



Vidya Vikas Mandal Pathrud's

Shankarrao Patil Mahavidyalaya, Bhoom

Tq. Bhoom Dist. Osmanabad

DEPARTMENT OF PHYSICS

A) Scope of the Subject: -

Bhoom is the one of the taluka which belong in osmanabad distinct of Maharashtra State. It is rural, drought area; the area is socially, economically backward. In this area Vidya Vikas Mandal saw a seed of higher education with the intention and goal to educate the society for better tomorrow; this is a one kind of movement in this remote, isolated area where there is no source of education. With the starting of this college in Bhoom; the Physics Department established in the year 2004. The department has to face many challenges; the college is in rural area with rural background of the student; teaching Physics to those students is difficult process; another thing is creating interest for Physics learning is one more mile stone for the department.

The department found the scope in this critical situation; there is a scope to teach Physics to the rural student; to introduce student with global world; to give student confidence, to encourage students, to inspire students to learn Physics; there is a scope to introduce student with various opportunities etc. There is lot of scope to the department of Physics in this area.

B) Importance of the Physics subject:

- Physics is an exciting intellectual adventure that inspires young people and expands the frontiers of our knowledge about nature.
- Physics generates fundamental knowledge needed for the future technological advances that will continue to drive the economic engines of the world.
- Physics is an important element in the education of chemists, engineers and computer scientists as well as practitioners of the other physical and biomedical sciences.
- Physics help us to understand the world around us, find quantitative Physical laws for everything, bring a broad perspective to any problem and satisfy our curiosity.
- Physics deals with the things like matter, force, energy and motion. All these are related to our daily tasks. Physics defines how everything around us works.

D) Objectives of Physics Department:

1. Physics helps to develop the ability to think.
2. It helps explain how things work.
3. It helps to develop wisdom.
4. Physics an opportunity to develop and hone problems solvind skills, that is critical thinking in the true sense of the phrase.

5. Providing a solid grounding in the methods of scientific inquiry.
6. The Department of physics aspires to be a global center of excellence in physics research and education.
7. It is important in a constantly evolving world.
8. It provides the child with an opportunity to get to the world.

E) Introduction of the Department:

Vidya Vikas Mandal Pathrud's Shankarrao Patil Mahavidyalaya, Bhoom is established in 1984. College is affiliated with Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. The Department of Physics is started in 2003; from that point the department was run by the temporary faculty; Generally, the students of the department are from rural background. The department offers Physics Subject to B.Sc. students. To meet the aims and objectives of the department; department has started certificate course. For slow learner's department conduct remedial coaching classes and to observe the improvement of the students, department have continuous evaluation process. To shoulder the responsibility of the society, the institute has mentorship system. Our department has 70 students for mentee. The Department avails personal counseling to student. Department always use new technology to update the students and try to connect the students globally.

F) Establishment of the Department:

The Department of Mathematics is established in 2003. The department offer undergraduate courses to B.Sc.

Sr.No.	University/ Board	Courses	The year of Establishment
1.	B.Sc. UG	B.Sc.I	2004
2.		B.Sc.II.	2004
3.		B.Sc.III	2006

Name of the courses run in the department (include certificate courses if any)

Name of course	Year of introduction
BSC FIRST YEAR Semester 1 1) Paper I- Mechanics, Properties of Matter and Sound 2) Paper II-Heat and Thermodynamics 3) Paper III-Practical Semester 2 1) Paper IV-Geometrical and Physical optics 2) Paper V- Electricity and Magnetism 3) Paper VI- Practical	2013
BSC SECOND YEAR Semester 3 1) Paper VII- Mathematical, Statistical Physics and Relativity 2) Paper VIII- Modern and Nuclear Physics 3) Paper IX-Practical 4) Paper X- Practical	

