

DEPARTMENT OF PHYSICS

GOVT. DEGREE COLLEGE, PORUMAMILLA, KADAPA



DEPARTMENT PROFILE

1. Name of the Department : PHYSICS
2. Year of Establishment : 1992
3. Names of the Courses offered :

S. no	Programme	Course	Group
I	UG	B. Sc	MPCS, MPE (OLD)
II	UG	B. Sc (Honours)	Physics – Minor (NEW)-w.e.f 2023-24

5. Annual / semester / choice based Credit system (Programme wise):-

S. No	UG	Course	System
1	UG	B.Sc	Semester

6. Participation of the department in
The courses offered by other departments : **Yes**

7. Number of teaching posts:-

Name of the Post	Number of Posts sanctioned	Number of Posts filled
Professor	-	-
Associate Professor	-	-
Assistant Professor	02	01+01

The present Working Faculty-2023-2024:

Sl. No	Name of the Faculty	Designation	Specialization
1.	Dr. K.Venkata Rao	Lec. in Physics	Solid state spectroscopy
2.	Sri.P.V.S.Sobhan babu	Lec. in Physics	Electronics

8. **History of the Department:**

The Department of Physics was established in 1992. Since then it has been functioning under the administrative control of the Principal and the Commissionerate of Collegiate Education, Hyderabad, A.P and it has been affiliated to Yogi Vemana University, Kadapa.

The Department has two Labs, equipped with scientific lab equipment. It has been functioning successfully since 1992. All the students of Physics Dept. have been doing experiments in physics labs. The Department has a Departmental Library, which consists of 30 books useful for the faculty and students. It is also equipped with 1 computer, 1 scanner and 1 printer.

At present there are 2 Regular faculty members. They are Dr.K.Venkata Rao and Sri P.V.S. Sobhan babu. They are engaged in teaching U.G students only. They are also involved in Seminar participations, Paper presentations, and paper publications. Dr.Venkata Rao is guiding 4 scholars at present, Out of 4 scholars 1 scholar is full-time and 3 are part-time scholars.

Teaching Learning Process:

- ❖ The faculty members are following various teaching methods like, Project method and ICT methods.
- ❖ The teachers use various teaching aids in the class like charts, graphs, newspaper clipping, LCD Projector, Computers, Smart phones, Virtual Class, in addition to black board.
- ❖ For conducting online classes they also used Zoom, CISCO-WebEx online platforms.
- ❖ Study material is supplied to all the students through Whatsapp groups maintained by the Faculty members.
- ❖ Model question papers, question banks, old question papers etc are used to guide the students to face the examinations confidently.
- ❖ Remedial Coaching is provided to the slow learners.

❖ In order to provide more learning experience to the students Co-curricular activities like Student seminars, Group discussions, Debate, Quiz, Field trips are conducted by the Dept. as per the Annual Curricular Plan.

9. OBJECTIVES OF THE DEPARTMENT:

1. To awaken the young minds and discover their talents both in theory and in practical Physics, through dedication to teach, commitment towards students and innovative instructional methods like PPT, visual aids, digital classes and virtual classes.
2. To support the developmental activities of the college and make the department vibrant.
3. To make vital contributions in areas such as faculty, modern labs, and demonstrate a high level of competence in the study of Physics.
4. To organize and sustain efficient operating systems in the department for realization of our objectives as institution of eminence and good standards.
5. To develop strategy in the department for continuous improvement

6. Distinguished Faculty Worked in the Department:-

S.No	Name	Position Held	Experience of the service
1	Sri.Siva ram Krishna Reddy	Lecturer in physics	18years
2	Sri.Lokeswar Reddy	Lecturer in physics	18years
3	Sri.SK.Jamal Basha	Lecturer in physics	18years
4	Sri.Siva Rami Reddy	Lecturer in physics	18 years
5	Dr.K.Venkata Rao	Lecturer in physics	16 years
6	Sri,S.Madhu babu	Lecturer in physics	14 years
7	Sri.P.V.S.Sobhan babu	Lecturer in physics	18 years

How many students have cleared national and state competitive examinations, Civil Services, Defence Services, etc?

