



# **FACULTY OF PHARMACEUTICAL SCIENCES**

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## **PROGRAMME STRUCTURE** (As Per Pharmacy Council of India)

## **BACHELOR OF PHARMACY**

**UNIVERSITY**

Aegis: Charutar Vidya Mandal (Estd.1945)

**Effective from Academic Year: 2025-26**



Faculty Name: Faculty of Pharmaceutical Sciences

Programme Name: Bachelor of Pharmacy

## Programme Structure Summary

SEMESTER 1												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010101	HUMAN ANATOMY AND PHYSIOLOGY – I	4	3	–	1	4	25/10	75/30	–	–	100/50
CORE	108010102	PHARMACEUTICAL ANALYSIS – I	4	3	–	1	4	25/10	75/30	–	–	100/50
CORE	108010103	PHARMACEUTICS – I	4	3	–	1	4	25/10	75/30	–	–	100/50
CORE	108010104	PHARMACEUTICAL INORGANIC CHEMISTRY	4	3	–	1	4	25/10	75/30	–	–	100/50
CORE	108010105	COMMUNICATION SKILLS +	2	2	–	–	2	15/6	35/14	–	–	50/25
CORE	108010106	REMEDIAL BIOLOGY +	2	2	–	–	2	15/6	35/14	–	–	50/25
CORE	108010107	REMEDIAL MATHEMATICS +	2	2	–	–	2	15/6	35/14	–	–	50/25
CORE	108010111	HUMAN ANATOMY AND PHYSIOLOGY - I PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
CORE	108010112	PHARMACEUTICAL ANALYSIS - I PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
CORE	108010113	PHARMACEUTICS - I PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
CORE	108010114	PHARMACEUTICAL INORGANIC CHEMISTRY PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
CORE	108010115	COMMUNICATION SKILLS PRACTICAL +	1	–	2	–	2	–	–	15/6	35/14	50/25
CORE	108010116	REMEDIAL BIOLOGY PRACTICAL +	1	–	2	–	2	–	–	15/6	35/14	50/25

+ - Non University Examination

SEMESTER 2												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT (P) Max./ Passing	EXT (P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
Core	108010201	HUMAN ANATOMY AND PHYSIOLOGY - II	4	3	–	1	4	25/10	75/30	–	–	100/50
Core	108010202	PHARMACEUTICAL ORGANIC CHEMISTRY - I	4	3	–	1	4	25/10	75/30	–	–	100/50
Core	108010203	PHARMACEUTICAL ENGINEERING	4	3	–	1	4	25/10	75/30	–	–	100/50
Core	108010204	COMPUTER APPLICATIONS IN PHARMACY+	3	3	–	–	3	15/6	35/14	–	–	50/25
Core	108010205	ENVIRONMENTAL SCIENCES+	3	3	–	–	3	15/6	35/14	–	–	50/25
Core	108010211	HUMAN ANATOMY AND PHYSIOLOGY - II PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
Core	108010212	PHARMACEUTICAL ORGANIC CHEMISTRY I PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
Core	108010213	PHARMACEUTICAL ENGINEERING PRACTICAL	2	–	4	–	4	–	–	25/10	75/30	100/50
Core	108010214	COMPUTER APPLICATIONS IN PHARMACY PRACTICAL +	1	–	2	–	2	–	–	15/6	35/14	50/25
LIBERAL ARTS (ANY ONE)	100009902	A COURSE ON LIBERAL ARTS - PAINTING	2	–	2	–	2	–	–	25/10	25/10	50/25
	100009903	A COURSE ON LIBERAL ARTS - PHOTOGRAPHY	2	–	2	–	2	–	–	25/10	25/10	50/25
	100009904	A COURSE ON LIBERAL ARTS - MEDIA AND GRAPHICS	2	–	2	–	2	–	–	25/10	25/10	50/25
	100009905	A COURSE ON LIBERAL ARTS - MUSIC	2	–	2	–	2	–	–	25/10	25/10	50/25
	100009906	A COURSE ON LIBERAL ARTS - DRAMATICS	2	–	2	–	2	–	–	25/10	25/10	50/25
	100009907	A COURSE ON LIBERAL ARTS - CONTEMPORARY DANCE	2	–	2	–	2	–	–	25/10	25/10	50/25

\* A Course on Liberal Arts – Any One Course to be opted

+ - Non University Examination



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SEMESTER 3												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010301	PHARMACEUTICAL ORGANIC CHEMISTRY – II	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010302	PHYSICAL PHARMACEUTICS - I	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010303	BIOCHEMISTRY	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010304	PATHOPHYSIOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010305	PHARMACOGNOSY AND PHYTOCHEMISTRY – I	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010311	PHARMACEUTICAL ORGANIC CHEMISTRY –II PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010312	PHYSICAL PHARMACEUTICS –I PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010313	BIOCHEMISTRY PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010315	PHARMACOGNOSY AND PHYTOCHEMISTRY –I PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
MANAGEMENT	900009901	CREATIVITY, PROBLEM SOLVING AND INNOVATION	2	-	2	-	2	-	-	50/20	50/20	100/50

