
Course Outcomes (COs)

Program: pharm D

Batch: 4th year



Nirmala College of Pharmacy, Muvattupuzha

Muvattupuzha P.O Ernakulam District Kerala, India, Pin:686661
 Email : info@nirmalacp.org, Phone : 04852836888

Course Outcome

SI.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO1	Understand the pathophysiology and therapeutic approach to the management of gastrointestinal diseases		Create	Suja Abraham
2	CO2	Acquire the knowledge on hematological diseases and summarise the treatment options including reference to the latest available evidence		Create	Suja Abraham
3	CO3	Analyse the therapeutic approaches in neurological diseases, based on individualised patient care and identify drug-related problems encountered in clinical practice		Create	Suja Abraham
4	CO4	Provide pharmaceutical care to patients having psychiatric diseases and correlate the monitoring parameters to the therapeutic outcome		Create	Suja Abraham
5	CO5	Formulate/suggest the therapeutic plan based on the clinical condition of the patients with pain		Create	Suja Abraham
6	CO6	Understand the significance of methodology in clinical studies and the relevance of meta analysis		Evaluate	Suja Abraham



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Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	Pharm D
Batch	2019-2025
Semester	4
Subject	Hospital Pharmacy

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	PD 4.2 T.1	Know various drug distribution methods		Understand	Merrin Joseph
2	PD 4.2 T.2	Know the professional practice management skills in hospital pharmacies		Understand	Merrin Joseph
3	PD.4.2 T.3	Know the manufacturing practices of various formulations in hospital pharmacies		Understand	Merrin Joseph
4	PD.4.2 T.4	Appreciate the stores management and inventory Control		Understand	Merrin Joseph

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Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha		
Course	Pharm D		
Batch	2019-2025		
Semester	4		
Subject	Clinical Pharmacy		

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	4.3	Monitor drug therapy of the patient through medication chart review and clinical review		Apply	Anriya Annie Tom
2	4.3	Conduct the medication history interview and counsel the patients		Apply	Anriya Annie Tom
3	4.3	Detect, assess and monitor adverse drug reactions (ADR)		Evaluate	Anriya Annie Tom
4	4.3	Provide drug / poison information services by retrieving, analyzing, interpreting and formulate drug and medicine information by utilizing various databases and softwares.		Evaluate	Anriya Annie Tom
5	4.3	Interpret selected laboratory results (as monitoring parameters) of specific disease states		Analyze	Anriya Annie Tom

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Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	Pharm D
Batch	2019-2025
Semester	4
Subject	Biostatistics & Research Methodology

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	PD 4.4 T.1	Describe the basic concepts involved in the designing and planning of a Research Work, the steps involved in conducting the research and they should be able to write and report the data obtained from the study.		Understand	Jobin Kunjumon Vilapurathu
2	PD 4.4 T.2	Know the various statistical methods to solve different types of problems and to appreciate the statistical technique in solving the pharmaceutical problems		Understand	Jobin Kunjumon Vilapurathu
3	PD 4.4 T.3	appreciate the importance of Computer in hospital and Community Pharmacy and to know various techniques for the drug information retrieval and storage		Apply	Jobin Kunjumon Vilapurathu

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Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha		
Course	Pharm D		
Batch	2019-2025		
Semester	4		
Subject	Biopharmaceutics & Pharmacokinetics		

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO1	Describe the concept behind the biopharmaceutics, pharmacokinetics and design of dose and dosage regimen	Basic ADME	Understand	Dhanish Joseph
2	CO2	Use plasma data and derive the pharmacokinetic parameters to describe the process of drug absorption, distribution, metabolism and elimination.	Pharmacokinetics	Apply	Dhanish Joseph
3	CO3	Design and evaluate dosage regimens of the drugs using pharmacokinetic and biopharmaceutic parameters.	Pharmacokinetic principles	Evaluate	Dhanish Joseph
4	CO4	Critically evaluate biopharmaceutic studies involving drug product equivalency and Assess the reason for poor bioavailability of drug and methods to overcome the poor bioavailability	Bioavailability and bioequivalence	Evaluate	Dhanish Joseph
5	CO5	Detect potential clinical pharmacokinetic problems and apply basic pharmacokinetic principles to solve them	Pharmacokinetics	Evaluate	Dhanish Joseph