<p>Semester 4</p> <ol style="list-style-type: none"> 1) Paper XI- General Electronics 2) Paper XII- Solid state physics 3) Paper XIII-Practical 4) Paper XIV- Practical <p>BSC THIRD YEAR</p> <p>Semester 5</p> <ol style="list-style-type: none"> 1) Paper XV- Classical & Quantum Mechanic 2) Paper XVI- Electrodynamics 3) Paper XVII-Practical 4) Paper XVIII- Practical <p>Semester 6</p> <ol style="list-style-type: none"> 1) Paper XIX- Atomic, Molecular Physics & Laser 2) Paper XX- Non-conventional energy sources and Optical fiber 3) Paper XXI-Practical 4) Paper XXII- Practical 	
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G) Faculty of the Department:

1) Teaching staff (Year wise 2017-18 to till date)

Sr. No	Name	Designation	Qualification
1	GHULE P.L	ASST.PROF	M.Sc. B.Ed.
2	UGHADE A.S	ASST.PROF	M.Sc. B.Ed.

2) Teaching staff 2018 -2019

Sr. No	Name	Designation	Qualification
1.	GHULE P.L	ASST.PROF	M.Sc. B.Ed.
2.	UGHADE A.S	ASST.PROF	M.Sc. B.Ed.

4) Teaching staff 2020-2021

Sr. No	Name	Designation	Qualification
1.	GHULE P.L	ASST.PROF	M.Sc. B.Ed.

5) Teaching staff 2021-2022

Sr.No	Name	Designation	Qualification
1.	GHULE P.L	ASST.PROF	M.Sc.B.Ed.

6) Teaching Staff 2022-2023

Sr.No	Name	Designation	Qualification
1.	RATHOD R..D.	ASST.PROF.	M.Sc.B.Ed. SET

Extra Co-curricular Activities

Dr Babasaheb Ambedkar Marathwada University Aurangabad Affiliated
VIDYA VIKAS MANDAL PATILRUD'S SHANKARRAO PATIL MAHAVIDYALAYA, BHOOM
 Pardoli Road, Bhoom, Osmanabad, Maharashtra - 413 504

DEPARTMENT OF BOTANY, ZOOLOGY, CHEMISTRY, PHYSICS, MATHEMATICS & IQAC
 ORGANIZES ONE DAY WEBINAR ON

STRATEGIES TO CRACK COMPETITIVE EXAM IN PHYSICAL SCIENCE
 IN ASSOCIATION WITH
INSTITUTE FOR ADVANCED STUDIES, PUNE

Patron
 Prof. D. D. Borade
 Dr. U. N. Borade
 Shri. M. B. Kale
 Prof. S. S. Shinde
 Dr. S. N. Singh
 Shri. U. S. Borade
 Shri. U. B. Kale
 Shri. A. T. Surwase

Resource Person

Chairperson
 Dr. S. B. Chandanshiv
 Principal

Coordinator
 Mr. N. D. Padwal

Convener
 Dr. A. S. Jagdale

Mr. Siddharth Gangwar
 IFAS, PUNE
 Platform: Google Meet

REGISTRATION LINK: <https://forms.gle/LR3UrhX3VcdZTGaNA>
FRI, 06TH MAY, 03:00PM

COMPETITIVE EXAMS

CHEMISTRY

Effects in Organic Chemistry and Stereochemistry: Electronic effects (resonance, induction) and steric effects and their applications (acid-base property), optical isomerism with and without any stereocenters (allenes, biphenyls), conformation of acyclic substituted ethane/propane-butane and cyclic systems (mono- and di-substituted).

Reaction Mechanism and Synthetic Applications: Chemistry of reactive intermediates (carbenions, free radicals, carbenes, nitrenes, benzenes, etc.), Hoffmann-Lossan reaction, Wittig rearrangement, Simmons-Smith reaction, Horner-Tamman reaction, Michael addition reaction, Wittig reaction, Wittig reaction, Phosgenation, Favorski, Rearrangement, Diels-Alder rearrangement, Baylis-Villiger rearrangement and reactions in organic chemistry: organometallic reagents in organic chemistry (Grignard, organocuprates and organocopper), Diels-Alder, electrocyclic and sigmatropic reactions, functional conversions and structural problems using chemical reactions.

