

# 10 DAYS CERTIFICATE COURSE ON BASIC INSTRUMENTATION

*Organized by Department of Physics*

*Egra S.S.B College, Egra, Purba Medinipur, Pin-721429*

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- Title of the Course: **Basic Instrumentation**
  - Nature of the Course: **Theory & Practical**
  - Total Contact Hours: **30 hours**
  - Opening of Registration Process: 03.04.2023
  - Closing of Registration Process: 09.04.2023
  - Date for Commencement of the Course: **10.04.2023**
  - Closing Date of Course: **24.04.2023**
  - Duration: **10 days**
  - Total Number of Student Enrolled: **19 UG Students**
  - Registration Fees: **Nil**

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## Course Coordinator:

Dr. Dipak Kumar Hazra, Assistant Professor and H.O.D, Dept. of Physics, Egra S.S.B College

### **Number of Faculty Involved:**

Mr. Jyotirmoy Rath, SACT, Dept. of Physics, Egra S.S.B College

Mr. Sukdev Ghosh, SACT, Dept. of Physics, Egra S.S.B College

Miss. Suniti Pradhan, SACT, Dept. of Physics, Egra S.S.B College

Mr. Subhajit Jana, Guest Teacher, Dept. of Physics, Egra S.S.B College

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## Outcome of the Course:

- Identify the various parameters that are measurable in electronic instrumentation.
  - Employ appropriate instruments to measure given sets of parameters.
  - Practice the construction of testing and measuring set up for electronic systems.
  - Relate the usage of various instrumentation standards.
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## Section -1: Structure of the course

Type	paper	Title of the Paper
Theoretical	I	Basic Instrumentation
Practical	II	Electronic circuit fabrication and instrumentation

## Section -2: Syllabus of the Course

### Basic Instrumentation

1.1 Familiarization of electronics circuit components - Resistor, Capacitor, Diodes, Transistor, Inductor, Integrated Circuits.

1.2 Characteristics of AC and DC signals.

1.3 Familiarization of Galvanometer, Ammeter, Voltmeter, DC power supplies, AC signal Generator, CRO.

1.4 Electronics circuit fabrication basics- bred board, soldering techniques and household wiring.

1.5 Construction and working of simple electronic circuits- Rectifier, voltage regulator, amplifier, oscillator, multivibrator.

## SYLLABUS DISTRIBUTION

Sl.No	Faculty	Allotment
1	Dr. Dipak kumar Hazra	Familiarization of electronics circuit components - Resistor, Capacitor, Diodes, Transistor, Inductor, Integrated Circuits.
2	Mr. Jyotirmoy Rath	Characteristics of AC and DC signals.
3	Mr. Sukdev Ghosh	Familiarization of Galvanometer, Ammeter, Voltmeter, DC power supplies, AC signal generator, CRO.
4	Miss. Suniti Pradhan	Electronics circuit fabrication basics- bred board, soldering techniques and household wiring.
5	Mr. Subhajit Jana	Construction and working of simple electronic circuits- Rectifier, voltage regulator, amplifier, oscillator, multivibrator.

# Routine

**Subject: Basic Instrumentation**  
**Duration: 10/04/2023-24/04/2023**

Day/Time	09:15 – 10:15	3:30 – 4:30	4:30– 5:30
<b>Monday</b>	JR	DKH	SJ
<b>Tuesday</b>	DKH	SP	SG
<b>Wednesday</b>	JR	SP	DKH
<b>Thursday</b>	SJ	DKH	JR
<b>Friday</b>	JR	SG	SP
<b>Saturday</b>	SG	SP	JR

DKH= Dipak K. Hazra, JR= JyotirmoyRath, SG= Sukdev Ghosh; SP= Suniti Pradhan  
SJ= Subhajit Jana

Course Co-ordinator

HOD

Principal