

### B.PHARM PROGRAM STRUCTURE (2013 PATTERN)

Sem	Department of Pharmaceutics	Theory (Hrs)	Practical (Hrs)	Department of Pharmaceutical Chemistry	Theory (Hrs)	Practical (Hrs)	Department of Pharmacology	Theory (Hrs)	Practical (Hrs)	Department of Pharmacognosy	Theory (Hrs)	Practical (Hrs)
Sem-I	Pharmaceutics-I	3	3	Pharmaceutical Inorganic Chemistry	3	3	Human Anatomy and Physiology-I	3	3	-	-	-
	Modern dispensing Practices subject	3	3	Pharmaceutical Organic Chemistry-I	3	3	-	-	-	-	-	-
	Communication and soft skill development	3	-	-	-	-	-	-	-	-	-	-
Sem-II	Pharmaceutics-II	3	-	Pharmaceutical Organic Chemistry-II	3	3	Human Anatomy and Physiology-II	3	3	Pharmacognosy	3	3
	Dosage Form Design	3	3	Pharmaceutical analysis-I	3	3	-	-	-	-	-	-
Sem-III	Physical Pharmaceutics-I	3	3	Pharmaceutical Biochemistry	3	3	Pharmacology- I	3	-	Pharmacognosy and Phytochemistry- I	3	3
	Pharmaceutical Microbiology	3	3	Pharmaceutical Organic Chemistry-III	3	3	-	-	-	-	-	-
	Environmental Scence	2	-	-	-	-	-	-	-	-	-	-
Sem-IV	Physical Pharmaceutics-II	3	3	Pharmaceutical Organic Chemistry-IV	3	3	Pathphysiology and clinical Biochemistry	3	3	Pharmacognosy and Phytochemistry- II	3	3
	Pharmaceutical Engineering	3	-	Pharmaceutical Analysis-II	3	3	-	-	-	-	-	-
Sem-V	Industrial Pharmacy-I	3	3	Pharmaceutical Analysis-III	3	3	Pharmacology- II	3	3	Active Pharmaceutical Extraction Technology	3	3
	Pharmaceutical Business Management and Disaster Management	3	-	Medicinal Chemistry-I	3	3	-	-	-	-	-	-

	-	-	-	Active Pharmaceutical Ingredient Technology	3	-	-	-	-	-	-	-
Sem-VI	Industrial Pharmacy-II	3	3	Pharmaceutical Analysis-IV	3	3	Pharmacology-III	3	3	Natural Product Chemistry	3	3
	Pharmaceutical Biotechnology	3	-	Medicinal Chemistry-II	3	3	-	-	-	-	-	-
	-	-	-	Bioorganic Chemistry and Drug Design	3	-	-	-	-	-	-	-
Sem-VII	Sterile Products	3	3	Pharmaceutical Analysis-V	3	3	Pharmacology-IV	3	3	Natural drug Technology	3	3
	Bio-pharmaceutics and pharmacokinetics	3	-	Medicinal Chemistry-III	3	3	-	-	-	-	-	-
	Pharmaceutical Jurisprudence	3	-	-	-	-	-	-	-	-	-	-
Sem-VIII	Advanced Drug Delivery System	3	3	Pharmaceutical Analysis VI	3	3	Pharmacology V (Including biostatistic)	3	3	Natural products: Commerce, Industry and Regulations	3	-
	Cosmetic Science	3	3	Medicinal Chemistry IV	3	3	-	-	-	-	-	-
	Quality Assurance Techniques	3	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>59</b>	<b>33</b>		<b>54</b>	<b>48</b>		<b>24</b>	<b>21</b>		<b>21</b>	<b>18</b>
<b>Total Number of theory subjects: 53</b>							<b>Total Number of practical subjects: 40</b>					

