COURSE OUTCOME STATEMENT

Course Outcomes: Course Outcomes are narrower statements that describe what students are expected to know, and be able to do at the end of each course. These relate to the skills, knowledge, and behaviour that students acquire in their enrolment through the course.

M.PHARM (PHARMACEUTICS)	
Course Outcome Code	**Course Outcome Statements**
MPH101T.1	The analysis of various drugs in single and combination dosage forms. Theoretical and Practical skills of the instrument
MPH101T.2	Apply the Skill in developing the new analytical methods for the validation Procedure
MPH101T.3	Learn the principle, instrumentation and applications of electrophoresis and X ray crystallography
MPH101T.4	Perceive the fundamentals of immunological assays.
MPH102T.1	Categorize drugs & Polymers in various novel drug delivery systems based on their physico-chemical and biological approaches
MPH102T.2	Develop the concept of telepharmacy, 3D printing, bioelectronic medicine and personalized medicine
MPH102T.3	Analyze the principals and fundamentals of rate-controlled drug delivery systems
MPH102T.4	Apply knowledge of protein drugs and biological products such as vaccines in their development and evaluation
MPH103T.1	Perceive the key elements of preformulation studies
MPH103T.2	Explain various optimization techniques in formulation development
MPH103T.3	Analyze various types of validation protocols with effective application
MPH103T.4	Justify current good manufacturing practices in pharma industries
MPH104T.1	Learn the stages of drug development process
MPH104T.2	Understand new drug approval processes
MPH104T.3	Perceive electronic common technical documentation
MPH104T.4	Discussion on pharmacivigilance aspects
MPH105PA.1	Analysis by UV Visible Spectrophotometer
MPH105PA.2	Estimation of drugs by High performance liquid chromatography
MPH105PA.3	Analysis of drugs by gas chromatography

MPH105PA.4	Estimation of drugs employing flame photometry
MPH105PB.1	Explain the effect of particle size on dissolution rate
MPH105PB.2	Explain the effect of binders on dissolution rate of tablets
MPH105PB.3	Compare the dissolution rate of various brands of sustained release marketed tablets
MPH105PB.4	Formulate and evaluate sustained release matrix tablets
MPH106S.1	Analyze the impact of pharmaceutical sciences and technology on improving quality of life.
MPH106S.2	Apply critical thinking skills to complex pharmaceutical problems.
MPH106S.3	Utilize innovative and creative thinking methods to address pharmaceutical issues from unique and unconventional perspectives.
MPH106S.4	Demonstrate research skills by conducting literature surveys and experiments.
MPH201T.1	Understand various approaches for development of novel drug delivery systems
MPH201T.2	Learn about criteria for selection of drugs in novel drug delivery systems
MPH201T.3	Studies relevant to formulation of targeted drug delivery systems
MPH201T.4	Understand nucleic acid based therapeutic delivery system
MPH202T.1	Description and assessment of drug absorption processes
MPH202T.2	Justify the developed pharmacokinetic model based on obtained data
MPH202T.3	Critical evaluation of bioavailability and bioequivalence studies
MPH202T.4	Development of dosage regimens using pharmacokinetic knowledge
MPH203T.1	Understand the history and applications of computers in pharmaceutical research and development.
MPH203T.2	Construct statistical modelling principles & optimization using computer applications.
MPH203T.3	Develop the basic computational modelling principles for drug disposition.
MPH203T.4	Interpret computer simulation in pharmacokinetics and pharmacodynamics.
MPH204T.1	Assess drug excipient compatibility studies
MPH204T.2	Justify the usage of additives in different formulations
MPH204T.3	Estimate drug solubility by phase solubility analysis
MPH204T.4	Explain various theories of dissolution
MPH205PA.1	Interpret the effect of different factors on microencapsulation process
MPH205PA.2	Formulate and evaluate sodium alginate beads
MPH205PA.3	Design and formulate liposomes
MPH205PA.4	Improve the dissolution rate of a poorly soluble drug by solid dispersion technique
MPH205PB.1	Applications of design expert software
MPH205PB.2	Understand quality by design concept
MPH205PB.3	Describe computer simulations in pharmacokinetics

MPH205PB.4	Formulation and evaluation of shampoo
MPH206S.1	Analyze the impact of pharmaceutical sciences and technology on improving quality of life.
MPH206S.2	Apply critical thinking skills to complex pharmaceutical problems.
MPH206S.3	Utilize innovative and creative thinking methods to address pharmaceutical issues from unique and unconventional perspectives.
MPH206S.4	Demonstrate research skills by conducting literature surveys and experiments.
MRM301T.1	Explain qualitative and quantitative aspects of clinical study design
MRM301T.2	Interpret Various Biostatistical methods in Modern Pharmaceutical Techniques
MRM301T.3	Describe various ethical guidelines for biomedical research.
MRM301T.4	Enumerate various CPCSEA guidelines for laboratory animal facility.
MRM302S.1	Understanding and debating current topics of active interest in their field
MRM302S.2	Apply skills to use search engines for selection of scientific articles of their interest
MRM302S.3	Analyze the critical thinking skills in appraisal of the scientific literature
MRM302S.4	Create a scientific report on the critically appraised article
MRM303S.1	Identify relevant information, defining and explaining topics under discussion
MRM303S.2	Demonstrate Command of voice modulation, voice projection, and pacing to support their presentation
MRM303S.3	Evaluate information and use and apply relevant theories
MRM303S.4	Analyse and Demonstrate problem solving skills and apply theoretical knowledge
MRM304S.1	Identify and discuss the role, importance and concepts to the research process in pharmacology
MRM304S.2	Discuss the complex issues in selecting a research problem, selecting an appropriate research design, and implementing a research project.
MRM304S.3	Identify and discuss the concepts and procedures of sampling, data collection, analysis and reporting.
MRM304S.4	Analysis and comprehension of proof-of-concept and related data and Make use of new and recent technology for creating technical reports
MRM401P.1	Understanding and debating current topics of active interest in their field
MRM401P.2	Apply skills to use search engines for selection of scientific articles of their interest
MRM401P.3	Analyze the critical thinking skills in appraisal of the scientific literature
MRM401P.4	Evaluate detailed knowledge of a specific area of research including the literature published in that area, its underlying concepts, theories and assumptions.
MRM402P.1	Identify relevant information, defining and explaining topics under discussion
MRM402P.2	Evaluate information and use and apply relevant theories
MRM402P.3	Demonstrate breadth of reading, use souces, show independence and flexibilty of thought

MRM402P.4	Analyze and Demonstrate problem solving skills and apply theoretical knowledge
MRM403P.1	Identify and discuss the role , importance and concepts to the research process in pharmacology
MRM403P.2	Discuss the complex issues in selecting a research problem, selecting an appropriate research design, and implementing a research project.
MRM403P.3	Identify and discuss the concepts and procedures of sampling, data collection, analysis and reporting.
MRM403P.4	Establish motivation for any topic of interest and develop a thought process for technical presentation.