

Program Outcome of the Department of Allied & Applied Science:

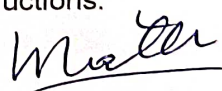
The following is a brief specification of the Program Outcomes (knowledge, skills, values and attitude) that highlight important areas in which the students are expected to gain proficiency at the end of the tenure of their undergraduate program under the aegis of Allied & Applied Science Department of the University of Patanjali running by the blessings of Paramapujya Yogguru Ramdev Ji Maharaj and Ayurvedashiromani Acharya Balkrishna Ji.

PO-1: Knowledge: Learners are encouraged to apply the knowledge of biology and science fundamentals to various solutions of complex problems. A student is exposed to a wide range of topics in Biology and is given intensive teaching in each of the courses that have laboratory related work. The learner is encouraged to use various biological methods (analytical and computational) and experimental methods as an application to the acquired concepts and principles that help in studying various other branches of sciences. At the end of the program, students are able to gain knowledge in the key areas in the subjects offered.

PO-2: Problem Analyses: Well equipped with an understanding of the analytical methods involved, they are in a position to interpret and analyze results so obtained from experiments and draw suitable conclusions against their supported data acquired. At the end of the program, students will be able to identify, formulate and analyze scientific problems and reach concrete solutions using various principles of biology.

PO-3: Designing Solutions: Having acquired knowledge of subjects, students are trained to think out of the box, design and conduct an experiment or a series of experiments that demonstrate their understanding of the methods and processes involved. This in turn helps in the learner; develop a holistic approach from real time solutions. As such, at the end of the program, learners will be able to design solutions for complex problems and design a process/ processes that can meet specific needs. (Attainment of this is through projects and dissertations at the final year).

PO-4: Communication Development: The medium of instruction being English, proficiency in the subject through English is one of the primary objectives of the science program. In order to improve the writing and oral skills of learners, the program caters to ensuring that learners become effective, clear communicators in written and oral work and are capable of explaining complex issues in accessible terms. With English language being the common mode of communication worldwide, all learners under the programme are encouraged to participate in courses designed to equip students with English-language proficiency through Grammar, Written and Spoken English to enable a holistic enhancement of communication. As such, at the end of the program, learners will be capable of oral and written communication, and will prove that they can think critically and work independently. Learners will be able to communicate effectively on scientific issues with the scientific community and society at large in writing effective reports and designing documentation, make effective presentations and give and receive instructions.


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PO-5: Employability: With our learners long-term professional pursuits being quite varied, many are drawn to careers that require scientific skills or technical expertise or strong quantitative reasoning abilities. Keeping this in mind, the institution apprises students of various employment opportunities that are available in areas of their choice through the placement cell. To equip these learners with knowledge other than that of the subject such as skills required helping them qualify for jobs, all the science subjects offer skill enhancement courses and value added courses so that learners have a better edge over their counterparts. We also send our students to Padartha (Patanjali Food & Herbal Park) for intensive internship training in summer vacations. As such, at the end of the program students will be able to increase their employability through subject knowledge and additional hands on practical skills.

PO-6: Environment and Sustainability: 'Environmental sustainability' has become the watchword of the 21st century. An increased engagement with environment-related concerns is appearing tangibly on global fronts; students cannot and should not remain quarantined from this massive development. Through classroom-discussions and research projects, this program facilitates active dialogues with factors which influence human-ecology interactions. As such, at the end of this program students will be able to identify and analyze socio-political, cultural and economic problems which act as deterrents to environmental sustainability and provide creative solutions.

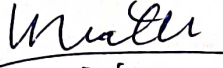
PO-7: Soft-Skill Development: Apart from the attainment of knowledge and hands-on skills several soft skill programs are organized for learners through various agencies. As such, at the end of this program, students will be able to have the soft-skills required in positively enhancing their academic, professional and personal pursuits towards self and societal advancement.

PO-8: Life-long learning: With the pursuit of knowledge for either personal or professional reasons, learners are also encouraged to volunteer and be self-motivated that not only enhances society values, active participation and personality development, but also enhances self-sustainability, competitiveness and employability. As such, learners will be able to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in every broad context of technological changes

Program Specific Outcomes of B.Sc. Honours (Biological Science)

PSO1. Students enrolled in B.Sc. Honours Program in Biological Science of the University of Patanjali, study and acquire complete knowledge of disciplinary and allied areas of biological sciences.