Defense services: 20%

Student Progression:-

Student progression	Against % enrolled
UG to PG	20
Campus selection	25
Other than campus recruitment	30
Entrepreneurship / self-employment	25

7. Results Analysis: (From 2019-20 to 2023-24)

The Department's academic results in University examinations are gradually increasing from 2017-18 to 2021-2022 as shown below.

Academic Year	Appeared	Passed	Pass %
2019-20	53	47	89
2020-21	63	59	94
2021-22	74	60	81
2022-23	45	40	89
2023-24	34	29	85

8. Details of Infrastructure facilities

i. Library

- ✓ No. of Books : 30
- ✓ No of Journals: 00
- ✓ No. of Beneficiaries : 80%
- ✓ Whether books issued to students: Yes
- ✓ Whether Issue Register is maintained: Yes

ii. Internet facilities for Staff and Students:

- ❖ No. of Computers:01,Printers: 01
- ❖ No of Computers having Internet connectivity : 01
- ❖ Users: Staff

iii. Laboratories:

- No. of Laboratories : 02, Physics labs- 01
Dark Room : 01

Teaching methods adopted to improve student learning

- Lecture Method
- Demonstration Method
- Lecture cum Demonstration Method
- Assignment Method
- ICT based Teaching
- Power Point Presentation (PPT)
- You-tube Videos and online videos
- Field trips
- Project Method (Student Study Projects)
- Class room Student seminars
- Quiz
- Debate
- Group Discussion

Participation in Institutional Social Responsibility (ISR) and Extension activities

- a. Students and staff of the department are actively participating in JKC, RRC, YRC, Eco Club, NCC and NSS activities of the college.
- b. The students are encouraged to participate in social services like National Science day, birth of national and international scientists, Yoga training programmes and HIV/AIDS Awareness programmes and celebrations of National festivals.
- c. **Field Trip: 1.** Visited wind power energy, kondugari palli. at Porumamilla mandal, Kadapa district in year 2021-2022 Porumamilla.
- d. **Field Trip: 2.** Conducted another trip in the year 2022-2023 to APSPDCL Repair station of Transformers, Porumamilla, Kadapa Dist.

Extension Activities:- Y V University spot valuation and observer duties

9. BEST PRACTICE:

- 1. Awareness on Physical science equipment to the school and junior college Students.**
- 2. Visited primary and upper primary schools and interacted with students by stimulating interested towards science and technology.**
 - a. **Preparation & supply of study material:**
 - i. The Dept. of Physics Prepared Study material for I, II and III year Papers.
 - ii. The study material prepared by the department is supplied to the students through Whatshap groups and also uploaded in college website.
 - iii. Semester wise syllabus and previous question papers are uploaded website and sent through students whatsapp groups.

10. SWOC analysis of the departmental and Future Plans:

i. Strengths:

- ✓ Highly Qualified and experienced faculty
- ✓ Good infrastructure
- ✓ Departmental Library
- ✓ Consistent good feedback from the students indicates the excellent quality of the teacher
- ✓ Effective Teaching Methods

ii. Weakness

- ✓ Decreasing enrolment in UG courses
- ✓ Enrolment of substandard students in the department
- ✓ College is situated away from the town

iii. Opportunities:

- ✓ Three reputed Universities are located nearby to pursue further education and research.
- ✓ Bright opportunities for placements in MNC's through Recruitment Drives conducted by APSSDC.
- ✓ Students are motivated to take part in Student Study Projects and Minor Research Projects.

iv. Challenges:

- ✓ To provide hi-tech facilities to avoid threat from corporate educational institutions
- ✓ To enhance the student enrolment in UG courses
- ✓ To develop research activities in future
- ✓ Improving the pass percentage of results of economically, educationally and socially backlog students.

v. Future Plans

- ✓ To inculcate, motivate and inspire students to get involved in research activities by conducting more conferences / seminars / workshops
- ✓ Free coaching for PG entrance exams.


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