristic curve of Diode , Study of LDR, Charging and discharging of capacitor in RC and LCR circuit.

**Note :** Students who have passed XII with Science are eligible to join the course

Unit will consist of 6hours of tutorials and hand on exercises.

**Reference:** Lab Manual prepared by IUAC, New Delhi.