# Chalapathi Institute of Pharmaceutical Sciences (AUTONOMOUS)

Chalapathinagar, Lam, Guntur-34

Accredited with 'A+' Grade by NAAC Accredited by NBA (B.Pharmacy)





# LABORATORY MANUAL MEDICINAL CHEMISTRY- III (BP 607P)

Name :

Register No :

Course :

Year/ Semester:



# CHALAPATHI INSTITUTE OF PHARMACEUTICAL SCIENCES (AUTONOMOUS)

### **VISION:**

To inculcate excellence in various fields of pharmacy, mould the institution as centre of excellence in terms of academics and advanced research.

### **MISSION:**

Committed to impart quality pharmacy education and research to meet global standards

### QUALITY POLICY:

Chalapathi Institute of pharmaceutical sciences is committed to impart quality pharmacy education to the growing needs of the society by implementing quality management system on a continual contact basis and continually improved services.

We shall protect the interest of our students and prepare them to meet growing challenges with increased ability to serve the nation and society.

### PROGRAMME OUTCOMES (PO's)

PO1	Pharmacy Knowledge: Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioural, social, and administrative pharmacy sciences; and manufacturing practices.
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PO5	Leadership skills: Understand and consider the human reaction to change, motivation, issues, leadership and team-building when planning changes required for fulfilment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and wellbeing.
PO6	<b>Professional Identity:</b> Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).

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### PROGRAMME EDUCATIONAL OBJECTIVES (PEO's)

PEO1	Proficiency: Programme encompasses the students with profound functional knowledge in core subjects of pharmaceutical sciences like pharmaceutical chemistry, pharmaceutical analysis, pharmaceutics, pharmacognosy, pharmacology and pharmacy practice. This enables students to be competent enough and apply these tools in pharmaceutical and health care industries, research/clinical laboratories, hospitals and community pharmacies for overall maintenance of public health.
PEO2	Practicability (Practical aptitude): Implementation of innovative teaching learning methodologies with visual aids/computer aided tools empowers the students in understanding the concepts with clarity and transparency. Students are trained in handling sophisticated equipment and in their troubleshooting procedures, problem based learning which makes them to apply the learned theoretical concepts to real time applications and meet the current pharmaceutical industrial demand.
PEO3	Lifelong learner (Liaisons): To develop globally accepted competent students in terms of punctuality, amicability, communication skills and self learning. Students are encouraged to participate in class room seminars, group discussions, exhibitions, quizzes, conferences, symposia, seminars, workshops and health care programs. This enables the students with specific hard skills, capable of understanding the most advanced technologies, research and can integrate this knowledge and skills with contemporary needs of the society.
PEO4	Collaborator: To inculcate collective learning, knowledge sharing and knowledge transfer through their involvement in interdisciplinary research activities and to improve leadership, team work and managerial skills which helps them to play influential roles either in an organisation or in community.
PEO5	Professionalism: To promote the development of scholarly thinking, professional identity and ethics among the students for their further professional growth either in the pharmaceutical and health care industries or to pursue higher studies and research.

PO7	Pharmaceutical Ethics: Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behaviour that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
PO8	Communication: Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective Presentations and documentation, and give and receive clear instructions.
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PO11	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self- assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

Course Name : Medicinal Chemistry - III (Practical)

Course code : BP 607 P

C607.1	To recall the basic requirements for synthesis of drugs.
C607.2	To explain the principle and method of preparation of drugs.
C607.3	To choose the appropriate method for assay of drugs
C607.4	To make use of microwave technique for synthesis of drugs
C607.5	To explain the drawing of chemical structures and reactions using chemdraw
C607.6	To determine the physicochemical properties of drugs using drug design software.

