Department of Physics

Khatra Adibasi Mahavidyalaya

Plan of Action A.Y 2018-19

The comprehensive plan of action for the Department of Physics at Khatra Adibasi Mahavidyalaya, a general undergraduate degree college, affiliated to Bankura University for the academic sessions for 2018-19 involves several key components: academic planning, faculty development, infrastructure improvement and student engagement.

Below is a detailed plan of action:

Plan of Action	Details of the Plan	Achieved or not	Reason/Remarks
1. Student Orientation/Induction programme for fresher Students	The Department of Physics at Khatra Adibasi Mahavidyalaya is aiming in collaborating with the Mathematics and Chemistry departments to organize Student Induction Programme a) The orientation program aims to familiarize students with the college environment, including its facilities such as the hostel, labs, library, and gymnasium. It also provides a brief overview of the college website. b) The orientation program encourages interaction among students, faculty members, and peers to foster a sense of community within the college. c) It includes an overview of the curriculum, emphasizing the Choice Based Credit System (CBCS) pattern, evaluation methods like Cumulative Grade Point Average (CGPA) and Semester Grade Point Average (SGPA), and information on the feedback mechanism for continuous improvement. d) The program encompasses various social activities organized through National Service Scheme (NSS) and National Cadet Corps (NCC), along with extracurricular and cultural events to encourage holistic development. e) Lastly, the orientation program provides a platform to address any queries or concerns new students may have, ensuring a smooth transition into college life & the CO PO & PSO of the Course. https://kamv.ac.in/course_outcome.php	Partially Achieved	Reason for collaboration: At Khatra Adibasi Mahavidyalaya in Khatra, Bankura, a tribal belt; where most of the students are the first-generation learners and there are few students studying Physics and science. This low enrollment highlights the need for enhanced outreach and support to encourage greater participation in these critical fields, aiming to uplift and empower the local tribal community through science education. But the nearby schools have also very less number of students those are studying science. However, the department expects a higher enrolment in Department of Physics in near future.
2. Curriculum Module Allocation	a) The department adheres to the curriculum and syllabus outlined by the affiliating university (Bankura University). Each semester's syllabus is organized into modules, ensuring that the prescribed syllabus is covered thoroughly. But for the Department of Physics. **Due to lack of full-time lecturer, all the topics is to be vovered by a highly overloaded Full-time faculty and two Guest faculties compromising with the allocated credits for each paper.** b) The division of syllabus into modules and the unitization of syllabus are meticulously planned prior to the start of classes, and they are implemented in a systematic manner. c) Additionally, Course Outcomes, Program Outcomes, and Program Specific Outcomes are formulated as part of the academic framework.	Yes, allocated.	Full-time Faculty strength is low. **Dr. Siddhartha Sinha (FTT)** in managing all the claases for the 1st year Honours, 1st year GE & the three-year Programme students in the Science departments with two **Guest Lecturer Sumanta Gorai** & **Meenakshi Mandal**.

