

**SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM**



Department of Physics

**CERTIFICATE COURSE IN LABORATORY SKILLS
DEVELOPMENT**

21.01.2019 to 20.02.2019

**Add on / Certificate programs offered during the year
2018-19**



S.A.S. GOVERNMENT DEGREE COLLEGE

(AFFILIATED TO ADIKAVI NANNAYA UNIVERSITY, RAJAMAHENDRAVARAM)

Phone: 08818 252189, E-mail: narayanapuram.jkc@gmail.com

NARAYANAPURAM, W.G DISTRICT-534406



CERTIFICATE COURSE AT A GLANCE



1. TITLE OF THE COURSE : **LABORATORY SKILLS DEVELOPMENT**
2. LEVEL OF THE COURSE : **UG**
3. NAME OF THE INSTRUCTOR : **Dr B V TIRUPANYAM**
4. DURATION OF THE COURSE: **30 HOURS**
5. DATE OF COMMENCEMENT : **21.01.2019**
6. DATE OF CLOSURE : **20.02.2019**
7. TIME OF CONDUCT OF THE CLASSES: **05:00 PM – 06:00 PM**
8. NUMBER OF STUDENTS ENROLLED FOR THE COURSE: **13**
9. NUMBER OF STUDENTS COMPLETED THE COURSE: **13**
10. ASSESMENT CRITERION : **PRESENTATION & DISCUSSIONS**


Incharge
Department of Physics
SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406

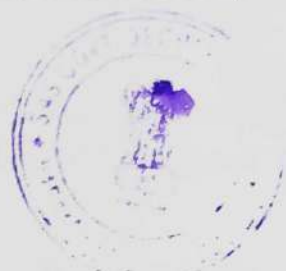


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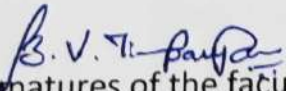


Minutes of Departmental Meeting on Certificate Course

The In Charge of the Department of Physics met in the Principal's chamber under the chairperson ship of Y Radha Krishna at 2:30 PM on Dt : 09-01-2019 discussed and resolved as detailed here under.

After the through discussion on the agenda of conducting certificate course as per the departmental action plan, it was resolved to

1. Conduct a certificate course titled "Laboratory Skill Development" with a duration of 30 hours during the working days
2. Frame the syllabus and regulations for the successful completion of certificate course
3. Conduct the Presentations and Discussions after the completion of course and issue certificate to the qualified students
4. Serve notice to the students well in advance for the enrolment into this course
5. Commence the course on the date fixed obtaining due permission from the chair.


Signatures of the faculty
incharge

Department of Physics
SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406

Principal

SAS GOVT. DEGREE COLLEGE
NARAYANAPURAM
West Godavari District.
Pin: 534 406, Andhra Pradesh



PERMISSION LETTER FOR CERTIFICATE COURSE

NARAYANAPURAM,

Dt. 10.01.2019

From
The In-charge,
Department of Physics,
SAS GDC, Narayanapuram.

To
The Principal,
SAS GDC, Narayanapuram.

Sir,

Sub: Department of Physics, SAS Govt. Degree College, Narayanapuram-
Conduct of Certificate course in **Laboratory Skill Development** (30 hours) -
Accordance of permission requested-Reg.

Ref: Minutes of the departmental meeting dated 09-01-2019

Adverting to the subject, I wish to submit to your kind self that the Department of Physics is planning to conduct a Certificate course in "**Laboratory Skill Development**" with 30 hours duration for the students of our college as well as the general public . A resolution was passed to this effect in the Departmental meeting dated 09-01-2019 . Hence I request you to kindly accord permission to conduct the same from 21-01-2019 onwards.

Thanking you sir.

Yours faithfully

B. V. Thirupathi
Incharge

Department of Physics
SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406

Enclosures

1. A xerox copy of the minutes of
Departmental meeting dt. 09.01.2019
2. A copy of syllabus



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NARAYANAPURAM, W.G DISTRICT-534406



PROCEEDINGS OF THE PRINCIPAL, SAS GOVT. DEGREE COLLEGE, NARAYANAPURAM.

DATE : 11-01-2019

To
The In-charge,
Department of Physics,
SAS GDC
Narayanapuram .

Sir/Madam,

Sub: SAS Govt. Degree college, Narayanapuram- Conduct of certificate course in
Laboratory Skill Development- Permission accorded- Reg.

