



Gandhinagar Institute of Pharmacy

Academic Regulations & Curriculum

For

Bachelor of Pharmacy (B.Pharm) Program

w.e.f.

AY 2026-27

Preamble

The Bachelor of Pharmacy (B.Pharm.) program is a professional undergraduate degree designed to meet the growing need for qualified pharmacy professionals in healthcare, pharmaceutical industries, research, and regulatory sectors. Rooted in the philosophy of scientific excellence, ethical practice, and patient-centered care, the program provides a strong foundation in pharmaceutical sciences and their practical applications. It aims to develop competent graduates capable of ensuring the safe, effective, and rational use of medicines while contributing to innovation and public health. The program envisions producing skilled, socially responsible, and lifelong learners who can adapt to evolving healthcare and technological advancements. Through its implementation, the institution seeks to prepare pharmacy professionals who can effectively bridge the gap between pharmaceutical science, healthcare delivery, and societal well-being.

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1. Vision & Mission

Vision:

To become frontrunner institute committed to nurture pharmacy professionals by disseminating advanced knowledge and entrepreneurial skills through state of art infrastructure and faculty resources.

Mission:

To strive for bridging the gap between pharmaceutical industries and academia by fostering academic excellence and research.

2. Objectives of the Program

PEO 1: Apply fundamental knowledge of pharmaceutical sciences to work effectively in pharmacy practice, pharmaceutical industry, research, and related healthcare fields.

PEO 2: Demonstrate practical skills in drug formulation, manufacturing, pharmaceutical analysis, quality control, and pharmacy practice.

PEO 3: Use scientific reasoning and problem-solving skills to address challenges related to medicines, drug development, and patient care.

PEO 4: Practice pharmacy with ethical responsibility, good communication, teamwork, and concern for patient safety and public health.

PEO 5: Pursue continuous learning and professional development to keep pace with advances in pharmaceutical sciences and healthcare.

3. Program Outcomes (POs)

PO1. Pharmacy Knowledge

Apply comprehensive knowledge of pharmaceutical sciences, biomedical sciences, pharmacology, pharmacognosy, pharmaceutical chemistry, pharmacy practice, and manufacturing processes to understand drug actions, disease mechanisms, and therapeutic interventions and solve professional problems across diverse pharmacy domains.

PO2. Problem Analysis, Critical Thinking and Evidence-Based Decision Making

Identify, formulate, analyze, and interpret complex pharmaceutical problems using principles of scientific inquiry, critical thinking, biostatistics, and evidence-based reasoning to arrive at defensible solutions and informed decision-making.

PO3. Pharmaceutical Skills & Practice

Demonstrate proficiency in formulation development, analysis, quality assurance, pharmacovigilance, clinical pharmacotherapy, and pharmacy practice through laboratory work, simulations, internships, and experiential learning.

PO4. Modern Tools, AI & Digital Competence

Select, apply, and evaluate modern pharmaceutical tools, analytical instruments, digital technologies, artificial intelligence, machine learning, and computational techniques with awareness of their limitations and ethical use.

PO5. Research & Innovation

Design and conduct basic research, analyze data, interpret results, and contribute to innovation through research projects, startup initiatives, and problem-based learning relevant to industry, healthcare, and society.

PO6. Professional Ethics & Human Values

Apply ethical principles, professional integrity, regulatory frameworks, intellectual property rights, and universal human values while addressing professional, legal, and societal responsibilities in pharmacy practice.

PO7. Communication & Interpersonal Skills

Communicate effectively with patients, healthcare professionals, industry personnel, and society through clear documentation, reports, presentations, counseling, teamwork, and interdisciplinary collaboration.

PO8. Leadership, Management & Entrepreneurship

Demonstrate leadership, teamwork, planning, and managerial skills in pharmaceutical organizations, healthcare systems, quality systems, and entrepreneurial ventures, including innovation and startup ecosystems.

PO9. Pharmacist & Society

Evaluate public health, patient safety, legal, and societal issues related to pharmacy practice and contribute responsibly to healthcare delivery, rational use of medicines, and improvement of community health outcomes.