# Chalapathi Institute of Pharmaceutical Sciences (AUTONOMOUS)

Chalapathinagar, Lam, Guntur-34

Accredited with 'A' Grade by NAAC



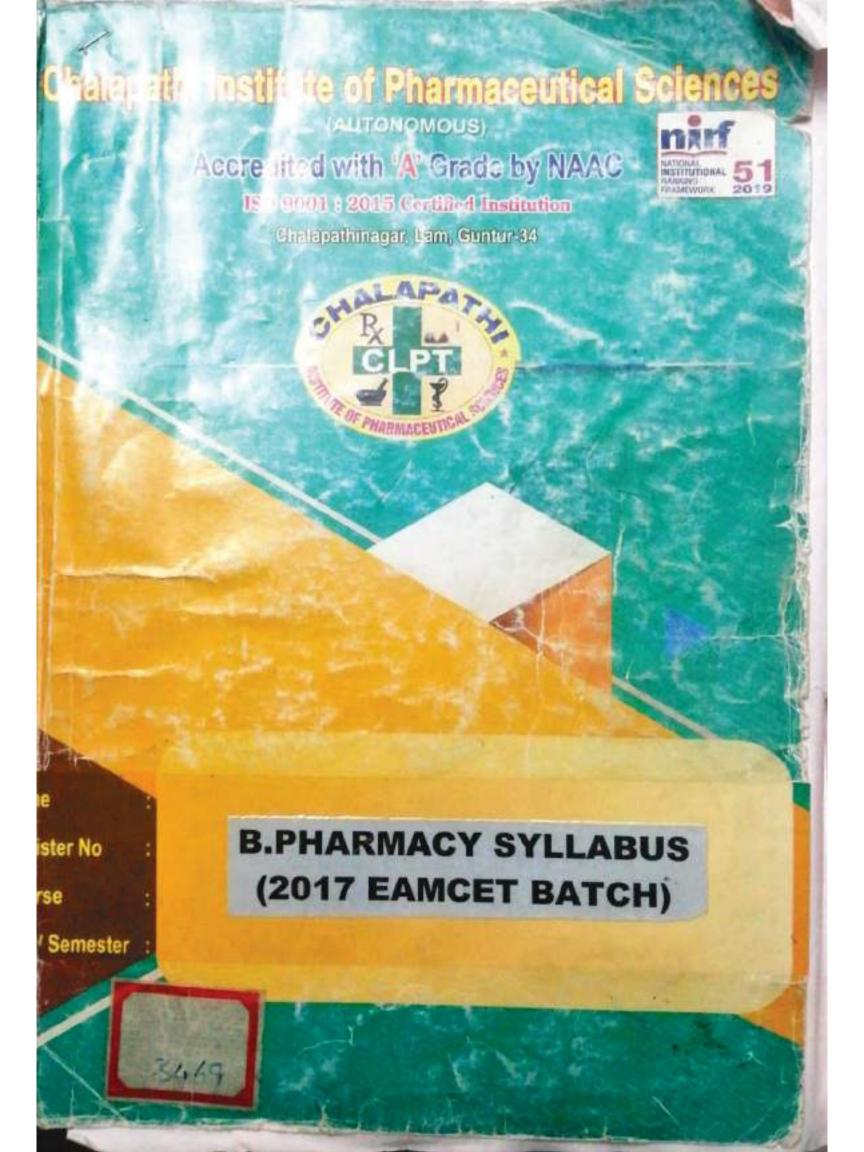
## M.PHARMACY SYLLABUS (ALL BRANCHES)

Name

Register No

Course

Year/ Semester



	PROGRAMME OUTCOMES (PB's)				
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### **BP 203 T**

### BP203T-BIOCHEMISTRY THEORY (45 HOURS)

Scope: Biochemistry deals with complete understanding of the molecular levels of the chemical process associated with living cells. The scope of the subject is providing biochemical facts and the principles to understand metabolism of nutrient molecules in physiological and pathological conditions. It is also emphasizing on genetic organization of mammalian genome and hetero & autocatalytic functions of DNA.

Objectives: Upon completion of course student shell able to

- Understand the catalytic role of enzymes, importance of enzyme inhibitors in design of new drugs, therapeutic and diagnostic applications of enzymes.
- Understand the metabolism of nutrient molecules in physiological and pathological conditions.
- Understand the genetic organization of mammalian genome and functions of DNA in the synthesis of RNAs and proteins.

