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## **Course Outcomes (COs)**

**Program: B pharm**

**Batch: 3<sup>rd</sup> semester**

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# Nirmala College of Pharmacy, Muvattupuzha

Muvattupuzha P.O Ernakulam District Kerala, India, Pin:686661

Email : info@nirmalacp.org, Phone : 04852836888

## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Pharmaceutical Organic Chemistry II – Theory

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	BP301T.1	Understand about aromaticity, resonance and reactions of aromatic compounds.		Understand	Greeshma G Nair
2	BP301T.2	Understand the reactivity of phenols and aromatic amines.		Understand	Greeshma G Nair
3	BP301T.3	Depict and explain the purity and quality of oils and fats.		Apply	Greeshma G Nair
4	BP301T.4	Describe the chemistry of polynuclear aromatic hydrocarbons in terms of molecular orbital theory, aromaticity and reactions.		Remember	Greeshma G Nair
5	BP301T.5	Understand the stability of cycloalkanes & its reactions.		Understand	Greeshma G Nair

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Physical Pharmaceutics I – Theory

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO 1	Student will be able to understand solubility, dissolution and diffusion principles and its applications in biological system for improving drug action.		Understand	Melody Grace Baby
2	CO 2	Student should be able to Demonstrate use of various physicochemical properties of drug molecule in the designing and evaluation of dosage form. Student will be able to Appreciate physicochemical properties in formulation design and research		Apply	Aneeta Rose Varghese
3	CO 3	To understand the derived properties of powders like porosity, density and flow property and the fundamental properties of drug like particle size distribution, shape and surface area. This will help to study the impact of powder properties on the design of dosage form and the influence of these properties on the disintegration rate, dissolution and absorption.		Understand	Aneeta Rose Varghese
4	CO 4	Student will be able to understand the different types of complexes which the drugs form and the properties of such complexes		Understand	Aneeta Rose Varghese
5	CO 5	Student will be able to know about Ph scale and determination also different buffers and isotonic solution in biological system		Understand	Melody Grace Baby

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Pharmaceutical Microbiology – Theory

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	C308.1	To understand the growth factors and physical conditions for growth of microbes		Understand	Vincy Varghese
2	C308.2	To understand the motility, staining and biochemical characteristics of microorganisms		Understand	Vincy Varghese
3	C308.3	To understand and apply the principle of aseptic transfer		Understand	Vincy Varghese
4	C308.4	To be able to understand and apply sterility testing I. P., microbial sensitivity testing and assay of antibiotics		Understand	Vincy Varghese
5	C308.5	To understand sterilization techniques		Understand	Vincy Varghese

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Pharmaceutical Engineering – Theory

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO1	Various processes involved in pharmaceutical industry		Understand	Vincy Varghese
2	CO2	Principle, working, and theory behind equipments that is using in pharmaceutical industry		Understand	Vincy Varghese
3	CO3	Materials used in the pharmaceutical industry and its handling		Understand	Vincy Varghese
4	CO4	Prevention of corrosion and mechanical damages		Remember	Vincy Varghese
5	CO5	Making and following a standard Procedure and methods in various processes		Understand	Vincy Varghese

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Communication skills – Theory * 2

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	c01	Upon completion of the course the student will be able to communicate fearlessly. They can identify the stage of communication while they communicate, so they become effective communicators. Understand the communication barriers and they identify their communication barriers. and they easily overcome those barriers. Change their narrow thinking and start broad thinking. Enlarging their communication capacity. use good body and sound techniques of communication. They easily assume the communication styles of different people they communicate with. They are able to use the most effective communication styles in different situations.		Apply	Athira James
2	CO2	Upon completion of the course the student will be able to identify the importance of listening in communication, and become good listeners in the communication process. Improve their general writing capacity and also improve their literary writing capacity. handle different styles of writing.		Analyze	Athira James
3	CO3	Upon completion of the course the student will be able to attend an interview effectively without any fear. And make sure that they can produce their best during an interview. They can improve their confidence with enough practice.		Apply	Athira James
4	CO4	Upon completion of the course the student will be able to improve their presentation skills.		Create	Athira James
5	CO5	Upon completion of the course the students will be able to 1. Do more about Group discussions. Through practice they can develop their communication skills and also general awareness. And help to overcome their stage fear.		Apply	Athira James

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Pharmaceutical Organic Chemistry II – Practical

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	BP305P	Able to do the purification of organic compounds & extracted products		Understand	Greeshma G Nair
2	BP305P	Able to analyze the purity & quality of fats & oils in manufacturing sector		Remember	Greeshma G Nair
3	BP305P	Students will be able to synthesise organic drugs or intermediate involving one-step reaction in conventional methods and to report their percentage yield.		Understand	Greeshma G Nair
4	BP305P	Students will be able to depict and explain detailed chemical mechanisms for all chemical reactions and reactions related to synthesis.		Apply	Greeshma G Nair
5	BP305P	Knows the proper procedures and regulations for safe handling and use of chemicals and can follow the proper procedures and regulations for safe handling when using chemicals.		Remember	Greeshma G Nair

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Physical Pharmaceutics I – Practical

SI.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	CO1	To understand the derived properties of powders like porosity, density and flow property that enables the student to study the impact of powder properties on the design of dosage form	to understand	Understand	Aneeta Rose Varghese
2	CO2	To predict the rate of solubility of a drug under the influence of temperature.	to evaluate	Evaluate	Aneeta Rose Varghese
3	CO3	To predict the pKa and partition coefficient of different drugs that enables to understand its distribution nature.	to understand	Understand	Aneeta Rose Varghese
4	CO4	To analyze the fundamental properties of drug like particle size and particle size distribution. This will help to study the influence of these properties on the disintegration rate, dissolution and absorption.	to understand	Understand	Aneeta Rose Varghese
5	CO5	To analyze the stability constant and donor acceptor ratio of different complexes.	to analyse	Analyze	Aneeta Rose Varghese

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Pharmaceutical Microbiology – Practical

Sl.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	BP307P.1P	attain basic knowledge about different equipment processing used in experimental microbiology and basic sterilization methods.		Apply	Vincy Varghese
2	BP307P.2P	acquire practical knowledge for sub culturing different microorganisms and their methods of isolation		Apply	Vincy Varghese
3	BP307P.3P	gain practical knowledge to identify and differentiate different microorganism and their viability		Analyze	Vincy Varghese
4	BP307P.4P	achieve knowledge about antibiotics and their microbiological assay and sterility testing of different pharmaceutical product		Apply	Vincy Varghese
5	BP307P.5P	earn knowledge about different biochemical tests for the identification of microorganism and bacteriological analysis of water		Understand	Vincy Varghese

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## Course Outcome

Institute	Nirmala College of Pharmacy, Muvattupuzha
Course	B Pharm
Batch	2021-2025
Semester	3
Subject	Pharmaceutical Engineering –Practical

SI.No	CO Code	Course Outcome	Description	Bloom Level	Created_by
1	BP308P	Students will be able to operate various Pharmaceutical equipments		Apply	Fels Saju
2	BP308P	Students will be able to analyse and interpret the values obtained from an experiment		Analyze	Fels Saju
3	BP308P	Students will be able to set up atmospheric conditions for a pharmaceutical operation		Apply	Fels Saju
4	BP308P	Students will be able to solve critical issues happening a pharmaceutical process		Apply	Fels Saju
5	BP308P	Students will be able to select suitable equipment based on various process and material related factors		Apply	Fels Saju

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