

B.Sc. First Year NEP Syllabus Zoology (Semester I & II) Outcomes (POs),

Programme Specific Outcomes (PSOs),

1. Programme Educational Objectives (PEOs)

The syllabus also specifies the following **Programme Educational Objectives**:

PEO Programme Educational Objective

- PEO1 Mastery of Discipline-Specific Knowledge:** Graduates will demonstrate a deep understanding of fundamental principles, theories, and methodologies in their chosen scientific discipline, enabling them to analyze complex problems, propose innovative solutions, and contribute to advancements in their field.
- PEO2 Interdisciplinary Proficiency:** Graduates will possess the ability to integrate knowledge and skills from multiple scientific disciplines, fostering a holistic approach to problem-solving and innovation.
- PEO3 Critical Thinking and Analytical Skills:** Graduates will develop strong critical thinking abilities, enabling them to evaluate information rigorously, analyze data effectively, and make informed decisions based on evidence.
- PEO4 Leadership and Innovation:** Graduates will demonstrate leadership qualities and an entrepreneurial mindset, capable of initiating and driving positive change in organizations and communities.
- PEO5 Global Citizenship and Cultural Sensitivity:** Graduates will possess a global perspective and cultural sensitivity, recognizing the interconnectedness of diverse communities and the importance of collaboration across borders.
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2. Programme Outcomes (POs)

The B.Sc. programme specifies **seven Programme Outcomes** aligned with NEP-2020.

PO	Programme Outcome
PO1 – Citizenship and Society	Apply broad understanding of ethical and professional skill in science subjects in the context of global, economic, environmental and societal realities while encompassing relevant contemporary issues.
PO2 – Environment and Sustainability	Apply broad understanding of impact of science subjects in a global, economic, environmental and societal context and demonstrate knowledge of, and need for, sustainable development.
PO3 – Ethics	Apply ability to develop sustainable practical solutions for science subject-related problems within positive professional and ethical boundaries.
PO4 – Individual and Teamwork	Function effectively as a leader as well as a team member in diverse/multidisciplinary environments.
PO5 – Communication	Communicate effectively on complex science-subject-related activities with the scientific community in particular and with society at large; comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO6 – Project Management and Finance	Demonstrate knowledge and understanding of the first principles of science and apply these to one's own work as a member and leader in a team, to complete projects in any environment.
PO7 – Life-long Learning	Recognize the need for lifelong learning and have the ability to engage in independent and life-long learning in the broadest context of technological change.

3. Programme Specific Outcomes (PSOs) – Zoology

The Zoology programme specifies **seven PSOs**.

PSO	Programme Specific Outcome
PSO1 – Domain Knowledge	Graduates will demonstrate and apply deep knowledge of fundamental and advanced areas of subject zoology with a strong understanding of basic classical and modern concepts of zoology in higher education.
PSO2 – Problem Analysis	Identify the problems related to subject at varied complexity and develop strong, analytical and abilities for substantiated solution and conclusion effectively.
PSO3 – Design & Development of Solutions	Graduates will possess the capability to create and execute research ideas. They will have fundamental and scientific approach towards Zoology.
PSO4 – Conduct Investigation of Complex Problems	Graduates will be able to establish knowledge and methods to design experiments, analyze resulting data and interpret the same to provide valid conclusions. Importance is given to practical learning and presentation skill of students. The lab courses and skill provide students to their employability.
PSO5 – Modern Tools and Techniques	Graduates will create appropriate techniques and cultivate skills in life science for agricultural, animal husbandry and relevant fields with emphasis on branches like biochemistry, economic zoology, behavioral biology, evolutionary biology, molecular biology, genetic engineering, bioinformatics etc.
PSO6 – Communication Skills	Graduates will effectively communicate scientific ideas through presentations, scientific papers, publications, facilitating collaboration and dissemination of knowledge within the scientific community.
PSO7 – Research-related Skill	Ability to pursue advanced studies and research in zoology and provide opportunity for the mobility of the student both within and across the world.

1. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO	Programme Educational Objective
PEO1 – Mastery of Discipline-Specific Knowledge	Graduates will demonstrate a deep understanding of fundamental principles, theories and methodologies in their scientific discipline, enabling them to analyze complex problems, propose innovative solutions and contribute to advancements in their field.
PEO2 – Interdisciplinary Proficiency	Graduates will possess the ability to integrate knowledge and skills from multiple scientific disciplines, fostering a holistic approach to problem-solving and innovation.
PEO3 – Critical Thinking and Analytical Skills	Graduates will develop strong critical-thinking abilities, enabling them to evaluate information rigorously, analyze data effectively and make informed decisions based on evidence.
PEO4 – Leadership and Innovation	Graduates will demonstrate leadership qualities and an entrepreneurial mindset, capable of initiating and driving positive change in organizations and communities.
PEO5 – Global Citizenship and Cultural Sensitivity	Graduates will possess a global perspective and cultural sensitivity, recognizing the interconnectedness of diverse communities and the importance of collaboration across borders.

2. PROGRAMME OUTCOMES (POs)

PO	Programme Outcome
PO1 – Citizenship and Society	Apply broad understanding of ethical and professional skill in sciences respecting global economic, environmental and societal realities while engaging relevant contemporary issues.

PO	Programme Outcome
PO2 – Environment and Sustainability	Apply broad understanding of the impact of science subjects in a global, economic, environmental and societal context and demonstrate knowledge of sustainable development.
PO3 – Ethics	Apply ability to develop sustainable practical solutions for science-related problems with positive professional and ethical outcomes.
PO4 – Individual and Team Work	Function effectively as a leader as well as a team member in diverse/multidisciplinary environments.
PO5 – Communication	Communicate effectively on complex science-related activities with the scientific community and articulate and present ideas through oral, written and visual methods.
PO6 – Project Management and Finance	Demonstrate knowledge and understanding of first principles of science and apply them as a member and leader in a team and in any environment.
PO7 – Life-long Learning	Recognize the need for lifelong learning and develop the ability to engage in independent and lifelong learning in the broadest context of technological change.
