



# 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 Science (Physical)

### Program Specific Outcomes

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

PSO No.	Programme Specific Outcomes
	After the successful completion of three-year B.Sc. (MME) Programme, the graduate will be able to:
PSO-1	Analyse the concepts and theories of Mathematics.
PSO-2	<i>Analyze real-world issues and formulate mathematical equations to derive viable solutions, considering and incorporating global, national, and local/regional contexts and requirements</i>
PSO-3	Develop problem solving skills and scientific reasoning by learning skills.
PSO-4	Develop written and oral communication skills in communicating with diverse Stakeholders.
PSO-5	<i>Create and collaborate in emergent innovative mathematical solutions for glocal industry and academia.</i>
PSO-6	Crack various competitive exams for higher studies and employment

#### Bachelor of Science (B.Sc. Physics)

PSO No.	Programme Specific Outcomes
	Upon completion of these courses the student would be able to:
PSO-1	Analyse the concepts and theories of Physics, Computer Science and Mathematics
PSO-2	Analyze real world problems and develop mathematical equations and prepare computer programs to find acceptable solutions.
PSO-3	Develop problem solving skills and scientific reasoning by learning laboratory skills
PSO-4	Develop written and oral communication skills in communicating with diverse Stakeholders.
PSO-5	<i>Create and collaborate in emergent physical, mathematical and computing Technologies leading to innovative solutions for global industry and academia.</i>
PSO-6	Crack various competitive exams for higher studies and employment.



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

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	Analyze the concepts and theories of Computer Science
PSO-2	<i>Analyze real world problems, develop suitable computer programs to find acceptable solutions Please rewrite with Global National local regional needs</i>
PSO-3	Develop problem solving skills and scientific reasoning by learning laboratory skills
PSO-4	Create and collaborate in emergent technologies in computational sciences, leading to innovative solutions for industry and academia
PSO-5	Communicate with diverse stakeholders by acquiring written and oral communication skills

## Bachelor of Computer Application (B.C.A.)

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	Students will acquire a deep understanding of computer architecture, data structures, algorithms, and programming, enabling them to effectively solve computational and network challenges.
PSO-2	<i>Develop problem-solving abilities and scientific reasoning through hands-on laboratory experiences Please rewrite with Global National local regional needs</i>
PSO-3	Attain proficiency in fundamental computer networking principles, including network configuration, protocols, and security protocols.
PSO-4	Demonstrate comprehension of database concepts, proficiently design and manage databases, and execute SQL queries for data retrieval and manipulation.
PSO-5	Gain familiarity with various software development tools, integrated development environments, and version control systems to facilitate efficient software development processes

## 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.



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<b>PSO.4</b>	To promote team work and time management in organizing and working in a chemistry laboratory.
<b>PSO.5</b>	To promote experiential learning by carrying out laboratory oriented chemistry practical such as synthesis of complexes, inorganic and organic mixture analysis, gravimetric analysis, spectroscopic techniques and others.
<b>PSO.6</b>	<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>
<b>PSO.7</b>	<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>
<b>PSO.8</b>	To minimize the use of chemicals and reduce the environmental pollution caused by the department.

