

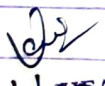
Notice


Date: 6-10-2025

We, the department of physics want to start "Value added course on "Basic Instrumentation techniques" for this academic year 2025-26. In this course, we will cover basic instrumentation techniques needed to the students.

The course will start in the month ~~January~~ of October & November 2025.

Hence, we are requesting you to give permission to start the add on course in physics department.


HOD
Department of Physics
Telangana Tribal Welfare Residential
Degree College for Women
Rajanna Sircilla-505405


Principal
T.G.T.W.R.D.C.(W)
THANGALLAPALLY
Dist: Rajanna Sircilla (T.G)

Course outline:

Course Name: Basic Instrumentation techniques

Eligibility: All physical science students.

Last date for registration: 12-10-2025

Course duration: 30 hours

Exam date: 21-11-2025

Course Coordinator: A. Saikala, DL in physics

Basic Instrumentation techniques

Syllabus:

Module 1: Introduction to Measurements & standards

Concepts: Accuracy, Precision, Sensitivity, Resolution, Range, Span.

Errors: Types of errors, Error analysis, standards: Calibration standards and traceability.

Module 2: Primary sensing elements & Electronic instruments:-

- 1) Temperature measurement: RTD, Thermocouples, Thermistors
- 2) Electronic instruments: Electronic voltmeter, AC

millivoltmeters, cathode ray oscilloscopes, Multimeter

Module ③ Signal Conditioning and Data Acquisition.

Bridge Circuits; Wheatstone bridge for resistance measurement. (strain gauge); "

Signal Conversion; Analog to Digital Converter, Digital to Analog Converter.

Course Outcomes;

On completion of this course, the student will be able to

- * identify and understand instrumentation Components.

- * Understand Measurement systems

- * Error Analysis \Rightarrow Students will be capable of evaluating, calculating and compensating for errors in measurement systems to ensure data reliability.

Evaluation procedures

Evaluation process is carried out using marks system. The Grades were given on the basis of total theoretical, ~~and~~ experimental and Viva voce marks.

Theory \rightarrow 30M

Experimental activity \rightarrow 10M

Viva voce \rightarrow 10M.

Grade division:

S.No.	Range of Marks	Grades.
1.	40 - 50M	A
2.	30 - 40M	B
3.	20 - 30M	C
4.	< 20M	D

[Signature]

HOD

HEAD

Department of Physics
Telangana Tribal Welfare Residential
Degree College for Women
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Jaya
Principal
T.G.T.W.R.D.C.(W)
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List of enrolled students:-

S.No.	Name of the student	H.T. No.	Group & yr.	Sign
1	D. Varshini	230771044681005	MPCe-III	varshini
2	M. Sravani	- 1015	"	Sravanani
3	P. Mamatha	- 1017	"	Mamatha
4	G. Ravali	- 1010	"	Ravali
5	U. Gayathri	240771044681014	MPCe-II	Gayathri
6	A. Kalyani	- 1016	"	Kalyani
7	M. Akshaya	- 1008	"	Akshaya
8	L. Ashwitha	- 1005	"	Ashwitha
9	Rishitha	- 1013	"	Rishitha
10	Hanika	- 1010	"	Hanika



Telangana Tribal Welfare Residential Degree College for Women,
Sircilla



CERTIFICATE

OF ACHIEVEMENT

THIS CERTIFICATE IS AWARDED TO :

Miss _____



for the successful completion of the value added course on "Basic Instrumentation Techniques" conducted by the "Department of Physics" for the academic year 2025-26 for 30 Hours and attended exam and assignments. The participant has obtained Grade _____

K. Vanisri
HEAD
Department of Physics
Telangana Tribal Welfare Residential
Degree College for Women
Rajanna Sircilla-505405

G. Jaya
Principal
T.G.T.W.R.D.C.(W)
THANGALLAPALLY
Dist: Rajanna Sircilla (T.G)

Student Attendance

Student Name	Group	13/10	14/10	15/10	16/10	17/10	18/10	20/10	21/10	22/10	23/10	24/10	25/10	27/10	28/10	29/10	30/10	31/10
1) D. Varshini	MPC-3 rd	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	13	15
2) M. Sravani	"	01	02	03	04	05	06	Ab	Ab	07	08	09	10	11	12	13	14	15
3) P. Manatha	"	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	14	15
4) G. Ravali	"	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	14	15
5) V. Gayathri	MPC-2 nd	01	02	03	04	05	Ab	Ab	Ab	06	07	08	09	10	11	12	13	12
6) Kalyani	"	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	14	15
7) M. Akshaya	"	01	02	03	04	05	Ab	Ab	06	07	08	09	10	11	12	13	12	13
8) Ashwitha	"	01	02	03	04	05	06	Ab	Ab	07	08	09	10	11	12	13	12	13
9) Rishitha	"	01	02	03	04	05	06	07	08	09	Ab	Ab	10	11	12	13	12	13
10) Harika	"	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	14	15

S.No.	Student Name	01/11	03/11	04/11	06/11	07/11	08/11	10/11	11/11	12/11	13/11	14/11	15/11	17/11	18/11	19/11
1)	D. Varshini	16	17	18	19	20	21	Ab	Ab	22	23	24	25	26	27	28
2.	M. Sravani	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3.	P. Manjitha	Ab	Ab	Ab	16	17	18	19	20	21	22	23	24	25	26	27
4.	G. Revathi	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
5.	V. Geetha	13	14	15	16	17	18	19	Ab	Ab	20	21	22	23	24	25
6.	Kalyani	16	17	18	Ab	Ab	Ab	19	20	21	22	23	24	25	26	27
7.	M. Akshaya	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
8.	Ashwitha	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
9.	Rishitha	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
10.	Hanika	16	17	Ab	Ab	Ab	18	19	20	21	22	23	24	25	26	27

Grades obtained

No.	Name of the student	I.T. NO.	Grades obtained	Marks obtained
1.	D. Varshini	230771044881005	⊙A	42
2.	M. Sravani	-1015	⊙A	44
3.	P. Mamatha	-1017	⊙A	41
4.	G. Ravali	-1010	⊙A	45
5.	V. Gayathri	240771044881014	⊙A	45
6.	A. Kalyani	-1016	B	33
7.	M. Akshaya	-1008	A	46
8.	L. Ashwitha	-1005	A	44
9.	Rishitha	-1013	B	33
10.	Harika	-1010	B	32

Silaha
Course Co-ordinator.

[Signature]

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