



# ACHARYA & BM REDDY COLLEGE OF PHARMACY

Bengaluru-560107

## B PHARM COURSE OUTCOMES

DEPARTMENT	ACP	SEMESTER	1	COURSE CODE	BP101	COURSE ID	C101
COURSE TITLE		Human Anatomy and Physiology					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C101.1		Explain the structure and functions of cardio, nervous, lymph, skin and skeletal muscles.					
C101.2		Describe the correlation of the body system with each other and their contributions towards homeostasis.					
C101.3		Identify the different type of tissue and bones, perform the quantitative analysis of blood cells.					
DEPARTMENT	ACP	SEMESTER	1	COURSE CODE	BP102	COURSE ID	C102
COURSE TITLE		PHARMACEUTICAL ANALYSIS					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C102.1		Describe the various analytical techniques and fundamentals of volumetric analysis					
C102.2		Carry out the preparation and standardization of sodium hydroxide, sulphuric acid, sodium thiosulfate, potassium permanganate and ceric ammonium sulphate					
C103.3		Perform different types of titrations including acid-base titrations, non-aqueous titrations, redox titrations, precipitation titrations, complexometric titrations and gravimetric analysis.					
C102.4		State the basic principles underlying electro-analytical techniques.					
DEPARTMENT	ACP	SEMESTER	1	COURSE CODE	BP103	COURSE ID	C103
COURSE TITLE		Pharmaceutics					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C103.1		Know the history of the profession of pharmacy; the development of the IP and; introduction about BP, USP and Extra pharmacopoeia, various dosage forms, parts & procedure for handling the prescription.					
C103.2		Describe about the different dosage forms such as powders, monophasic and biphasic liquids, semisolids, pharmaceutical incompatibilities along with remedial measures, calculations related to child dose, weights and measures.					
C103.3		Apply skills in the pharmaceutical preparations such as powders, monophasic liquids, biphasic liquids and different types of semisolid dosage forms such as suppositories, ointments, pastes, creams and gels.					
DEPARTMENT	ACP	SEMESTER	1	COURSE CODE	BP104	COURSE ID	C104
COURSE TITLE		Pharmaceutical Inorganic Chemistry					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					



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C104.1		Perform limit test, test for purity and identification test for certain inorganic drugs and pharmaceuticals.					
C104.2		Explain buffers, buffer capacity, buffered isotonic solutions.					
C104.3		Explain the method of preparation, assay, storage conditions and uses of certain inorganic drugs and pharmaceuticals.					
C104.4		Describe radioactivity, radioisotopes and their pharmaceutical applications					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>2</b>	<b>COURSE CODE</b>	BP201	<b>COURSE ID</b>	<b>C105</b>
<b>COURSE TITLE</b>		Human Anatomy and Physiology-II					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C105.1		Describe the anatomy of Nervous, Digestive, Respiratory, Urinary, Endocrine and Reproductive systems.					
C105.2		Explain the physiology of Nervous, Digestive, Respiratory, Urinary, Endocrine and Reproductive systems					
C105.3		Illustrate the concept of gene and energetics.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>2</b>	<b>COURSE CODE</b>	BP202	<b>COURSE ID</b>	<b>C106</b>
<b>COURSE TITLE</b>		Pharmaceutical Organic Chemistry-I					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C106.1		Describe the IUPAC nomenclature for simple organic compounds.					
C106.2		Explain hybridization of <i>s</i> and <i>p</i> orbitals in alkanes, alkenes and impact of nucleophiles and electrophiles in the reactivity of alkenes, alkyl halides and carbonyl compound.					
C106.3		Outline the chemical test for functional group identification and list structure and uses of certain alkyl halide, alcohol, carboxylic acid and amine derivatives.					
C106.4		Apply the principles of reaction mechanism in synthesis of organic compound Discuss about key factors that affect acidity and basicity of carboxylic acid and amines.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>2</b>	<b>COURSE CODE</b>	BP203	<b>COURSE ID</b>	<b>C107</b>
<b>COURSE TITLE</b>		Biochemistry					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C107.1		Describe biological role and metabolism of carbohydrates, lipids and amino acids and bioenergetics.					
C107.2		Relate nucleic acid metabolism to genetic information transfer.					
C107.3		Discuss enzymes' classification, kinetics, regulation and their applications.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>2</b>	<b>COURSE CODE</b>	BP204	<b>COURSE ID</b>	<b>C108</b>
<b>COURSE TITLE</b>		<b>PATHOPHYSIOLOGY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C108.1		Understand the basic principles of cell injury & adaptation, Inflammation Process & repair that leads to pathophysiological mechanism in the body					
C108.2		Apply the knowledge of Pathophysiology, signs, symptoms and Diagnostic test to diagnose diseases/disorders related to Cardiovascular system, Respiratory system, Renal System, Hematological diseases, Endocrine system, Nervous system, Gastrointestinal system, Bones& Joints and Cancer					