Adverting to the subject, I here by draw the kind attention of the in-charge of department of Physics of this college ,that a decision was taken in the staff council meeting 11.01.2019 dated after much discussions and deliberation to approve and accord permission for the conduct of a certificate course Laboratory Skill Development with 30 hours duration for the general public as well as the students of our college from dt. 21-01-2019

You are further instructed to make all the necessary preparations and arrangements for the commencement of the course on dt . 21-01-2019.

PRINCIPAL
PRINCIPAL
SAS GOVT. DEGREE COLLEGE
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West Godavari District.
Pin: 534 406, Andhra Pradesh



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NOTICE

NARAYANAPURAM

Dt.19.01.2019

All the students of SAS Govt. Degree college, Narayanapuram are hereby informed that the Department of Physics is intending to conduct a certificate course in "Laboratory Skill Development" from 21-01-2019 onwards. The required permission from the honourable Principal of the college has been obtained. Hence the students who are interested in enrolling themselves for the course may please contact the in-charge of the department for further details on or before dt.21-01-2019.

Principal

PRINCIPAL
SAS GOVT. DEGREE COLLEGE
NARAYANAPURAM
West Godavari District, T.
Pin: 534 406, Andhra Pradesh

In-charge of the dept.

Department of Physics
SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406



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NARAYANAPURAM, W.G DISTRICT-534406



Department of Physics

(CERTIFICATE COURSE IN LABORATORY SKILLS DEVELOPMENT)

Certificate Course

Syllabus

2018-19

LABORATORY SKILL DEVELOPMENT:

THEORY:


Basic of fluorescent tubes, role of choke and stater, soldering materials and Gun, Functions on front panel of Multimeters and Basic principles involved. Concept of L,C and R and its measuring using LCR meter, Dielectric Loss, Ganged Capacitor, Potentiometer, Transistor Oscillator, AF/RF Generator, Block Diagram study of Cathode Ray Oscilloscope) CRO (Various Functions), Applications of CRO for measurement of frequency, Phase and voltage, component testing etc.

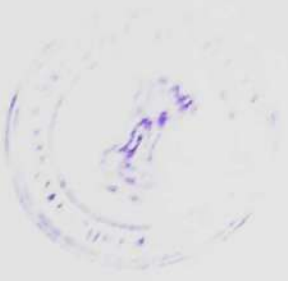
PRACTICAL

1. Assemble and test-operate a fluorescent tube
2. Solder given components on given training board.
3. Measurement of resistance, capacitance, frequency, current and voltage (AC/DC) using digital and analogue multimeters.
4. Testing a transistor and P-N junction diode using multimeters(D&A).
5. Fault finding (open circuit/short circuit) in given electrical networks using multimeter.
6. To study loading of multimeter (D&A) with respect to other voltmeters.
7. Measurement of impedance of given material sample at different frequencies using an LCR meter and measurement of L,C and R.
8. To determine voltage sensitivity of deflection plates of CRO.
9. To obtain stable wave forms for a.c signals of varying frequencies.
10. To compare two a.c signals on CRO by studying of Lissajou's Figure.

Reference:

1. Course work manual for theory.


Incharge
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SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406

- 
2. Course work manual for practical.
 3. Manual for given CRO
 4. Manual for LCR meter.
 5. Manual for AF/RF Generator.
 6. Basic electronics-thereja.
 7. Unified physics vol-III
 8. Basic electronics: McGraw Hill
 9. Electronics instrumentation & measurement techniques: W.D Cooper
 10. Integrated Electronics: Millman and Hakias

Scheme of Examination: 50 marks

1. Discussion Session: Duration 1 hour
2. Presentation 2 hours



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Theory

Topic	Name of the topic	Duration
Topic-I	Assembling a tube light	90 min
Topic-II	Soldering techniques	90 min
Topic-III	Introduction to Digital and Analogue Multimeter	90 min
Topic-IV	Introduction to LCR meter	90 min
Topic-V	Introduction to AF/RF Signal Generator	90 min
Topic-VI	Introduction to Cathode Ray Oscilloscope (CRO)	90 min

Practical

Topic	Name of the topic	Duration
Topic-I	Assembling a tube light	180 min
Topic-II	Soldering techniques	180 min
Topic-III	Introduction to LCR meter	180 min
Topic-IV	Introduction to AF/RF Signal Generator	180 min
Topic-V	Introduction to Digital and Analogue Multimeter	180 min
Topic-VI	Introduction to Cathode Ray Oscilloscope (CRO)	180 min


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Department of Physics

(CERTIFICATE COURSE IN LABORATORY SKILLS DEVELOPMENT)

Certificate Course Evaluation Process – 2018-19

Course Name	Name of the paper	Lectures/week	Total No. Of Lectures	Discussion	Presentation	Total marks
Certificate Course	Laboratory Skill Development	06	30	30	20	50


