



Shri. Dr. R. G. Rathod Arts & Science College Murtizapur, Dist. Akola

Programme Specific Outcomes (PSOs)

PHYSICS Upon completion of the Programme successfully, students would be able to

Sr. No.	PSOs
1	1. acquire a comprehensive knowledge and sound understanding of fundamentals of Physics
2	2. Develop laboratory skills, enabling them to take measurement in a physic laboratory and analyze the measurements to draw valid conclusions.
3	3. Be prepared to acquire a range of general skills, to solve problems, to evaluate information, to use computers productively, to communicate with society effectively and learn independently.
4	4. Develop good oral and written scientific communication skill.

CHEMISTRY

Upon completion of the Programme successfully, students would be able to

Sr. No.	PSOs
1	Understand the scope, methodology and application of modern chemistry.
2	Apply theoretical and practical concepts of instruments that are commonly used-in most chemistry field.
3	Plan and conduct scientific experiments and record the results of such experiments.
4	Get acquainted with safety of chemicals, transfer, and measurements of chemicals, preparation of solutions, and using physical properties to identify compounds and chemical reactions.
5	Describe how chemistry is useful to solve social, economic, and environmental problem and issues facing our society in energy, medicine, and health.
6	Students apply its own chemistry knowledge for synthesis of new compound which is nonhazardous to environment.
7	To develop research skill in students which is beneficial to our society.



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BOTANY

Upon completion of the Programme successfully, students would be able to

Sr. No.	PSOs
01	Identifying different resources including microbial resources helpful for human life.
02	Identifying different groups of plants (Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms & Angiosperms)
03	Use evidence based comparative botany approach to explain the evolution of organism and understand the genetic diversity.
04	Acquiring knowledge about inheritance, biochemical and metabolic activities
05	To learn about different physiological processes related to plants and plant phenomenon Acquiring knowledge about importance of environment
06	Understand adaptation, development and behavior of different forms of life
07	To understand about molecule life DNA, Gene expression & Regulation and rDNA technology.
08	To understand out basics of biotechnology and its applications in crop improvement
09	Demonstrate the experimental techniques and methods of their area of specialization in Botany



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UG & PG ZOOLOGY

Upon completion of the Programme successfully, students would be able to

Sr. No.	POs
1	Develop a deeper sense with respect to phylum Protozoa to Echinodermata relation to taxonomy, classification, body organization and general characteristics this strengthens students' capability in basic zoology.
2	Grasp various the Systematic positions from Protozoa to Echinodermata their pathogenicity and its epidemiology.
3	Describe unique characters and recognize life functions of Protozoa, Porifera, Coelenterate, Helminthes, Arthropoda, Annelida, Mollusca and Echinodermata. Improve ability and apply Knowledge of Non-chordates for its execution in Agriculture especially with the phylum Arthropoda.
4	Implement an extensive idea about economic and ecological significance of various non-chordates phylum's in human life.

UG & PG MATHEMATICS

Upon completion of the Programme successfully, students would be able to

PSOs	Upon completion of the programme successfully, students would be able to
1	Develop problem-solving skills and apply them independently to problems in pure and applied mathematics.
2	Understand advanced mathematical knowledge and skills that prepare them to pursue further studies and research.
3	Understand advanced and pure mathematical concepts and research.
4	Create knowledge, capability in formulating and analyzing mathematical models of real life applications.
5	Analyze the latest advances in applied mathematics such as numerical computations and mathematical modeling in physical sciences



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PG: CHEMISTRY

Upon completion of the Programme successfully, students would be able to

PSOs	The student graduating with the Degree M.Sc Chemistry should be able to
	observe, analyze and interpret chemical phenomena and process
	design and develop new molecules/processes with industrial and societal applications
	formulate new ideas/concepts in chemical sciences and test them
	communicate effectively the principles and practice of chemical sciences
	address issues of environment, health and development from a chemical perspective
	follow professional ethics in all spheres of activity
	function effectively as a member/leader in diverse teams/groups
	engage in independent learning in the broadest context of scientific advancement
	Deal with a variety of organic molecules especially their method of preparation
	Design new synthetic pathways for important organic compounds
	Interpret and solve the structure of organic compounds using various spectroscopic techniques
	Understand various instrumental techniques routinely used in chemical industries
	Explain the usefulness of chemistry in solving social, health, economic and environmental issues
	To get recruited in Research & Development, Production and Quality Control of various industries such as Pharmaceutical, Food, agrochemical, plastic and paint, etc.