Organic Spectroscopy: Identification of functional groups by chemical tests; elementary IR, ¹H NMR spectroscopic techniques as tools for structural elucidation.

Basic Chemistry: Chemistry of alkalis, alcohols, terpenes, carbohydrates, amino acids, and nucleic acids.

Advanced Heterocyclic Chemistry: Monocyclic, bicyclic and tricyclic aromatic hydrocarbons, and heterocyclic compounds with five hetero atoms: synthesis, reactivity and properties.

*(Penicyclic)
Organic Spectroscopy*

REGISTRATION LINK: <https://forms.gle/LR3UrhX3VcdZTGaNA>
FRI, 06TH MAY, 03:00PM

Chief Guest – Mrs. Siddharth he gave lecture through PPT

Vidya Vikas Mandal Patilrud's
Shankarrao Patil Mahavidyalaya, Bhoom
 Tq. -Bhoom, Dist. -Osmanabad -413504 (Maharashtra)
Faculty of Science
National Science Day

Online Lecture

Subject:- Science & Technology - For Sustainable Development
 Date:- 28 Feb, 2022 | Time : 3:00 (PM)

Guest

Dr. V. S. Koshti
 M.Sc. NET, GATE, Ph.D. and Postdoctoral Fellow
 Assistant Professor
 Department of Chemistry, D. P. Bhosale College Koregaon, Satara, Maharashtra

President
Prin. Dr. S. B. Chandanshiv
 Shankarrao Patil Mahavidyalaya, Bhoom

Convener
Asst. Prof. Dr. N. D. Padwal
 HOD Zoology
 Shankarrao Patil Mahavidyalaya, Bhoom

Dr. A. S. Jagdale
 IQAC Coordinator
 Shankarrao Patil Mahavidyalaya, Bhoom

Convener Committee

Asst. Prof. G. S. Khandare
Asst. Prof. N. B. Kambale
Asst. Prof. R. S. Galwad

Dr. Vijaykumar Koshti is presenting

Science Day Lecture
 Vidya Vikas Mandal Patilrud's
Shankarrao Patil Mahavidyalaya, Bhoom,
 Dist. Osmanabad

SCIENCE & TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT

Presentation By
Dr. Vijaykumar S. Koshti
 Rajat Shikshan Sanstha's
D. P. BHOSALE COLLEGE, KOREGAON, SATARA
 28th February, 2022

Chief Guest – Dr. V.S.Koshti he gave lecture through PPT

SHANKARRAO PATIL MAHAVIDYALAYA BHOOM
 Tq. Bhoom, Dist. Osmanabad (M.S.)
 (Affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad)
 By-Accredited by NAAC 'B' Grade
 Science Faculty, Career Centre, IQAC, Organics, Placement Cell
 Guest Lecture

"Career opportunities in Basic Science"

Dr. Shivaji Bhosale
 Assistant Professor,
 Department of Physics,
 Sri Pandurangh College, Pune

Dr. N. D. Padwal
 HOD Zoology,
 Shankarrao Patil Mahavidyalaya,
 Bhoom.

28th February 2023 on 09:00 AM
 To join the meeting on Google Meet, Click this link: <https://meet.google.com/ufh-rtgq-jfb>

Shivaji Bhosale is presenting

Basic Science in Retail

- Supply Chain Optimization (Management)
- Consumer Behaviour Analysis
- Inventory Management
- RFID Technology: Radio frequency identification (RFID)
- Material Science: The properties of materials such as polymers, metals, and textiles analysis
- Lighting: principles of physics, including optics and color theory
- Acoustics: reflection, absorption, and diffusion of sound
- Retail Analytics: Retail analytics uses data and statistical analysis to understand customer behavior, optimize pricing strategies, and manage inventory.

Chief Guest – Dr. Shivaji Bhosale he gave lecture through PPT