	https://kamv.ac.in/dept_contents.php?did=12&item_id=2		
3. Mentorship Programme	The Department was aiming implementing a mentor-mentee allotment program in the Department of Physics at Khatra Adibasi Mahavidyalaya is to provide personalized academic guidance, improve student engagement and performance, distribute faculty workload effectively, and create a supportive learning environment that fosters academic and personal growth for students. https://kamv.ac.in/dept_contents.php?did=12&item_id=9	Yet to achieve a Mentor-Mentee structure	Faculty strength is low. Dr. Siddhartha Sinha in managing all the claases for the 1st year Honours, 1st year GE & the three-year Programme students in the Science departments. Dr. Sinha has taken the responsibilities of the Honours Students and the programme Students those have Physics as Core subject (D_1)
4. Maintenance of Student Attendance Register	Attendance is recorded daily in the Student Attendance Registers.	Yes	
5. Continuous Assessment	The Department conducts continuous assessment by providing them assignments after every class apart from scheduled IA examinations.	Yes	
6. Syllabus Completion	It is hardly possible for completing the syllabus of all three-year students in association with a single faculty member. However, anyhow the syllabus for all courses in the undergraduate program is to be completed within the allocated time frame.	Partially achieved	Dr. Siddhartha Sinha in managing all the claases for the 1st year Honours, 1st year GE & the three-year Programme students in the Science departments. He took maximum possible class load to cover up the syllabus
7. Laboratory upgradation	The Honours course in Physics under CBCS had just started in the 2017-18 session. **Laboratory set-up for the first-year students was completed but those for the second-year students is under process**. There is lack of monetary fund for setting up new laboratory set up. To build the Laboratory set-ups for the second-year and 3rd year students. A part of **RUSA 2.0 Grant** is to be mobilized for upgradation of Physics Laboratory. (approved by Nodal Officer/Coordinator Dr. Md. Asif Ikbal and Teacher-in Charge Dr. Parthasarothi Hati)	Partially achieved	The Honours course in Physics under CBCS had just started in the 2017-18 session. Laboratory set-up for the first-year and second year students was partially completed but those for the third-year students is under process. (purchased in the previous academic session March, 2018-19) Physics Laboratory new set-ups: 1. Thermal Conductivity of copper by Searle's method. 2. Determination of the Wavelength of LASER source using Single and double slit. 3. To measure the resistivity of Ge with temperature by 4-probe method and to determine its band gap. 4. To determine the specific rotation of sugar solution using Polarimeter. 5. Variation of EMF with Temperature difference by Thermocouple.

			6. Determination of specific heat of water by Callender and Barne's method. 7. To determination of temperature coefficient of resistance by Platinum resistance thermometer. 8. To determine the value of e/m by CRT and bar magnet, 9. Determination of work function of a filament - material of directly heated vacuum diode (EZ-81) 10. Digital to Analog converter kit 11. To show the tunnelling effect in Tunnel-diode using I-V Charactristics. 12. To determine the Ionization Potential of Hg. 13. Measurement of Plank's constant using Black-body radiation and photo detector. 14. Determination of g by bar pendulum 15. Determination of thermal conductivity of a bad conductor by Lee's method Equipment/parts: 1. Bread board 2. Bread Board coil. 3. Copper Coil 4. Digital Voltmeter (0-20V) 5. Digital Milliammeter (0-300mA) 6. Digital micro ammeter 7. Regulated power Supply (0-2V) 8. Regulated Power Supply (0-10C)

9. Faculty development programme/Seminar/Workshop/Orientation Programme/Faculty Induction Programme	https://kamv.ac.in/naac/ssr_dvv/1710934194_6.3.3%20DVV_compressed.pdf	Yes	
10. E- Content development	Few E- Content developed by Dr. Siddhartha Sinha those are to be sent to the website sub-committee for uploading to the college website. https://kamv.ac.in/dept_contents.php?did=12&item_id=7	Yes	Prepared by Dr. Siddhartha Sinha
11. Cocurricular activities	Yet to conduct and achieve	Yet to achieve	Yet to reveal the documents collected.
12. Academic Audit	The aim of an academic audit in the Department of Physics at Khatra Adibasi Mahavidyalaya is to evaluate the effectiveness of academic programs, ensure quality education, identify areas for improvement, enhance faculty performance, and ensure that educational standards and institutional goals are being met. https://kamv.ac.in/dept_contents.php?did=12&item_id=4	Done	
13. Student support	The Department of Physics at Khatra Adibasi Mahavidyalaya is aiming in collaborating with the Mathematics and Chemistry departments to organize motivational seminars and career counselling sessions. These seminars and webinars will be conducted / organized to inspire students, to provide career guidance, and to foster interdisciplinary connections, to enhance overall academic and professional development for all participants. https://kamv.ac.in/career_guidance.php	Yet to achieve	Yet to conduct such Programme. The Department is aimimg for conducting a career guidance programme in next 1-2 academic sessions.
14. Perspective plan	Department has a novel long-term perspective plan for running the present and future curricular and cocurricular activities. https://kamv.ac.in/dept_contents.php?did=12&item_id=11	Started, yet to achieve.	Perspective Plan has been posted in the respective Tab in the Departmental profile in the college website
15. Energy Audit (Physics Lab.)	Department is trying to expose an estimation of energy consumed by the Physics Lab experiments.	Yet to achieve	That will be done after a moderate upgradation of the Physics Laboratory..