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Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha		
Course	Pharm D		
Batch	2019-2025		
Semester	4		
Subject	Clinical Toxicology		

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO PD 4.6 T.1	Describe general principles involved in the management of poisoning	General management of poisoning	Understand	Elayath Parvathy Murali
2	CO PD 4.6 T.2	Differentiate and manage the clinical symptoms of various acute poisonings	Acute poisoning	Apply	Elayath Parvathy Murali
3	CO PD 4.6 T.3	Differentiate and manage the clinical symptoms of various chronic poisonings by heavy metals	Heavy metal poisoning	Apply	Elayath Parvathy Murali
4	CO PD 4.6 T.4	Evaluate the clinical symptoms and management of envenomation, snake bites, food poisoning and poisoning by various plants	Envenomations and food poisoning	Understand	Elayath Parvathy Murali
5	CO PD 4.6 T.5	Evaluate, minimize and prevent the substance abuse cases in local population	Management of substance abuse	Apply	Elayath Parvathy Murali

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Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	Pharm D
Batch	2019-2025
Semester	4
Subject	Pharmacotherapeutics-III - Practical

SI.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	1	To prepare SOAP (subjective, objective, assessment and plan) notes for selected cases		Understand	Suja Abraham
2	2	To educate the patients regarding proper use of medicines/devices and life style modifications required		Apply	Suja Abraham
3	3	To check the appropriateness of the prescription based on the clinical condition of the patient (pediatric, geriatric, pregnancy/lactation, renal/hepatic impairment)		Evaluate	Suja Abraham

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Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	Pharm D
Batch	2019-2025
Semester	4
Subject	Hospital Pharmacy- Practical

SI.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	phd.4.2.2	To Systematic Approach for the given query		Create	Merrin Joseph
2	phd.4.2.1	To analyze the drug interactions in a given medication chart		Analyze	Merrin Joseph
3	phd.4.2.3	To know the basics of different formulations and the perfect method for warehousing of a pharmacy store		Apply	Merrin Joseph

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Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	Pharm D
Batch	2019-2025
Semester	4
Subject	Clinical Pharmacy - Practical

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	4.3 P	Monitor drug therapy of the patient through medication chart review and clinical review		Apply	Anriya Annie Tom
2	4.3 P	Conduct the medication history interview and counsel the patients		Apply	Anriya Annie Tom
3	4.3 P	Detect, assess and monitor adverse drug reactions (ADR)		Evaluate	Anriya Annie Tom
4	4.3 P	Provide drug / poison information services by retrieving, analyzing, interpreting and formulate drug and medicine information by utilizing various databases and softwares		Create	Anriya Annie Tom
5	4.3 P	Interpret selected laboratory results (as monitoring parameters) of specific disease states		Analyze	Anriya Annie Tom

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Institute	Nirmala College of Pharmacy, Muvattupuzha
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Semester	4
Subject	Biopharmaceutics & Pharmacokinetics - Practical

SI.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO1	The students can analyze the quality and pharmaceutical equivalence of various solid dosage forms and Able to enhance the bioavailability of poorly solid dosage forms	Experiment 1,2,3,6	Analyze	Dhanish Joseph
2	CO2	Explain the principle and concept of protein binding and its significance in the distribution	Experiment 4, 5,13	Understand	Dhanish Joseph
3	CO3	Apply the knowledge of basic pharmacokinetics and determine the pharmacokinetic parameters from blood for the drug administered over various routes of administration	Experiment 7,8,9	Apply	Dhanish Joseph
4	CO4	Apply the knowledge of basic pharmacokinetics and determine the pharmacokinetic parameters from urin for the drug administered over various routes of administration	Experiment 14,15,16	Apply	Dhanish Joseph
5	CO5	Demonstrate the invitro methods to determine the bioequivalence.	Experiment 10, 12	Apply	Dhanish Joseph

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