**B.PHARM PROGRAM STRUCTURE (2015 PATTERN)**

Sem	Department of Pharmaceutics	Theory (Hrs)	Practical (Hrs)	Department of Pharmaceutical Chemistry	Theory (Hrs)	Practical (Hrs)	Department of Pharmacology	Theory (Hrs)	Practical (Hrs)	Department of Pharmacognosy	Theory (Hrs)	Practical (Hrs)
Sem-I	Pharmaceutics-I	3	3	Pharmaceutical Inorganic Chemistry	3	3	Human Anatomy and Physiology-I	3	3	-	-	-
	Modern dispensing Practices subject	3	3	Pharmaceutical Organic Chemistry-I	3	3	-	-	-	-	-	-
	Communication and soft skill development	3	-	-	-	-	-	-	-	-	-	-
Sem-II	Pharmaceutics-II	3	-	Pharmaceutical Organic Chemistry-II	3	3	Human Anatomy and Physiology-II	3	3	Pharmacognosy	3	3
	Dosage Form Design	3	3	Pharmaceutical analysis-I	3	3	-	-	-	-	-	-
Sem-III	Physical Pharmaceutics-I	3	3	Pharmaceutical Biochemistry	3	3	Pharmacology-I	3	-	Pharmacognosy and Phytochemistry-I	3	3
	Pharmaceutical Microbiology	3	3	Pharmaceutical Organic Chemistry-III	3	3	-	-	-	-	-	-
	Environmental Science	2	-	-	-	-	-	-	-	-	-	-
Sem-IV	Physical Pharmaceutics-II	3	3	Pharmaceutical Organic Chemistry-IV	3	3	Pathophysiology and clinical Biochemistry	3	3	Pharmacognosy and Phytochemistry-II	3	3
	Pharmaceutical Engineering	3	-	Pharmaceutical Analysis-II	3	3	-	-	-	-	-	-
Sem-	Industrial Pharmacy-I	3	3	Pharmaceutical Analysis-III	3	3	Pharmacology-II	3	3	Active Pharmaceutical Extraction	3	3

<b>V</b>										Technology		
	Pharmaceutical Business Management and Disaster Management	3	-	Medicinal Chemistry-I	3	3	-	-	-	-	-	-
	-	-	-	Active Pharmaceutical Ingredient Technology	3	-	-	-	-	-	-	-
<b>Sem-VI</b>	Industrial Pharmacy-II	3	3	Pharmaceutical Analysis-IV	3	3	Pharmacology-III	3	3	Natural Product Chemistry	3	3
	Pharmaceutical Biotechnology	3	-	Medicinal Chemistry-II	3	3	-	-	-	-	-	-
	-	-	-	Bioorganic Chemistry and Drug Design	3	-	-	-	-	-	-	-
<b>Sem-VII</b>	Sterile Products	3	3	Pharmaceutical Analysis-V	3	3	Pharmacology-IV	3	3	Natural drug Technology	3	3
	Bio-pharmaceutics and pharmacokinetics	2	-	Medicinal Chemistry-III	3	3	-	-	-	-	-	-
	Pharmaceutical Jurisprudence	3	-	-	-	-	-	-	-	-	-	-
<b>Sem-VIII</b>	Advanced Drug Delivery System	3	3	Pharmaceutical Analysis VI	3	3	Pharmacology V (Including biostatistic)	3	3	Natural products: Commerce, Industry and Regulations	3	-
	Cosmetic Science	3	3	Medicinal Chemistry IV	3	3	-	-	-	-	-	-
	Quality Assurance Techniques	3	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>59</b>	<b>33</b>		<b>54</b>	<b>48</b>		<b>24</b>	<b>21</b>		<b>21</b>	<b>18</b>
<b>Total Number of theory subjects: 53</b>												
<b>Total Number of practical subjects: 40</b>												