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Department of Physics

2018-19

Course Objectives:

- Understand the basic working principles of important electrical and electronic circuit components.
- Troubleshooting the laboratory equipment's.
- Develop the skill of simple electronic circuit fabrication and instrumentation


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Department of Physics

2018-19

Certificate Course - Student Attendance Register

Sl.No.	Roll No.	Name of the Student	21.01.2019	22.01.2019	23.01.2019	24.01.2019	25.01.2019	28.01.2019	29.01.2019	30.01.2019	31.01.2019	01.02.2019
01	163557101001	A. Jhansi Bai	P	P	P	P	P	A	P	P	P	A
02	163557101002	A. Srinivay	P	P	P	P	P	P	A	P	P	P
03	163557101003	D. Venkata ratu	P	P	P	P	A	P	P	P	P	P
04	163557101006	G. Jyothsna	P	P	P	P	P	P	P	P	P	P
05	163557101008	J. Sai kumar	A	P	P	P	P	P	P	P	P	P
06	163557101009	M. Dimple	P	P	P	P	P	P	P	P	P	P
07	163557101010	M. Durga devi	P	P	P	P	P	P	P	P	P	P
08	163557101011	M. Bharathi devi	P	P	P	A	P	P	P	P	P	P
09	163557101012	N. kumari durga	P	A	P	P	P	P	P	P	P	P
10	163557101014	P. Taji	P	P	P	P	P	P	P	P	P	P
11	163557101015	P. Sai kumar	P	P	P	P	P	P	P	P	P	P
12	163557101018	U. mohan	P	P	P	P	P	P	P	P	P	P
13	163557101019	V. Ramya	P	A	P	P	P	P	P	P	P	P
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15												
16												
17												
18												
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20												
Signature of the Lecturer			B.	B.	B.	B.	B.	B.	B.	B.	B.	B.

B.V. Thangaraj
Incharge

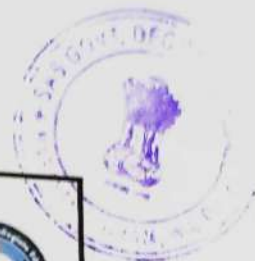
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Department of Physics

2018-19

Certificate Course - Student Attendance Register

Sl.No.	Roll No.	Name of the Student	02.02.2019	04.02.2019	05.02.2019	06.02.2019	07.02.2019	08.02.2019	11.02.2019	12.02.2019	13.02.2019	14.02.2019
21	163557101001	A. Jhansi sai	P	P	P	P	P	A	P	P	P	P
22	163557101002	A. srinivas	P	P	A	P	P	P	P	P	P	P
23	163557101003	B. venkata Raju	P	P	P	P	P	P	P	P	P	P
24	163557101006	G. Jyothsna	P	P	P	P	P	P	P	P	P	P
25	163557101008	J. Sai Kumar	P	P	P	A	P	P	P	P	P	P
26	163557101009	M. Dimple	P	A	P	P	P	A	P	P	P	P
27	163557101010	M. Durga devi	P	P	P	P	P	P	P	P	P	P
28	163557101011	M. Bharathi devi	P	P	P	A	P	P	P	P	P	P
29	163557101012	N. Kumari durga	P	P	A	P	P	P	P	P	P	P
30	163557101014	P. TEJA	P	P	P	P	P	P	P	P	P	P
31	163557101015	P. Sai Kumar	P	P	P	P	P	P	P	P	A	P
32	163557101018	V. Mohan	P	P	P	P	P	P	P	A	P	P
33	163557101019	V. Ramya	P	P	P	P	P	P	P	P	P	P
34												
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Signature of the Lecturer			B. B. B. B. B. B. B. B. B. B.									

B. V. S. L. P. S.
Incharge

Department of Physics
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Department of Physics

