

## **THE PROGRAM OUTCOMES**

### **Pharmacy**

1. Possess the ability to acquire, manage and use sound subject knowledge for problem solving, patient-specific, population-specific, evidence-based care to promote safe and optimal pharmacotherapy outcomes.
2. Identify the rules and regulations involved in the drug discovery and development, distribution, sale and safe use of medicines and participate in the development of drug use policy.
3. Develop critical thinking skills, including investigation, application, analysis, creativity, synthesis and evaluation of information, data and documents related to drug, poison, clinical investigations, pharmaceutical care and practices.

### **Program specific outcomes (PSOs)**

#### **B.Pharmacy**

1. The Student has in depth knowledge of human body, diseases, drug molecules along with excipients, natural drug resources, chemistry involved in API including synthesis of commonly used drugs, effect of drug on human body, toxicity and impurity profile, ADME studies of drugs, dosage form studies including novel approaches, designing and development of formulation and pilot plant scale-up studies, stability studies and analysis.
2. The student is also trained in drug distribution system, patient counseling, industrial laws and regulatory agencies conduct in Pharma education and Pharma industries at national and international level.

#### **Pharm.D**

1. The Student has in depth knowledge of human body, diseases, drug molecules along with excipients, natural drug resources, chemistry involved in API including synthesis of commonly used drugs, effect of drug on human body, toxicity and impurity profile, ADME

studies of drugs, dosage form studies including novel approaches, designing and development of formulation and pilot plant scale-up studies, stability studies, analysis.

2. Acquire excellent interpersonal oral communication and writing skills. They will be able to demonstrate knowledge and proficiency with current audio-visual presentation technologies and develop an ability to communicate scientific knowledge in non-expert/lay term by adopting various modes of scientific communications (e.g., abstract, manuscripts, project reports, oral and poster presentations etc.,).

## **M.Pharmacy**

### **Pharmaceutics**

After acquiring degree in M.Pharm (Pharmaceutics) students will be able to meet the needs of industries in various department viz R&D, quality assurance, quality control and regulatory affairs, also students are eligible to work in clinical research organization. Students can pursue their career in academics as well as in research for carrying out their PhD Work.

### **Pharmacology**

Graduates will acquire adequate hands on training of the practical aspects of handling the experimental animals for their research works. They will be able to statistically analyse the data from any experimental research work. They will be able to correlate the diseases with the medications prescribed for it. Graduates can outline and critically appraise the principal steps in drug discovery and also explain the rationale for the complete development plan (pharmaceutical, pre-clinical and clinical) according to the proposed therapeutic indication. They can relate monitoring of drug safety and the role of pathophysiology and molecular biology-based pharmacology in drug development. They will be able to describe the principal steps in discovering, modifying, assessing and patenting new chemical and biological compounds (including advanced therapies) according to their therapeutic indication. They will have a sound knowledge on toxicological studies on animals and also about the basic principles of toxicology; the mechanisms by which excess exposure to certain drugs, toxins, chemicals, heavy metals and poisons can lead to adverse toxicological effects; and the basic principles of clinically managing

the poisoned patient and their antidotes. They would have acquired knowledge about the various international and national guidelines on GLP, CPCSEA, OECD, FDA, ICH etc

### **Pharmaceutical Analysis**

After completion of course students are expected to apply various analytical techniques to drug analysis and control eg. Spectroscopic, chromatographic etc, Assess stability of pharmaceutical products, active ingredients and excipients and compounds like preservative, taste and smell improving agents. Take special care and attention for preparation of drug containing active ingredients with narrow safety margin

### **Pharmaceutical Chemistry**

After completing his/her Master's degree in Pharmaceutical Chemistry they have scope in research and development, contact research organizations, production, and academics. The students can work in drug discovery, process chemistry, library synthesis, basic research, product management. Student has opening in multinational companies, production chemist and fundamental research.

### **Regulatory Affairs**

This course is designed to impart fundamental knowledge on Various good regulatory practices viz cGMP, GLP, GALP and GDP for pharmaceuticals, cosmetics, medical devices and so on Documentation and general principles involved in regulatory writing and submission to agencies. The regulations and guidelines governing the conduct of clinical trial in India, US and EU. It also equips the students with fundamental knowledge on Basic regulatory requirements in India of Drugs and Cosmetics for manufacture, import and registration, sale and marketing authorization etc. Details on the regulatory requirements for biological, vaccines, blood products, medical devices, nutraceuticals, food supplements in countries like US, EU and Asian countries.

### **Pharmacognosy**

The students are able to learn and understand the advances in field of cultivation, extraction and isolation of lead molecules, study of nutraceuticals and their health benefits. The students will

be able to undertake the phytochemical fingerprinting and structural elucidation of phytoconstituents. Also the students gain knowledge on regulatory and quality policy for the trade of herbals and drugs of natural origin. It focuses upon clinical research of traditional medicines, quality assurance and challenges in monitoring the safety of herbal medicines

### **Pharmacy Practice**

This program will demonstrate the knowledge and ability to use principles of therapeutics, quality of life improvement, communication, economics, health behaviors, social and administrative sciences, health policy and legal issues in practice of pharmacy. After completing his/her master's in pharmacy practice they have scope in Contract Research Organization as Clinical Research coordinator/associate for conducting clinical trials in various disease conditions and also they have scope in Pharmacovigilance, Medical Writing, Medical Coding and Bioequivalence studies.