**B.PHARM PROGRAM STRUCTURE (2018 PATTERN)**

Sem	Department of Pharmaceutics	Theory (Hrs)	Practical (Hrs)	Department of Pharmaceutical Chemistry	Theory (Hrs)	Practical (Hrs)	Department of Pharmacology	Theory (Hrs)	Practical (Hrs)	Department of Pharmacognosy	Theory (Hrs)	Practical (Hrs)
Sem- I	Pharmaceutics I	3+1	4	Pharmaceutical Inorganic Chemistry	3+1	4	Human Anatomy and Physiology I	3+1	4	-	-	-
	Communication skills	2	2	Pharmaceutical Analysis I	3+1	4				-	-	-
MSC	Remedial Math	2	-	-	-	-	Remedial Biology	2	2	-	-	-
Sem-II	Computer Applications in Pharmacy	3	2	Pharmaceutical Organic Chemistry I	3+1	4	Human Anatomy and Physiology II	3+1	4	-	-	-
	Environmental sciences	3	-	Biochemistry	3+1	4	Pathophysiology	3+1	-	-	-	-
Sem- III	Physical Pharmaceutics I	3+1	4	Pharmaceutical Organic Chemistry II	3+1	4	-	-	-	-	-	-
	Pharmaceutical Microbiology	3+1	4	-	-	-	-	-	-	-	-	-
	Pharmaceutical Engineering	3+1	4	-	-	-	-	-	-	-	-	-
Sem- IV	Physical Pharmaceutics II	3+1	4	Pharmaceutical Organic Chemistry III	3+1	-	Pharmacology I	3+1	4	Pharmacognosy and Phytochemistry I	3+1	4
	-	-	-	Medicinal Chemistry I	3+1	4	-	-	-	-	-	-
Sem-V	Industrial PharmacyI	3+1	4	Medicinal Chemistry II	3+1	-	Pharmacology II	3+1	4	Pharmacognosy and Phytochemistry II-	3+1	4
	Pharmaceutical Jurisprudence	3+1	-									
Sem- VI	Biopharmaceutics and Pharmacokinetics	3+1	-	Medicinal Chemistry III	3+1	4	Pharmacology III	3+1	4	Herbal Drug Technology	3+1	4
	Pharmaceutical Biotechnology	3+1	-	Quality Assurance	3+1	-	-	-	-	-	-	-
	Industrial PharmacyII	3+1	-	Instrumental	3+1	4						

Sem-VII	Pharmacy Practice	3+1	-	Methods of Analysis	-	-	-	-	-	-	-	-
	Novel Drug Delivery System	3+1	-	-	-	-	-	-	-	-	-	-
	Mis Practice School: 12 Hrs											
Sem-VIII	Biostatistics and Research Methodology	3+1	-	-	-	-	-	-	-	-	-	-
	Social and Preventive Pharmacy	3+1	-	-	-	-	-	-	-	-	-	-
MISC.	Pharma Marketing Management	3+1	-	-	-	-	-	-	-	-	-	-
	Pharmaceutical Regulatory Science	3+1	-	-	-	-	-	-	-	-	-	-
	Pharmacovigilance	3+1	-	-	-	-	-	-	-	-	-	-
	Quality Control and Standardization of Herbals	3+1	-	-	-	-	-	-	-	-	-	-
	Computer Aided Drug Design	3+1	-	-	-	-	-	-	-	-	-	-
	Cell and Molecular Biology	3+1	-	-	-	-	-	-	-	-	-	-
	Cosmetic Science	3+1	-	-	-	-	-	-	-	-	-	-
	Experimental Pharmacology	3+1	-	-	-	-	-	-	-	-	-	-
	Advanced Instrumentation Techniques	3+1	-	-	-	-	-	-	-	-	-	-
	Dietary Supplements and Nutraceuticals	3+1	-	-	-	-	-	-	-	-	-	-
Project Work: 12												
<b>Total</b>		<b>74</b>	<b>28</b>		<b>44</b>	<b>32</b>		<b>24</b>	<b>22</b>		<b>12</b>	<b>12</b>
<b>Total Number of theory subjects: 39</b>						<b>Total Number of practical subjects: 24</b>						
<b>Practice School: 12 Hrs/Week</b>						<b>Project Work: 12 Hrs/Week</b>						

## PROGRAM OUTCOMES

1. **Pharmacy Knowledge:** 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.
2. **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.
3. **Problem analysis:** 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.
4. **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
5. **Leadership skills:** 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 wellbeing.
6. **Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
7. **Pharmaceutical Ethics:** 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.
8. **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.
9. **The Pharmacist and society:** 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.

10. **Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
11. **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.