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C108.3		Apply the knowledge of causative organism, Mode of transmission, Pathophysiology, Clinical features of infectious diseases to practice medicine safely, effectively and rationally.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>2</b>	<b>COURSE CODE</b>	BP206	<b>COURSE ID</b>	<b>C109</b>
<b>COURSE TITLE</b>		<b>ENVIRONMENTAL SCIENCES</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C109.1		Discuss the concepts, scope and importance of environmental science, the natural resources their exploitation, and the associated problems.					
C109.2		Identify the structure and functions of forest, land, desert, grass land and aquatic eco system. The biodiversity and its conservation.					
C109.3		Categorize the causes and effects and the control measures about pollution of air, water, soil, marine, noise, thermal and nuclear pollution.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>3</b>	<b>COURSE CODE</b>	BP301	<b>COURSE ID</b>	<b>C201</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL ORGANIC CHEMISTRY II</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C201.1		Describe the basic concept of nomenclature for heterocyclic compounds.					
C201.2		Explain the fundamental principles involved in the stereo chemistry of simple organic compounds and biomolecules.					
C201.3		Perform and reproduce the synthetic procedure and also apply safety precautions for bromination, hydrolysis, nitration, oxidation, reduction and diazotization reactions.					
C201.4		Perform quantitative determination of functional groups such as carbonyl, hydroxy, amino and carboxylic acid.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>3</b>	<b>COURSE CODE</b>	BP302	<b>COURSE ID</b>	<b>C202</b>
<b>COURSE TITLE</b>		<b>PHYSICAL PHARMACEUTICS</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C202.1		Describe the basic concept of nomenclature for heterocyclic compounds.					
C202.2		Explain the fundamental principles involved in the stereo chemistry of simple organic compounds and biomolecules.					
C202.3		Perform and reproduce the synthetic procedure and also apply safety precautions for bromination, hydrolysis, nitration, oxidation, reduction and diazotization reactions.					
C202.4		Perform quantitative determination of functional groups such as carbonyl, hydroxy, amino and carboxylic acid.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>3</b>	<b>COURSE CODE</b>	BP303	<b>COURSE ID</b>	<b>C203</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL MICROBIOLOGY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C203.1		Identify, isolate and cultivate microorganisms.					
C203.2		Explore sterilization protocols used in microbiology and sterility testing of pharmaceutical products					
C203.3		Evaluate the sterility testing of pharmaceutical products.					



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C203.4		Illustrate the production of antibiotics, vitamins and various fermented products by fermentation technology.					
C203.5		Use appropriate methods to obtain effective microbiological quality control of sterilization, preservation & disinfection and assessment of microbial contamination of pharmaceutical products.					
C203.6		Elaborate the cell culture technique and its application in pharmaceutical industries.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>3</b>	<b>COURSE CODE</b>	BP304	<b>COURSE ID</b>	<b>C204</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL ENGINEERING</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C204.1		Identify suitable equipment and material required for particular unit operation on the basis of advantages and disadvantages.					
C204.2		Operate of different equipment used to carry out various processes in pharmaceutical industry.					
C204.3		Accept different pharmaceutical processes useful for bulk drugs, excipients and dosage forms and biological materials & products.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>4</b>	<b>COURSE CODE</b>	BP401	<b>COURSE ID</b>	<b>C205</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL ORGANIC CHEMISTRY III</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C205.1		Explain the Stereo chemical aspects and reactions of organic compounds.					
C205.2		Describe the nomenclature, synthesis and reactions of certain heterocyclic compounds.					
C205.3		Discuss the medicinal derivatives of certain heterocyclic compounds.					
C205.4		Apply the principles of reaction mechanism in synthesis of organic compounds					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>4</b>	<b>COURSE CODE</b>	BP402	<b>COURSE ID</b>	<b>C206</b>
<b>COURSE TITLE</b>		<b>MEDICINAL CHEMISTRY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C206.1		Elaborate the role of physicochemical properties of drugs.					
C206.2		Describe metabolic pathways of drugs.					
C206.3		Outline chemical synthesis of mentioned drugs.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>4</b>	<b>COURSE CODE</b>	BP403	<b>COURSE ID</b>	<b>C207</b>
<b>COURSE TITLE</b>		<b>PHYSICAL PHARMACEUTICS II</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C207.1		Discuss the concepts of kinetics, rheology, micromeritics, coarse and colloidal dispersions					
C207.2		Analyze the micromeritic and rheological properties of pharmaceutical systems					
C207.3		Examine the preformulation aspects related to colloids, suspensions and emulsions					
C207.4		Estimate the shelf life of the formulation by accelerated stability studies					