SEMESTER 4												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010401	PHARMACEUTICAL ORGANIC CHEMISTRY -III	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010402	MEDICINAL CHEMISTRY -I	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010403	PHYSICAL PHARMACEUTICS -II	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010404	PHARMACOLOGY –I	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010405	PHARMACEUTICAL JURISPRUDENCE	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010412	MEDICINAL CHEMISTRY –I PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010413	PHYSICAL PHARMACEUTICS –II PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010414	PHARMACOLOGY –I PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50



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SEMESTER 5												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010501	MEDICINAL CHEMISTRY - II	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010502	PHARMACOLOGY - II	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010503	PHARMACOGNOSY AND PHYTOCHEMISTRY - II	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010504	PHARMACEUTICAL MICROBIOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010505	PHARMACEUTICAL BIOTECHNOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010512	PHARMACOLOGY - II PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010513	PHARMACOGNOSY AND PHYTOCHEMISTRY - II PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010514	PHARMACEUTICAL MICROBIOLOGY PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50

SEMESTER 6												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010601	MEDICINAL CHEMISTRY - III	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010602	PHARMACOLOGY - III	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010603	HERBAL DRUG TECHNOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010604	BIOPHARMACEUTICS AND PHARMACOKINETICS	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010605	INDUSTRIAL PHARMACY - I	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010611	MEDICINAL CHEMISTRY - III PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010612	PHARMACOLOGY - III PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010613	HERBAL DRUG TECHNOLOGY PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50
CORE	108010615	INDUSTRIAL PHARMACY - I PRACTICAL	2	-	4	-	4	-	-	25/10	75/30	100/50



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SEMESTER 7												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010701	INSTRUMENTAL METHODS OF ANALYSIS	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010702	INDUSTRIAL PHARMACY - II	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010703	PHARMACY PRACTICE	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010704	NOVEL DRUG DELIVERY SYSTEM	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010705	PHARMACEUTICAL QUALITY ASSURANCE	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010706	PRACTICE SCHOOL +	6	-	12	-	6	-	-	25/10	75/30	100/50
CORE	108010711	INSTRUMENTAL METHODS OF ANALYSIS PRACTICAL	2	-	4	-	2	-	-	25/10	75/30	100/50

#### + - Non University Examination

SEMESTER 8												
Course Group	Course Code	Course Name	Cr	Teaching Scheme				INT(T) Max./ Passing	EXT(T) Max./ Passing	INT(P) Max./ Passing	EXT(P) Max./ Passing	Grand Total Max./ Passing
				T	P	Tu	Cont. Hrs					
CORE	108010801	BIostatistics and Research Methodology	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE	108010802	SOCIAL AND PREVENTIVE PHARMACY	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE * ELECTIVE - I (ANY ONE)	108010803	PHARMACOVIGILANCE	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010804	QUALITY CONTROL AND STANDARDIZATION OF HERBALS	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010805	COSMETIC SCIENCE	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010806	EXPERIMENTAL PHARMACOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010807	PHARMACEUTICAL PRODUCT DEVELOPMENT	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE * ELECTIVE - II (ANY ONE)	108010808	EPIDEMIOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010809	PHARMA MARKETING MANAGEMENT	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010810	PHARMACEUTICAL REGULATORY SCIENCE	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010811	COMPUTER AIDED DRUG DESIGN	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010812	CELL AND MOLECULAR BIOLOGY	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010813	ADVANCED INSTRUMENTATION TECHNIQUES	4	3	-	1	4	25/10	75/30	-	-	100/50
	108010814	DIETARY SUPPLEMENTS AND NUTRACEUTICALS	4	3	-	1	4	25/10	75/30	-	-	100/50
CORE PROJECT	108010815	PROJECT WORK	6	-	12	-	12		-	25/10	75/30	100/50

\*- Select one (01) course from Elective – I & II



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## Programme Outcomes

PO-1	<b>Pharmacy Knowledge:</b> Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
PO-2	<b>Planning Abilities:</b> Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
PO-3	<b>Problem analysis:</b> Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
PO-4	<b>Modern tool usage:</b> Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
PO-5	<b>Leadership skills:</b> Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well- being.
PO-6	<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).
PO-7	<b>Pharmaceutical Ethics:</b> Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior 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.
PO-8	<b>Communication:</b> 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.
PO-9	<b>The Pharmacist and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
PO-10	<b>Environment and sustainability:</b> Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-11	<b>Lifelong learning:</b> 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.