### Course Outcome:

C203.1	To remember the properties, significance and metabolic reactions of carbohydrates, lipids, nucleic acids, proteins and amino acids			
C203.2	To understand the metabolism of carbohydrates and process of electron transport and ATP formation			
C203.3	To apply the concept of catalytic activity and enzyme inhibition i design of new drugs, diagnostic and therapeutic applications of enzyme			
C203.4	To distinguish the process of DNA replication, transcription and translation			
C203.5	To appraise the causes, manifestations and diagnosis of metabolic disorders			
C203.6	To discuss the metabolism of nucleic acids, lipids and amino acids			

### Course Content:

Chapter / Topic	Dura- tion (Hrs.)	References	
Biomolecules     Introduction, classification, chemical nature and biological role of carbohydrate, lipids, nucleic acids, amino acids and proteins.      Bioenergetics     Concept of free energy, endergonic and exergonic reaction, Relationship between free energy, enthalpy and	08	1. Biochemistry, U.Satya narayana and U.Chakrapani, 4th edition, Elsevier & Books and allied Pvt Ltd., 2013, Chapter.1, 2, 3, 4 and 5.  2. A text book of Biochemistry, AVSS Rama Rao, 9th edition, UBS publishers and distributers, 2004, Chapter.15	

# BP 408 p

### II/IV B.PHARMACY - 4th SEMESTER BP408 P - PHARMACOLOGY-I (PRACTICAL) 60 Hours

Course	Out	come	:
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To learn about basic instruments, common laboratory animals used in experimental pharmacology and to organize animal house as per the CPCSEA guidelines.				
To demonstrate the common laboratory techniques like routes of administrate blood withdrawal, anesthetics and euthanasia used for animal studies				
To interpret the effects of various drugs on rabbit eye and ciliary most				
To analyse the effect of drugs acting as enzyme inducers, skeletal me				
To evaluate the stereotype and anticatatonic activity of drugs				
To predict various screening models for anticonvulsant and anxiolytic activity				

	Vo.	Experiment	Dura	tion	References
	1	Introduction to experimental pharmacology		rs	Hand book of Experimental Pharmacology - S.K.Kulkarn 3 <sup>rd</sup> edition; Vallabh Prakasha publishers; Exp. No.:1
3		Commonly used instruments in experimental pharmacology	6 hr		Hand book of Experimental Pharmacology - S.K.Kulkarni 3 <sup>rd</sup> edition; Vallabh Prakashan publishers; Exp. No.:1
4	1	Study of common laboratory animals	6 hrs	5 F	Screening methods in Pharmacology - N.S. Parmar;
4	gu	faintenance of laboratory nimals as per CPCSEA uidelines	3 hrs	P P	Hand book of Experimental Pharmacology - S.K.Kulkarni; rd edition; Vallabh rakashan publishers; F.
	ser sep	chniques. Blood withdrawal, rum and plasma caration, anesthetics and hanasia used for animal dies.	6 hrs	Dr eva ass	o.:2.  Tug discovery and aluation, pharmacological says; H. Gerhard Vogel; 2nd tion; Chapter Q.

# CHALAPATHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(AUTONOMOUS)

CHALAPATHI NAGAR, LAM, GUNTUR, (A.P.) - 522 034.

Ph: +91 - 0863 - 2524124, 2524125

Fax: 0863 - 2524123



AY: 2022 - 2023

Botch : 2022 - 2024

M. PHARMACY - PHARMACEUTICS

### STUDENTS ATTENDANCE REGISTER

CLASS: I/I M. Pharmacy I Sentiter

SUBJECT: Drug delivery systems [MPH 102T]

Pharmaceutics Practical- I [MPH105P]

TEACHERS

18

GUR/KS/VP

### COURSE OUTCOMES

Course	Name: Drug Delivery Systems (Theory)
Course (	Code: MPH102T, Year of Study: 1"M.Pharmacy 1" Semester
C102.1	To recall the basic concepts of sustained release, controlled release, polymer science and personalized medicine.
C102.2	To explain (impart) the principles and fundamentals of controlled drug delivery systems, protein-peptide drug delivery and vaccine drug delivery systems.
C102.3	To (train) develop the formulations of gustro retentive, ocular, transdermal, protein-peptide and vaccine drug delivery systems.
C102.4	To analyze the formulations of gastro retentive and ocular drug delivery systems.
C102.5	To assess the transdomnal and protein-peptide drug delivery systems.
C102.6	To evaluate the formulated vaccine drug delivery systems.