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<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>4</b>	<b>COURSE CODE</b>	<b>BP404</b>	<b>COURSE ID</b>	<b>C208</b>
<b>COURSE TITLE</b>		<b>PHARMACOLOGY I</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C208.1		Apply the current knowledge of pharmacodynamics and pharmacokinetics of drugs acting autonomic nervous system, cardiovascular system, renal system, blood components, respiratory system, autacoids & Hormones					
C208.2		Extrapolate the fundamental molecular mechanism of receptors, enzymes, transporters and their intracellular signaling mechanism to the effect of drugs.					
C208.3		Present a case for explaining the choice of a drug over the other based on its risk benefit ratio.					
C208.4		Create awareness programs regarding the effectiveness and adverse events of drugs to the community.					
C208.5		Continuously upgrade professional information and be conversant with latest advances in Pharmacy field to serve the community better.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>SEMESTER</b>	<b>4</b>	<b>COURSE CODE</b>	<b>BP405</b>	<b>COURSE ID</b>	<b>C209</b>
<b>COURSE TITLE</b>		<b>PHARMACOGNOSY AND PHYTOCHEMISTRY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C209.1		Interprets the organised and unorganised herbal crude drugs.					
C209.2		Discuss the cultivation, conservation techniques and processing of unorganised drugs.					
C209.3		Applies the medicinal phytoconstituents and herbal drugs for disease conditions.					
C209.4		Discuss the role of Pharmacognosy in various systems of traditional medicine.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>3</b>	<b>COURSE CODE</b>	<b>C1</b>	<b>COURSE ID</b>	<b>C301</b>
<b>COURSE TITLE</b>		<b>MEDICINAL CHEMISTRY I</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C301.1		Correlate the physicochemical properties and metabolism of drugs with biological activity.					
C301.2		Explain the chemistry of drugs acting on nervous system and on histaminic, opioid and non opioid receptor					
C301.3		Explain the brief chemistry of alkaloids, purines, terpenoids and prostaglandins					
C301.4		Perform and reproduce the synthetic procedure, apply safety precautions in the synthesis through oxidation, acetylation, esterification and pechmann condensation reactions.					
C301.5		Perform quantitative analysis of drugs such as Ibuprofen, Analgin, Phenobarbitone Sodium, Benzocaine and Chlorpromazine.					
C301.6		Perform qualitative analysis of Benzocaine, Phenytoin sodium, Diclofenac sodium, Aminophylline, Aspirin, Caffeine and Paracetamol.					
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>3</b>	<b>COURSE CODE</b>	<b>C2</b>	<b>COURSE ID</b>	<b>C302</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL JURISPRUDENCE</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					