PSO2. The Learning Outcomes-based Curriculum Framework is designed to demarcate a skeletal structure within which the program can be developed to suit the need of the hour, in keeping with the emergence of new areas of life sciences. The framework is designed to allow for flexibility in program improvement and course content development, while at the same time maintaining a basic uniformity in structure in comparison with other universities across the country.


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PSO3. The B.Sc. Honours program in Biological Science covers a wide range of basic and applied aspects of botany, zoology, physics and chemistry courses as well as courses of interdisciplinary nature. The core courses that are a part of the program are designed to build sound knowledge in the student, and furthermore, acquaints the students with the applied aspects of this fascinating discipline as well. The student is thus equipped to pursue higher studies in an institution of her/his choice, and to apply the skills learnt in the program to solving practical biological problems.

PSO4. The program offers a wide range of elective courses to the student. These include skill and ability enhancement courses that prepare the student for an eventual job assignment. Yoga and Physical education is included as value added courses because Paramapujaya Swami Ramdev Ji and Acharya Balkrishna Ji are the soul of the University and the Applied & Allied Science Department is running under their guidance. So at the end of graduation, they have expertise which provide them competitive advantage in pursuing higher studies from India and abroad or seek jobs in academia, research or industries.

Program Specific Outcomes of B.Sc. (Microbiology)

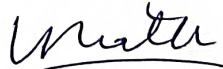
PSO1. Students of the B.Sc. Microbiology program will learn to use scientific logic as they explore a wide range of contemporary subjects spanning from basic microbiology such as Bacteriology, Virology, Biochemistry, Microbial Physiology, Cell Biology, Molecular Biology, Genetics, Immunology, to Systems Biology, in addition to becoming aware of the applied aspects of microbiology such as Industrial Microbiology, Environmental Microbiology etc to name a few.

PSO2. Students will appreciate the biological diversity of microbial forms and be able to describe and explain the processes used by microorganisms for their survival, replication and interaction with their environment, hosts, and host populations. They will become aware of the important role microorganisms play in maintenance of a clean and healthy environment. They will learn of the role of microorganisms in plant, animal and human health and disease.

PSO3. Students will acquire and demonstrate proficiency in good laboratory practices in a microbiological laboratory and be able to explain the theoretical basis and practical skills of the tools/technologies commonly used to study this field.

PSO4. Students will gain knowledge of various biotechnological applications of microorganisms and will learn of industrially important substances produced by microorganisms. They will gain familiarity with the unique role of microbes in genetic modification technologies.

PSO5. Students will become familiar with scientific methodology, hypothesis generation and testing, design and execution of experiments. Students will develop the ability to think critically and to read and analyze scientific literature.


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Program Specific Outcomes of M.Sc. (Biochemistry)

PSO1. The M.Sc. Biochemistry program offered by the University of Patanjali is a Two Years full time program. In order to make students more career oriented and nurturing their scientific temperaments students will get exposure to the depth of understanding of various dimensions of Biochemistry during these two years of study.

PSO2. The teaching and practical training provided will give students the breadth and depth of scientific knowledge.

PSO3. A strong understanding of fundamentals of biochemical process at an advanced level.

PSO4. Better understanding of major thrust areas of the discipline

PSO5. Knowhow on current developments in the biochemical research

PSO6. Capacity to identify, analyze and design safe experimental process to provide efficient solutions by fair interpretation of data.

Program Specific Outcomes of PGDYA

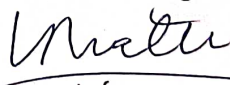
PSO1. At the end of the course the students will be able to understand traditional Indian Yogic systems; the philosophy of the Yoga along with the ayurveda

PSO2. The students will be able to understand the principles of Hatha Yoga.

PSO3. The program will develop basic understanding of the human anatomy, the human physiology and a deeper understanding of the human systems along with Rasa, Dosa, Dhatu, etc.

PSO4. The students will be introduced to the essential elements of a yogic life style, the concept of health and disease and their remedies through yoga practice. They will also learn the overview of the five sheath human existence. They will learn yoga in Smiritis and puranas and how it was practiced in ancient, medieval and presently popularized by Swami RamdevJi.

PSO5. The students will be introduced to regular and practice (sadhana) of yoga practices along with Yajna that would make them disciplined and knowledgeable Yoga teachers.


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