



# ST. ALOYSIUS COLLEGE(AUTONOMOUS), JABALPUR

Reaccredited 'A+' Grade by NAAC(CGPA:3.68/4.00)

College with Potential for Excellence by UGC

DST-FIST Supported & STAR College Scheme by DBT

## Faculty of Bio Sciences

### Programme Specific Outcomes

#### B.Sc. (Major-Minor-Electives) – Botany

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO 1	Provide basic understanding in Botany for under graduate degree course and auxiliary higher education
PSO 2	Attain essential knowledge and skills for a career as botanist, mainly as Ecologist, Nursery or Green House manager, Geneticist, Paleo botanist and Farming Consultant.
PSO 3	<i>Develop skills for diverse botanical techniques, considering and incorporating local regional needs to enhance interest and relevance in the field of botany.</i>
PSO 4	Discover the diversity of plants, their evolutionary process, economic Importance, significance and relationship with Human being.
PSO 5	<i>Gain foundational skills for utilizing local plants and their components across various industries, addressing specific needs and opportunities within our region.</i>
PSO 6	Acquire basic knowledge and skill through practical botany.
PSO 7	Impart knowledge of predominant microbial diseases of plants and Humans.
PSO 8	Learn basic skills to establish startup and become self-reliant



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## B.Sc. (Major-Minor-Electives) – Industrial Microbiology

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO 1	Provide basic understanding in Microbiology for both a graduation Degree course and further higher studies.
PSO 2	Acquire fundamental knowledge and skills for a career in microbiology, particularly industrial microbiology.
PSO 3	Inculcate interest in tools and techniques used in Life Sciences.
PSO 4	Discover the unity of life through the rich diversity of microorganisms and their ecological importance.
PSO 5	Acquire basic skills for the utilization of microbes for human welfare.
PSO 6	Learn basic skills in the observation and study of nature, biological techniques, practical skills and research.
PSO 7	<i>Attain fundamental knowledge and practical skills in locally relevant applied branches, empowering individuals for self-employment opportunities tailored to our regional context.</i>
PSO8	Impart awareness about the conservation of the biosphere.

## Bachelor of Science (B.Sc. – Zoology)

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	Demonstrate a fundamental understanding of the academic field of Zoology, its different learning areas and applications.
PSO-2	<b>Learn about the important taxonomy and phylogeny to get a concrete idea of evolution of non-chordate phyla.</b>
PSO-3	<b>Exhibit Skills in areas related to their individual specialization like Assisted reproductive technique</b>
PSO-4	<b>Contributes the knowledge for Nation building.</b>
PSO-5	<b>Understand the ideas and principles of biochemistry, immunology, physiology, ethology, endocrinology, developmental biology, cell biology, genetics, and molecular biology.</b>
PSO-6	<i>Understand the environmental conservation processes and its importance, pollution control, protection of endangered species, Wildlife Management, Climatic changes and Global Management.</i>



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## Bachelor of Science (B.Sc) – Biotechnology

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	As Biotechnology is an interdisciplinary course, empower the students to acquire technological knowledge by connecting disciplinary and interdisciplinary aspects of biotechnology.
PSO-2	<i>To gain comprehensive practical expertise among biotechnology students, emphasizing applications pertinent to our regional industries and research landscape.</i>
PSO-3	To develop scientific temperament and professional ethics in the students.
PSO-4	To inculcate reading, presenting, verbal, team work and communication skills among the biotechnology students.

## Bachelor of Science (B.Sc) – Chemistry

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO 1	Disciplinary knowledge and understanding of fundamentals and principles of Chemistry and allied subjects.
PSO 2	To develop concepts of wide range of organic, inorganic, physical, analytical and spectroscopic techniques in chemistry.
PSO 3	To develop basic professional skills in specific areas in Chemistry such as spectral analysis, inorganic and organic synthesis, estimation and characterization, physical practical data evaluation and formulation of result through proper calculations and hands on experience of usage of instruments like spectrophotometer, conductivity bridge, polarimeter, CRO and others.
PSO 4	To promote team work and time management in organizing and working in a chemistry laboratory.
PSO 5	To promote experiential learning by carrying out laboratory oriented chemistry practicals such as synthesis of complexes, inorganic and organic mixture analysis, gravimetric analysis, spectroscopic techniques and others.
PSO 6	<i>Adopt the principles of the 3 R's - Reduce, Recycle, and Reuse, while advocating for the implementation of the 12 principles of Green Chemistry in laboratories, ensuring alignment with global, national, and local/regional sustainability goals and requirements.</i>
PSO 7	<i>Promote awareness and utilization of biodegradable, cost-effective, environmentally friendly, and green chemicals and processes, tailored to address local regional needs and priorities</i>
PSO 8	To minimize the use of chemicals and reduce the environmental pollution



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