# Raghavendra Institute of Pharmaceutical Education and Research (Autonomous)

## Accorded Under 2(F) & 12(B) Of UGC, NBA & NAAC "B" Accredited Anantapuramu, Andhra Pradesh-515721

### M. Pharmacy – Department of Pharmaceutics

**Quality policy**

Committed to diversifying pharmaceutical technology by incorporating newer evolving techniques to the need of public health through the interface of pharmaceutical industry and academic collaboration.

**Programme Outcomes**

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 endeavours.
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
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 form.

**Course outcomes:**

**Name of the course:** Modern pharmaceutical analytical techniques (MPH 101T)
1. Chemicals and Excipients
2. The analysis of various drugs in single and combination dosage forms
3. Theoretical and practical skills of the instruments

**Name of the course:** Drug delivery systems (MPH 102T)
1. The various approaches for development of novel drug delivery systems.

2. The criteria for selection of drugs and polymers for the development of delivering system.
3. The formulation and evaluation of Novel drug delivery systems.

**Name of the course:** Modern pharmaceutics (MPH 103T)
1. The elements of preformulation studies.
2. The Active Pharmaceutical Ingredients and Generic drug Product development
3. Industrial Management and GMP Considerations.
4. Optimization Techniques & Pilot Plant Scale Up Techniques
5. Stability Testing, sterilization process & packaging of dosage forms

**Name of the course:** Regulatory affairs (MPH 104T)
1. The Concepts of innovator and generic drugs, drug development process
2. The Regulatory guidance's and guidelines for filing and approval process
3. Preparation of Dossiers and their submission to regulatory agencies in different countries
4. Post approval regulatory requirements for actives and drug products
5. Submission of global documents in CTD/ eCTD formats
6. Clinical trials requirements for approvals for conducting clinical trials
7. Pharmacovigilence and process of monitoring in clinical trials.

**Name of the course:** Molecular pharmaceutics (nano technology & targeted DDS) (NTDS) (MPH 201T)
1. The various approaches for development of novel drug delivery systems.
2. The criteria for selection of drugs and polymers for the development of NTDS
3. The formulation and evaluation of novel drug delivery systems.

**Name of the course:** Advanced biopharmaceutics & pharmacokinetics (MPH 202T)
1. The basic concepts in biopharmaceutics and pharmacokinetics.
2. The use raw data and derive the pharmacokinetic models and parameters the best describe the process of drug absorption, distribution, metabolism and elimination.
3. The critical evaluation of biopharmaceutic studies involving drug product equivalency.
4. The design and evaluation of dosage regimens of the drugs using pharmacokinetic and biopharmaceutic parameters.
5. The potential clinical pharmacokinetic problems and application of basics of pharmacokinetic

**Name of the course:** Computer aided drug development (MPH 203T)
1. History of Computers in Pharmaceutical Research and Development
2. Computational Modeling of Drug Disposition
3. Computers in Preclinical Development
4. Optimization Techniques in Pharmaceutical Formulation
5. Computers in Market Analysis
6. Computers in Clinical Development

7. Artificial Intelligence (AI) and Robotics
8. Computational fluid dynamics(CFD)

**Name of the course:** Cosmetics and cosmeceuticals (MPH 204T)
1. Key ingredients used in cosmetics and cosmeceuticals.
2. Key building blocks for various formulations.
3. Current technologies in the market
4. Various key ingredients and basic science to develop cosmetics and cosmeceuticals
5. Scientific knowledge to develop cosmetics and cosmeceuticals with desired Safety, stability, and efficacy.