

Pharmaceutics department was started in 2023 and it encompasses basic and applied investigations in Preformulation, Formulation, Pharmaceutical biotechnology and Drug delivery. It is a place where commitment to excellence in academia, research and development is demonstrated through the productivity and success of our faculty and students, it also offers training for research students seeking a PhD degree. We offer a training environment that includes the latest formulation laboratory instrumentation and technologies supervised by experienced teachers and dedicated staff. The department is equipped with the state of art laboratories, ultra-modern facilities, and competent staff.

In addition to teaching, Nanotechnology is an emerging paradigm that is interdisciplinary in nature and expected to have great influence in a wide-range of products with far-reaching implications. In the area of pharmaceuticals, nanotechnology has the ability of enabling the formulation of new drug delivery systems with minimal side-effects; act as delivery vehicle for poorly soluble drug molecules and aiding in early diagnosis of disease state.

- The course is designed to integrate the teaching, learning and understanding of pharmaceutical science in the context of pharmaceutics.
- It is designed to cater to the ever-increasing demands of the pharmaceutical industry, research organizations, and academic institutions with special emphasis in the area of formulation development
- The course content is methodically structured and designed to prepare the students for a career in the pharmaceutical industry and to continue research activities in various pharma avenues including higher studies.
- Pharmaceutics is a science of dosage forms & is the study of relationships between drug formulation, delivery, disposition, and clinical response.
- The program is designed to provide the core principles in pharmaceutics along with the necessary skills in the area of nanotechnology to train the students in this new field
- Conducts research and teaching precisely on medicine that is targeted towards improving patient therapy by maximising the efficiency of the drug and while minimising toxicity of the drug.
- The program provides various opportunities for the students to participate in R & D projects and to develop the research skills.
- To determine the exposure and pharmacological response to the drugs

- We focus on genetic, physiological, environment, and disease processes, that can alter metabolism, absorption, transport, and distribution of drugs
- To deliver the right medicine to the right patient at the right time.
- The vast yet potential syllabus empowers students to excel and provides a lot of scope in getting the placement.
- The alumni of both programs are placed in reputed pharma companies, research laboratories, and academic institutions worldwide
- Campus recruitments are held annually and there is almost 100% placement every year for both the branches.

### Pharmaceutical Industries

There are different areas such as production & manufacturing, validation aspects, quality assurance & control, technology transfer, process development, formulation development, generic product development, drug metabolism, and pharmacokinetics (DMPK), intellectual property rights, pharmacovigilance, scientific writing, and regulatory affairs where candidates of both the disciplines are getting recruited.

### Entrepreneurship and Consultancy

Postgraduates are also trained and encouraged to build their career as entrepreneurs to start a pharmaceutical company or as consultants to pharmaceutical companies/

### Higher Studies and Academics

One can also go for higher degrees in research as well as for teaching jobs in academic institutions.

## Core Competencies

- Multi-particulate Drug Delivery Systems
- Sustained Release Dosage Forms
- Immediate-release dosage forms
- Ocular Drug Delivery Systems
- Transdermal Drug Delivery Systems (including iontophoresis and sonophoresis)
- Implants
- Semisolid dosage forms
- Dental preparations
- Microspheres
- Nanopharmaceuticals (nanoparticles, liposomes, solid lipid nanoparticles, dendrimers, etc).