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C302.1	Explain Pharmaceutical legislations with moral ethics of pharmacy profession and Prohibit advertisements of drugs and Magic Remedies in controlling the menace of self-medication						
C302.2	Procure and storage of alcohol for the purpose of usage in the medicinal goods and methods for manufacture warehousing, Sale and export of alcoholic Preparations.						
C302.3	Follow in use of animals for experimentation and termination of pregnancy.						
C302.4	Explain the price of Drugs in Bulk and Formulation Calculated under the act.						
C302.5	Restriction that are imposed on the production, possession, sale, etc. of Coca, Opium, Hemp, and other like understand the condition that must be satisfied for the cultivation of Puppy plant						
C302.6	Uses RTI for get information from various government organizations and describe patent law and rules						
C302.7	Sell, distribute and manufacture of various schedule drugs under drug and cosmetic act and application of new drug.						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>3</b>	<b>COURSE CODE</b>	<b>C3</b>	<b>COURSE ID</b>	<b>C303</b>
<b>COURSE TITLE</b>		<b>PHARMACOGNOSY AND PHYTOCHEMISTRY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C303.1	Select an appropriate method and do extraction, isolation and purification of the natural						
C303.2	Understand the concept of phytochemical screening of the phytoconstituents obtained from the natural source						
C303.3	Acquire the skill of identification of adulteration in crude drugs and apply the different methods to determine the quality and purity of crude drugs						
C303.4	Explain the physical, chemical and pharmacological properties and recognize the molecular structure of plant metabolites						
C303.5	Categorise the different classes of alkaloids, glycosides, tannins, volatile oils and resins and indicate their possible biosynthesis						
C303.6	Understand the role of natural allergens and photosensitizing agents and fungal toxins in pathogenesis and explore marine origin natural products						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>3</b>	<b>COURSE CODE</b>	<b>C4</b>	<b>COURSE ID</b>	<b>C304</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL ENGINEERING</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C304.1	Select the suitable equipment and material required for particular unit operation on the basis of advantages and disadvantages						
C304.2	Handle different equipment used to carry out various processes in pharmaceutical industry.						
C304.3	Produce bulk drugs, excipients, and dosage forms and biological products by using different pharmaceutical unit processes.						
C304.4	Handle different type of ion exchange equipment.						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>3</b>	<b>COURSE CODE</b>	<b>C5</b>	<b>COURSE ID</b>	<b>C305</b>
<b>COURSE TITLE</b>		<b>PHARMACEUTICAL MARKETING MANAGEMENT</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C305.1	Describe socio-psychological characters affecting pharmaceutical marketing.						



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C305.2	Explain pharmaceutical market segmentation and market research.							
C305.3	Explain practical aspects of product detailing and marketing of pharmaceutical products and concept of entrepreneurship.							
C305.4	Explain importance of advertisement in sales promotion and channels of distribution.							
C305.5	Describe different pricing methods of pharmaceutical products and quality management							
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>3</b>	<b>COURSE CODE</b>	<b>C6</b>	<b>COURSE ID</b>	<b>C306</b>	
<b>COURSE TITLE</b>	<b>PHARMACOLOGY I</b>							
<b>COURSE OUTCOME NO</b>	<b>COURSE OUTCOME STATEMENTS</b>							
C306.1	Select the drugs in suitable dosage form on the basis of pharmacokinetics and pharmacodynamics							
C306.2	Describe development of drugs by preclinical and clinical evaluation.							
C306.3	Describe the pharmacological action, adverse effects, drug interaction, and therapeutic uses of various drugs acting on autonomic nervous system, cardiovascular system, urinary system, endocrine system and respiratory system.							
C306.4	Recommend HACPMatological disorders, drug used in the treatment and their therapeutic benefits.							
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>4</b>	<b>COURSE CODE</b>	<b>D1</b>	<b>COURSE ID</b>	<b>C401</b>	
<b>COURSE TITLE</b>	<b>PHARMACEUTICAL BIOTECHNOLOGY AND BIOPHARMACEUTICS</b>							
<b>COURSE OUTCOME NO</b>	<b>COURSE OUTCOME STATEMENTS</b>							
C401.1	Describe the preformulation and formulation aspects, manufacturing process and evaluation methods and operate relevant machinery or equipment liquid orals, ophthalmic and parenteral preparations.							
C401.2	Explain the formulation aspects, manufacturing, packaging, evaluation, quality control and stability study of ACProsols; elaborate about the formulation and prepare selected cosmetic products.							
C401.3	Cite the principles and factors related to drug absorption, bioavailability, bioequivalence and illustrate selected drug blood level curves; List a few novel drug delivery systems.							
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>4</b>	<b>COURSE CODE</b>	<b>D2</b>	<b>COURSE ID</b>	<b>C404</b>	<b>DEPARTMENT</b>
<b>COURSE TITLE</b>	<b>INSTRUMENTAL AND BIOMEDICAL ANALYSIS</b>							
<b>COURSE OUTCOME NO</b>	<b>COURSE OUTCOME STATEMENTS</b>							
C402.1	Restate the different chromatographic techniques such as, paper chromatography, thin layer chromatography, high performance liquid chromatography, high Performance thin layer chromatography, gas chromatography, electrophoresis and gel filtration and affinity chromatography							
C402.2	Ascertain the various categories of drugs by interpreting the results and data obtained through spectroscopic techniques including UV-Visible spectroscopy, IR Spectroscopy, fluorimetry and flame emission/ atomic absorption spectroscopy.							



