

(A State University Estb. by Govt. of Punjab vide Punjab Act No. 5 of 2015 and Approved u/s 2(f) & 12 (B) of UGC; Member AIU) Bathinda-151001 (Punjab), India

Department: Department of Pharmaceutical Sciences and Technology

Program: <u>B. Pharm. Degree Program</u>

### **PROGRAM OUTCOMES (POs)**

- 1. **Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
- 2. **Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- 3. **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
- 4. **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations
- 5. Leadership skills: Understand and consider the human reaction to change, motivation issues, leadership and team- building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
- 6. **Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
- 7. **Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behaviour that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.

- 8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the Pharmacypractice.
- 9. **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clearinstructions.
- 10. **The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
- 11. **Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal andenvironmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self- assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

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Department: Department of Pharmaceutical Sciences and Technology

Program: <u>B. Pharm. Degree Program</u>

### **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

- 1. To provide a comprehensive pharmaceutical education leading to B. Pharm. Degree.
- 2. To integrate pharmacy knowledge and skills with state of art infrastructure so as to increase inclination for higher studies and research.
- 3. To nurture pharmacists to tackle challenges of pharmacy profession and contribute effectively in the social health care system.
- 4. To inculcate leadership and entrepreneurship capabilities in future pharmacists.

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Department: Department of Pharmaceutical Sciences and Technology

Program: M. Pharm. Degree Program (Pharmaceutics)

# **PROGRAM OUTCOMES (POs)**

1. Pharmaceutical Manufacturing

- 2. Pharmaceutical Research & Development
- 3. Pharmacological research including preclinical & clinical studies.
- 4. Herbal Drug Research
- 5. Pharmaceutical & Herbal Drug Analysis
- 6. Clinical Toxicology & Toxicological Analysis



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Department: Department of Pharmaceutical Sciences and Technology

Program: M. Pharm. Degree Program (Pharmaceutics)

## **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

- 1. To provide a comprehensive and advanced pharmaceutical education leading to M. Pharm. Degree.
- 2. To integrate pharmacy knowledge and skills with pharmaceutical research.
- 3. To develop pharmacists to contribute effectively in the social health care system.
- 4. To provide hands on training through state of art infrastructure to inculcate research aptitude in pharmaceutical sciences.
- 5. To inculcate leadership and entrepreneurship capabilities in future pharmacy professionals.



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Program: M. Pharm. Degree Program (Pharmaceutics)

### PROGRAM SPECIFIC OUTCOMES (PSOs)

- 1. Apply the principles of drug delivery system in the development of eco-friendly, efficacious dosage forms.
- 2. Develop an ability to undertake multidisciplinary tasks in the pharmaceutical quality system.
- 3. Analyze, criticize, organize, improvise and manage documents, data and information related to pharmaceutical production process.
- 4. Imbibe ethical practices and moral values in personal and professional endeavors.
- 5. Execute team-based research to implement innovative solutions in the area of formulation, quality assurance and technology transfer.
- 6. Apply problem-based learning approach and analytical thinking in academic and professional life.
- 7. Validate the knowledge and skills gained through education to gain recognition in Pharmaceutical society and related field.
- 8. Set-up pharmaceutical production unit to design and formulate pharmaceutical dosage forms.



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### PROGRAM SPECIFIC OUTCOMES (PSOs)

- 1. Relate the acquired scientific information's and principles of pharmacokinetics and pharmacodynamics in drug discovery process.
- 2. Interpret data of pharmaceutical experiments in drug discovery as per the needs of pharmaceutical industries.
- 3. Translate the high-level of understanding of drug action into key stages in preclinical and clinical research studies.
- 4. Apply skills to do specialized research in the core and applied areas of pharmaceutical sciences.
- 5. Evaluate current drug information in the delivery of pharmaceutical care and assure in regard to drug usage and their adverse effects
- 6. Demonstrate knowledge of professional and ethical responsibilities in clinical and nonclinical laboratory as required by regulatory bodies.
- 7. Develop an ability to visualize and work on multidisciplinary tasks in the area pharmaceutical and its allied field.
- 8. Appraise pharmacological model for investigation through logics and problem to solving ability.