



**Manipal University Jaipur**  
**Faculty of Science, Technology and Architecture**  
**Department of Biosciences**  
**B.Sc. Biotechnology (Hons.)**

(2025-26)

**Program Outcomes and Program Specific Outcomes**

**Program Outcomes (POs)**

- [PO 1]. **Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
- [PO 2]. **Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology....
- [PO 3]. **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- [PO 4]. **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- [PO 5]. **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- [PO 6]. **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development
- [PO 7]. **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Program Specific Outcomes (PSOs)**

- [PSO 1]. Develop a comprehensive understanding of fundamental principles of biotechnology, including molecular biology, genetics, biochemistry, and microbiology, and apply knowledge of biotechnology techniques to solve real-world problems in agriculture, medicine, industry, and the environment.
- [PSO 2]. Develop strong laboratory skills in techniques such as molecular cloning, PCR, gel electrophoresis, cell culture, and bioinformatics.
- [PSO 3]. Acquire the skills necessary to start and manage a biotechnology-based enterprise, including business planning, intellectual property, and regulatory compliance.