



MPHARM PHARMACY PRACTICE

PPR-MPP101T:CLINICAL PHARMACY PRACTICE

Upon completion of this course, the student should be able to:

1. Understand the element of pharmaceutical care and provide comprehensive patient care services
2. Interpret the laboratory results to aid the clinical diagnosis of various disorders
3. Provide integrated, critically analyzed medicine and poison information to enable healthcare professionals in the efficient patient management

PPR-MPP102T:PHARMACOTHERAPEUTICS I

Upon completion of this course, the student should be able to:

1. Describe and explain the rationale for drug therapy
2. Summarize the therapeutic approaches for management various disease conditions
3. Discuss the clinical controversies in the drug therapy
4. Prepare individualized therapeutic plans based on diagnosis
5. Identify the patient specific parameters relevant in initiating drug therapy and monitoring therapy

PPR-MPP103T: HOSPITAL AND COMMUNITY PHARMACY

Upon completion of this course, the student should be able to:

1. Understand the organizational structure of hospital pharmacy
2. Understand drug policy and drug committees
3. Know about procurement & drug distribution practices
4. Know the admixtures
5. Understand the community pharmacy management
6. Know about value added services in community pharmacies

PPR-MPP104T: CLINICAL RESEARCH

Upon completion of this course, the student should be able to:

1. Know the new drug development process
2. Understand the regulatory and ethical requirements

3. Appreciate and conduct the clinical trials activities
4. Know safety monitoring and reporting in clinical trials
5. Manage the trial coordination process

PPR-MPP105P: PHARMACY PRACTICE PRACTICAL I

Upon completion of this course, the student should be able to:

1. Understand therapeutic approach for the management of cardiovascular, renal, gastrointestinal, hematological, neurological and psychiatric disorders
2. Identify the treatment goals for specific disease and able to develop the individualized therapeutic plans
3. To identify the patient-specific parameters for selection, initiation and monitoring of drug therapies
4. Provide the feedback regarding the drug related issues to the physicians
5. To understand the pharmacopoeia standards in preparation of various sterile pharmaceutical dosage formulations
6. To apply therapeutic knowledge of medication and its dispensation to improving patient health
7. Understand the regulatory and ethical requirements in clinical studies

PPR-MPP106S: SEMINAR IN PHARMACY PRACTICE

Upon completion of this course, the student should be able to:

1. Develop skills to gather, organize, deliver information, and defend a given topic in pharmacy practice
2. Learn to organize complex pharmacy practice concepts using audio-visual aids
3. Acquire communication and presentation skills
4. Effectively respond to the questions raised by peers and stand scientific scrutiny
5. Develop a write-up on the subject of seminar presentation
6. Cultivate a sense of upgradation of knowledge through self and continuous learning





MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

MANIPAL

(A constituent unit of MAHE, Manipal)

MPHARM PHARMACY PRACTICE

SEMESTER II - COURSE OUTCOMES (COs)

PPR-MPP 201T: PRINCIPLES OF QUALITY USE OF MEDICINES

Upon completion of this course, it is expected that students shall be able to:

1. Understand the principles of quality use of medicines
2. Know the benefits and risks associated with use of medicines
3. Understand regulatory aspects of quality use of medicines
4. Identify and resolve medication related problems
5. Promote quality use of medicines
6. Practice evidence-based medicines

PPR-MPP202 T: PHARMACOTHERAPEUTICS II

Upon completion of this course, the student shall be able to:

1. Describe and explain the rationale for drug therapy
2. Summarize the therapeutic approaches for management various disease conditions
3. Discuss the clinical controversies in the drug therapy
4. Prepare individualized therapeutic plans based on diagnosis
5. Identify the patient specific parameters relevant in initiating drug therapy and monitoring therapy

PPR -MPP 203T: CLINICAL PHARMACOKINETICS AND THERAPEUTIC DRUG MONITORING

Upon completion of this course, it is expected that students shall be able to

1. Design the drug dosage regimen for individual patients
2. Interpret and correlate the plasma drug concentrations with patients' therapeutic outcomes
3. Recommend dosage adjustment for patients with renal/hepatic impairment
4. Recommend dosage adjustment for paediatrics and geriatrics
5. Manage pharmacokinetic drug interactions
6. Apply pharmacokinetic parameters in clinical settings
7. Interpret the impact of genetic polymorphisms of individuals on pharmacokinetics and or pharmacodynamics of drugs
8. Do pharmacokinetic modeling for the given data using the principles of pharmacometrics

PPR-MPP204 T: PHARMACOEPIDEMIOLOGY AND PHARMACOECONOMICS

Upon completion of this course, the student should be able to:

1. Understand the various epidemiological methods and their applications.
2. Understand the fundamental principles of pharmacoeconomics.
3. Identify and determine relevant cost and consequences associated with pharmacy products and services.
4. Perform key pharmacoeconomics analysis methods
5. Understand the pharmacoeconomic decision analysis methods and its applications.
6. Describe current pharmacoeconomic method and issues.
7. Understand the applications of pharmacoeconomics to various pharmacy settings

PPR-MPP205P: PHARMACY PRACTICE PRACTICAL II

On completion of the course, the student shall be able to:

1. Understand therapeutic approach for the management of gastrointestinal disorders, hematological disorders, neurological disorders, psychiatric disorders and pain management
2. Identify the treatment goals for specific disease and able to develop the individualized therapeutic plans
3. Identify the patient-specific and drug related issues for selection, initiation and monitoring of drug therapies
4. Develop pharmacokinetics skills by using Phoenix WinNonlin software

PPR-MPP206S: SEMINAR IN PHARMACY PRACTICE

Upon completion of the course, the student shall be able to:

1. Develop skills to gather, organize, deliver information, and defend a given topic in pharmacy practice
2. Learn to organize complex pharmacy practice concepts using audio-visual aids
3. Acquire communication and presentation skills
4. Effectively respond to the questions raised by peers and stand scientific scrutiny
5. Develop a write-up on the subject of seminar presentation
6. Cultivate a sense of upgradation of knowledge through self and continuous learning





PHA-MRM301T: RESEARCH METHODOLOGY AND BIostatISTICS

Upon completion of the course, the student shall be able to

1. Know the various components of research design and methodology
2. Appreciate advanced statistical techniques in solving the research problems

MJC302P: JOURNAL CLUB IN PHARMACY PRACTICE

Upon completion of the course, the student shall be able to:

1. Learn to organize complex research concepts using audio-visual aids
2. Acquire communication and presentation skills
3. Effectively respond to the questions raised by peers and stand scientific scrutiny
4. Cultivate a sense of upgradation of knowledge through self and continuous learning

MPHARM – CHOICE BASED INTERDISCIPLINARY COURSES

The following electives are offered by the department to provide pharmacy practice and oriented knowledge in various topics such as

- ▶ PPR-001E: RETAIL PHARMACY PRACTICE
- ▶ PPR-002E: FUNDAMENTALS OF MEDICAL WRITING
- ▶ PPR-003E: SYSTEMATIC REVIEW AND META-ANALYSIS
- ▶ PPR-004E: PHARMACOKINETICS DATA ANALYSIS