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C402.3	Interpret the results and data of various categories of drugs through spectroscopic techniques such as UV-Visible spectroscopy, IR Spectroscopy, Fluorimetry and Flame emission spectroscopy.						
C402.4	Execute the electrochemical analysis by Potentiometric, Conductometric and Nepheloturbidimetric / Turbidimetric methods.						
C402.5	Reiterate the prescribed analytical guidelines in all their laboratory performances.						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>4</b>	<b>COURSE CODE</b>	<b>D3</b>	<b>COURSE ID</b>	<b>C402</b>
<b>COURSE TITLE</b>		<b>PHARMACOLOGY AND TOXICOLOGY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C403.1	Describe the drug receptor interaction and ADME of various drugs						
C403.2	Explain the biosynthesis, storage, metabolism and degradation of various neurotransmitters						
C403.3	Explain practical aspects of pharmacological screening						
C403.4	Screen different medicinal agents using animal models for pharmacological activity.						
C403.5	Describe the toxicological profile of drugs and the methods of prevention of toxicity						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>4</b>	<b>COURSE CODE</b>	<b>D4</b>	<b>COURSE ID</b>	<b>C403</b>
<b>COURSE TITLE</b>		<b>MEDICINAL CHEMISTRY II</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C404.1	Describe the structure activity relationship, mechanism of action and synthesis of selected drugs acting on cardiovascular system, urinary system, on microorganisms and in the treatment of cancer.						
C404.2	Perform and reproduce the synthetic procedure and also apply safety precautions for the reactions such as Perkin condensation, Cannizzaro reaction, Mannich reaction, dehydration, diazotization, rearrangement and bromination reaction.						
C404.3	Perform quantitative analysis of drugs such as Sulphadiazine, Chloroquine, Ascorbic acid, Isonicotinic acid, Chloroquine, Metronidazole and Dapsone						
C404.4	Perform quantitative analysis of functional groups like ketone, hydroxy and amide						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>4</b>	<b>COURSE CODE</b>	<b>D5</b>	<b>COURSE ID</b>	<b>C405</b>
<b>COURSE TITLE</b>		<b>INDUSTRIAL PHARMACOGNOSY</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
C405.1	Describe the need and scope of herbs & their application towards herbal drug industry along with patent filling process.						
C405.2	Carryout the isolation and identification of various phytoconstituents from crude drugs and different methods of estimation and standardization with of HPTLC & HPLC.						





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C405.3	Discuss the traditional system of medicines like Ayurveda, Siddha, Unani, Homeopathy and prepare different Ayurvedic formulations along with importance of herbal cosmetics and their applications						
C405.4	Explain different methods for production of secondary metabolites by tissue culture techniques and immobilization of enzymes.						
C405.5	Describe the various regional names and their traditional uses and identify active constituents of some crude drugs.						
C405.6	Recognise the health benefits natural sweeteners and bitters over the synthetic drugs.						
<b>DEPARTMENT</b>	<b>ACP</b>	<b>YEAR</b>	<b>4</b>	<b>COURSE CODE</b>	<b>D6</b>	<b>COURSE ID</b>	<b>C406</b>
<b>COURSE TITLE</b>	<b>ADVANCED INDUSTRIAL PHARMACY</b>						
<b>COURSE OUTCOME NO</b>	<b>COURSE OUTCOME STATEMENTS</b>						
C406.1	Describe fabrication, design, evaluation and application of Controlled and Novel Drug Delivery Systems.						
C406.2	Provide data that can be used in making a decision on whether or not to proceed to a full-scale production process						
C406.3	Illustrate different types of validation of dosage forms equipment, Types of packaging material, quality by design, regulatory guidelines and biostatics.						