



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, **B.Komarapalayam** – 638 183, Namakkal Dist. Tamilnadu. India.

Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.

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Ph : 9789456750, 9843035735, 9789456737.

**Dr. N.SENTHIL KUMAR, M.Pharm.,Ph.D.,**  
**Principal**

## COURSE OUTCOMES

PHARM D - 1 <sup>st</sup> YEAR	
<b>1.1</b>	<b>Human Anatomy and Physiology (THEORY)</b>
CO - 1	Identify general terminology, cell structure and function, histology of various tissues and organs of different systems of human body.
CO - 2	Explain the gross morphology, structure and functions of various organs of the human body.
CO - 3	Describe the various homeostatic mechanisms and their imbalances
CO - 4	Describe the flow of blood through the heart and the role of each atrium, ventricle, and valve in this process.
CO - 5	Appreciate coordinated working pattern of different organs of each system
<b>1.1</b>	<b>Human Anatomy and Physiology (PRACTICAL)</b>
CO - 1	Identify the various tissues and organs of different systems of human body.
CO - 2	Describe the different types of bones and provide an example of each type.
CO - 3	Locate and identify anatomical structures that surround and protect the brain
CO - 4	Perform the hematological tests like blood cell counts, haemoglobin estimation, bleeding/clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume
CO - 5	Analyze the various experiments related to heart on normal human beings.

**Dr. N.SENTHILKUMAR,**  
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## COURSE OUTCOMES

B.PHARM YEAR - I (SEMESTER - I)	
<b>BP101T</b>	<b>Human Anatomy and Physiology I –Theory</b>
<b>CO - 1</b>	Identify general terminology, cell structure and function, histology of various tissues and organs of different systems of human body.
<b>CO - 2</b>	Explain the gross morphology, structure and functions of various organs of the human body.
<b>CO - 3</b>	Describe the various homeostatic mechanisms and their imbalances
<b>CO - 4</b>	Describe the flow of blood through the heart and the role of each atrium, ventricle, and valve in this process.
<b>CO - 5</b>	Appreciate coordinated working pattern of different organs of each system
<b>BP107P</b>	<b>Human Anatomy and Physiology I – Practical</b>
<b>CO - 1</b>	Identify the various tissues and organs of different systems of human body.
<b>CO - 2</b>	Describe the different types of bones and provide an example of each type.
<b>CO - 3</b>	Locate and identify anatomical structures that surround and protect the brain
<b>CO - 4</b>	Perform the hematological tests like blood cell counts, haemoglobin estimation, bleeding/clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume
<b>CO - 5</b>	Analyze the various experiments related to heart on normal human beings.

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## COURSE OUTCOMES

M.PHARM (PHARMACEUTICS) - YEAR - I (SEMESTER - I)	
MPH101T	Modern Pharmaceutical Analytical Techniques
CO- 1	Understand the basic instrumentation of HPTLC, HPLC, GC for identification, and characterization of compounds
CO- 2	Understand the basic concept and instrumentation of Chromatographic techniques
CO- 3	Understand the basic principles and instrumentation of fluorimeter and atomic absorption spectrometer
CO- 4	Learn general principles and instrumentation of ion selective electrodes.
CO- 5	Explain Instrumentation, separation and identification of compounds by electrophoresis technique

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## COURSE OUTCOMES

M.PHARM (PHARMACEUTICAL CHEMISTRY ) - YEAR - I (SEMESTER - I)	
MPC102T	Advanced Organic Chemistry-I
CO- 1	Applied the knowledge in asymmetric synthesis
CO- 2	Understood the concepts of aromaticity and reaction intermediates.
CO- 3	Gained detailed knowledge regarding the reactions, mechanisms and their relative reactivity. Learn mechanism of electro cyclic and pericyclic reactions.
CO- 4	Enhanced the knowledge on various reactions and synthetic applications.
CO- 5	The students have been introduced to organic reaction, including isolating, purifying and characterizing the product

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## COURSE OUTCOMES

M.PHARM (PHARMACEUTICAL ANALYSIS ) - YEAR - I (SEMESTER - I)	
MPA102T	Advanced Pharmaceutical Analysis
CO- 1	The student understood the concepts of Impurity profiling
CO- 2	The students gained appropriate knowledge about appropriate analytical skills required for the analysis of impurities in the bulk drugs and various formulations.
CO- 3	The subject supply enough idea on the categorizing the impurities like (inorganic, organic and residual solvents)
CO- 4	It supports to understand the official and non-official methods to analyses the related substance
CO- 5	Critical analysis of analytical problem and selection of appropriate analytical tool for the quantification of chemicals and excipients

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## COURSE OUTCOMES

M.PHARM (PHARMACEUTICAL REGULATORY AFFAIRS ) YEAR - I (SEMESTER - I)	
<b>MRA101T</b>	<b>Good Regulatory Practices</b>
<b>CO- 1</b>	The key elements of current Good Manufacturing Practices, Good Laboratory Practices, Good Automated Laboratory Practices, Good Documentation Practices and Good Regulatory Practices.
<b>CO- 2</b>	The check lists for various Good Pharmaceutical Practices and Prepare SOPs for Good Pharmaceutical Practices
<b>CO- 3</b>	Implement Good Pharmaceutical Practices in the Industries and Prepare for the Audit of the Pharmaceutical Industries.

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## COURSE OUTCOMES

M.PHARM (PHARMACY PRACTICE ) - YEAR - I (SEMESTER - I)	
MPP101T	Clinical Pharmacy Practice
CO- 1	Explain the elements of pharmaceutical care and provide comprehensive patient care services
CO- 2	Interpret the laboratory results to aid the clinical diagnosis of various disorders
CO- 3	Produce integrated, critically analyzed medicine and poison information to enable healthcare professionals in the efficient patient management
CO- 4	Prepare individualized therapeutic plans based on diagnosis
CO- 5	Analyze the practice involved in Clinical Pharmacy Services including clinical discussion

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M.PHARM (PHARMACOLOGY) - YEAR - I (SEMESTER - I)	
<b>MPL102T</b>	<b>Advanced Pharmacology - I</b>
<b>CO- 1</b>	Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.
<b>CO- 2</b>	Explain the mechanism of drug action at the organ system / subcellular/macromolecular and molecular levels.
<b>CO- 3</b>	Understand the pharmacological actions, mechanism of drug action and its relevance in the treatment of different diseases in different categories of drugs
<b>CO- 4</b>	Be aware about the pathophysiology and pharmacotherapy of certain diseases
<b>CO- 5</b>	Comprehend the adverse effects, contraindications and clinical uses of drugs used in treatment of diseases.

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M.PHARM (PHARMACOGNOSY) - YEAR - I (SEMESTER - I)	
<b>MPG102T</b>	<b>Advanced Pharmacognosy -1</b>
<b>CO- 1</b>	List the various classes of phytoconstituents and describe their biosynthesis, isolation and characterization
<b>CO- 2</b>	Outline the process of drug discovery from plants and discuss the various steps involved in drug development
<b>CO- 3</b>	Compare the different methods of extraction and fractionation of phytoconstituents
<b>CO- 4</b>	Describe the phytochemical fingerprinting of extracts by chromatography techniques
<b>CO- 5</b>	Explain the in vitro and in vivo screening techniques for detection of bioactive phytoconstituents

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