2018-19

Certificate Course - Student Attendance Register

Sl.No.	Roll No.	Name of the Student	15.02.2019	16.02.2019	18.02.2019	19.02.2019	20.02.2019	21.02.2019	22.02.2019	23.02.2019	25.02.2019	26.02.2019
41	163557101001	A. Jhansi sai	P	P	P	P	P	A	P	P	P	P
42	163557101002	A. srinivas	P	P	P	A	A	P	P	P	P	A
43	163557101003	B. venkata Raju	P	P	P	P	P	A	P	A	P	P
44	163557101006	G. Jyothsna	P	P	P	P	P	A	P	P	P	P
45	163557101008	J. Sai kumar	P	A	A	P	P	P	A	P	P	P
46	163557101009	M. Dimple	P	P	P	A	P	P	P	P	A	P
47	163557101010	M. Durga devi	P	P	P	P	A	P	P	P	P	P
48	163557101011	M. Bhakti devi	P	P	P	A	P	P	P	P	P	P
49	163557101012	N. Kumari durga	P	P	A	P	P	A	P	P	P	A
50	163557101014	P. Teja	P	A	P	P	P	P	P	P	P	A
51	163557101015	P. Sai kumar	P	P	P	P	A	A	P	P	P	P
52	163557101016	V. Mohan	A	P	P	P	P	P	P	P	A	P
53	163557101019	V. Ramya	P	P	P	A	P	A	P	A	P	P
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60												
Signature of the Lecturer			P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy	P. V. K. Parthasarathy

P. V. K. Parthasarathy
Incharge

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Department of Physics

2018-2019

Certificate Course - Student Attendance Register

Sl. No.	Date	No. of Students Present	No. of Students Absentees	Signature of the Lecturer
01	21.01.2019	12	1	
02	22.01.2019	11	2	
03	23.01.2019	13	0	
04	24.01.2019	12	1	
05	25.01.2019	12	1	
06	28.01.2019	12	1	
07	29.01.2019	12	1	
08	30.01.2019	13	0	
09	31.01.2019	13	0	
10	01.02.2019	12	1	
11	02.02.2019	13	0	
12	04.02.2019	12	1	
13	05.02.2019	11	2	
14	06.02.2019	11	2	
15	07.02.2019	13	0	
16	08.02.2019	11	2	
17	11.02.2019	13	0	
18	12.02.2019	12	1	
19	13.02.2019	12	1	
20	14.02.2019	13	0	


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Department of Physics

2018-2019

Certificate Course - Student Attendance Register

Sl. No.	Date	No. of Students Present	No. of Students Absentees	Signature of the Lecturer
21	15.02.2019	12	1	B.
22	16.02.2019	12	1	B.
23	18.02.2019	12	1	B.
24	19.02.2019	9	4	B.
25	20.02.2019	10	3	B.
26	21.02.2019	7	6	B.
27	22.02.2019	12	1	B.
28	23.02.2019	11	2	B.
29	25.02.2019	11	2	B.
30	26.02.2019	10	3	B.
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Incharge

Department of Physics
SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406



SAS Government Degree College Narayanapuram




Department of Physics

(CERTIFICATE COURSE IN LABORATORY SKILLS DEVELOPMENT)

Brief Report on Certificate Course

In the Academic Year 2018-19 certificate course programme on Certificate course in **LABORATORY SKILLS DEVELOPMENT** was conducted in the Department of Physics from 21.01.2019 to 20.02.2019 a good number of students were admitted for this certificate course. Through this course students get knowledge about various techniques of Laboratory Skill in physics. Assessment was done in the form of Discussion and presentation.


Head Dept. Of Physics


Principal
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In charge
Department of Physics
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S.A.S. GOVERNMENT DEGREE COLLEGE, NARAYANAPURAM

Affiliated to Adikavi Nannaya University, Rajamahendravaram



DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that Mr/Ms. M. Dimple, M.B.Sc MPC Section A Roll No. 1009
has attended the **CERTIFICATE COURSE IN LABORATORY SKILLS DEVELOPMENT**
conducted during academic year 2018 - 2019 and having passed the examination prescribed therefore
was declared to have completed the course.

B. V. Thangaraj
Head of the Department

Department of Physics
SAS GOVERNMENT DEGREE COLLEGE
NARAYANAPURAM-534 406

V. D

Principal
PRINCIPAL

SAS GOVT. DEGREE COLLEGE
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West Godavari District
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S.A.S. GOVERNMENT DEGREE COLLEGE, NARAYANAPURAM

Affiliated to Adikavi Nannaya University, Rajamahendravaram



DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that Mr. A. SRINIVAS, B.Sc Mpc Section A Roll No. 1002
has attended the **CERTIFICATE COURSE IN LABORATORY SKILLS DEVELOPMENT**
conducted during academic year 2018 - 2019 and having passed the examination prescribed therefore
was declared to have completed the course.

B. V. Venkatesh
Head of the Department

Department of Physics
SAS GOVERNMENT DEGREE COLLEGE

NARAYANAPURAM-534 406

V. D.

[Signature]
Principal

PRINCIPAL
SAS GOVT. DEGREE COLLEGE
NARAYANAPURAM

West Godavari District.
Pin: 534 406, Andhra Pradesh