Faculty

: Dr. Pallavi Vadlamudi. Associate Professor

Mrs. Ch. Sai Charitha, Assistant Professor

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M.PHARMACY PROGRAMME PHARMACEUTICS (MPH) PROGRAMME OUTCOMES (PO's)	
PO 2	Technological applications: To utilize technical knowledge and identify any factors affecting the quality of pharmaceutical production.
PO 3	Modern tool usage: Learn, select, apply appropriate methods, procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
PO 4	Entrepreneurship: To understand the basics of establishing and management of pharmaceutical enterprise.
PO 5	Practical skills: To gain practical expertise in formulating and evaluating various novel drug release systems for minor ailments to major diseases.
P06	Applied science: To employ contemporary scientific knowledge viz., pharmacology, biotechnology for designing disease-centric pharmaceuticals.
PO 7	Computational and statistical methodologies: Applying and utilizing the statistical tools with the aid of computer software to optimize the formulations.
PO 8	Pharmaceutical ethics: To respect personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural, personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
PO 9	Environment and sustainability: To understand, protect and cooperate environmental concerns for sustaining biodiversity.
PO10	Life-long learning: To develop the habit of updating knowledge from time to time to meet industrial demands and social needs for having a fruitful career.



# CHALAPATHI INSTITUTE OF PHARMACEUTICAL SCIENCES marf

### (AUTONOMOUS)

## SANTATIONAL PARKETON

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### PROGRAMME OUTCOMES (PO's)

P81	Pharmacy Knowledge: Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioural, social, and administrative pharmacy sciences; and manufacturing practices.
P02	Planning Abilities: Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
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### CHALAPATHI INSTITUTE OF PHARMACEUTICAL SCIENCES



(Autonomous)

Accredited with "A+" Grade by NAAC Accredited by NBA (B.Pharmacy) ISO 9001: 2015 Certified Institution Chalapathi Nagar, Lam, Guntur-522034



## CALENDAR OF EVENTS (2022-2023)





































### CHALAPATHI E OF PHARMACEUTICAL SCIENCES

(Affivated to ACHARYA NAGARJI)NA UNIVERSITY) Accredited by NAAC with 'A+' Grade and Accredited by NBA (B.Pharmacy).

Programme |

: B. Pharmacy

Course

: Physical Pharmaceutics - I

Code

: BP 302 T

Academic Year : 2022-2023

Year & Sem

: 2" Year & 3" Sem

Faculty

: Dr. Pallavi Vadlamudi, Professor,

Mrs. S.Jyotsna Rani, Assistant Professor

Mr.MD.Mustaq, Assistant Professor

Department |

: Pharmaceuties

Head of the Department Department of Pharmacouticus Chalapathi Institute of Pharamaceutical Sciences **LAM GUNTUR-522 034** 

## CHALAPATHI INSTITUTE OF PHARMACEUTICAL SCIENCES (AUTONOMOUS)



Programme: Pharm.D PROGRAMME OUTCOMES (PO's)

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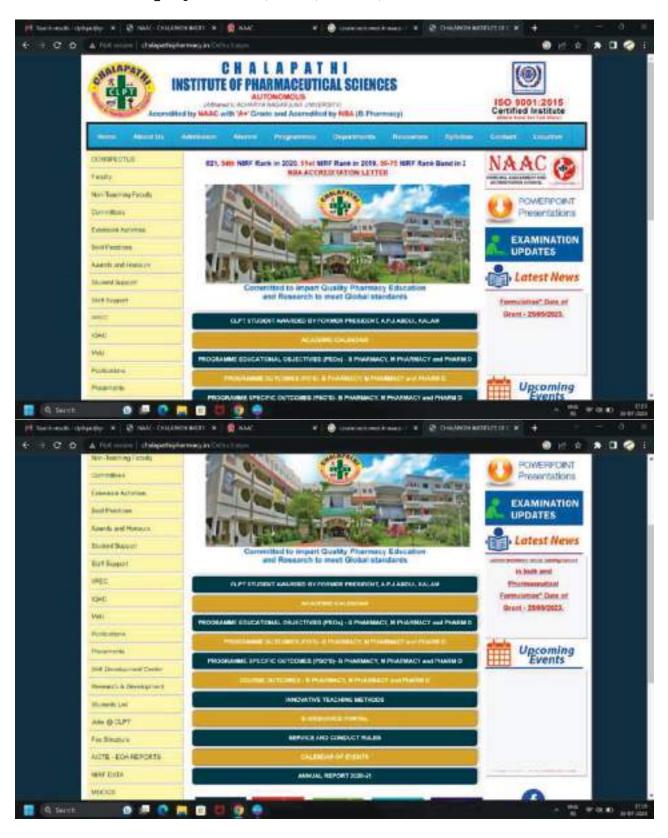
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### Display of COs, POs, PEOs, PSOs in Website







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