PO10. Environment and sustainability:

Recognize and address the environmental impact of pharmaceutical manufacturing, use, and disposal, and promote environmentally responsible practices, green pharmacy principles, and sustainable healthcare aligned with the United Nation's Sustainable Development Goals (SDGs).

PO11. Life-Long Learning & Professional Development

Recognize the need for continuous learning and demonstrate the ability to engage in self-directed, life-long learning to adapt to technological advancements, evolving healthcare needs, and professional growth.

4. Program Details**4.1 Program Structure & Duration**

- Duration: 4 Years
- Semesters: 8
- Mode: Offline & Full Time
- Credit Structure: 193 (As per new syllabus implemented AY 2026-27 onwards)
- Medium of Instruction: English
- Intake: 100
- Fees: As per FRC

4.2 Eligibility Criteria for Admission

Candidate must have passed 12th science with Physics, Biology, and Biology (or Maths),

4.3 Admission Procedure**4.3.1 First year B. Pharm:**

i. A candidate shall have passed the 10+2 examination in science stream conducted by the respective State or Central Government authorities, or any equivalent examination recognized by bodies such as the Association of Indian Universities (AIU) or the Council of Boards of School Education in India (COBSE), including wings such as IGNOU and NIOS, with English as one of the subjects and with Physics and Chemistry as compulsory subjects, along with either Mathematics or Biology.

ii. Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

Admission process is fully governed by the Admission Committee for Professional Courses (ACPC), Ahmedabad in the ratio of 50:50. GIP strictly follow the guidelines of ACPC. Students are enrolled in B.Pharm course based on final list provided by ACPC.

4.3.2. B. Pharm lateral entry (to third semester):

Candidate shall have passed in D. Pharm. course from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act.

4.4 Credit framework

4.4.1. Theory and Practical courses

Courses are broadly classified as Theory, Practical, Project and Internship. Theory (T) courses consist of lecture (L) hours, while Practical (P) courses consist of hours spent in the laboratory. The Credits (C) assigned to a course dependent on the number of instructional hours per week and are calculated using a multiplier of one (1) for lecture hours, and a multiplier of one-half (1/2) for practical (laboratory) hours. For example, a theory course having three lectures per week throughout the semester carries 3credits. Similarly, a practical course with four laboratory hours per week throughout semester carries 2 credits. If the calculated credit value results in a fraction of 0.5 or below, the lower integer value will be assigned as the credit. Every 30 hours spent on internship (I) and projects shall be considered equivalent to 1 credit.

4.4.2. Minimum credit requirements

The minimum credit points required for award of a B. Pharm. degree is 193 (mentioned in Table I(a) & I(b)). These credits are distributed across Theory courses, Practical courses, Internship and Project over the duration of eight semesters. The semester-wise distribution of credits is presented in Table IX. Courses generally progress in sequences, building competencies and their positioning indicate certain levels of academic maturity on the part of the learners. Learners are expected to follow the semester-wise schedule of courses given in the syllabus.

The lateral entry students shall take additional courses, namely Healthcare Psychology and Communication Skills (Theory and Practical) and Basics of Python Programming for Pharmaceutical Sciences (Theory) during Semester III, and Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory) during Semester IV of the programme. The lateral entry student shall be awarded 47 credit points, equivalent to the cumulative credits earned as per the scheme of their Diploma in Pharmacy (D. Pharm.) programme, upon successful completion of the above-mentioned courses. Out of the total 47 credits, 41 credits shall be accounted for the Diploma programme, and the remaining 6 credits shall be awarded for the above-mentioned additional courses. The 41 credits accounted for the lateral entry students shall be recorded in the Semester III marks sheet.

Table I(a): Semester I to VIII with respective credit points.

Sr. No.	Semester	Credit
1	I	21
2	II	26
3	III	25
4	IV	23
5	V	22
6	VI	26
7	VII	26
8	VIII	24
Grand Total		193

Table I(b): Semester I to VIII with respective credit points.

Sr. No.	Particulars	Credit
1	Pharmaceutics	52
2	Pharmacology	40
3	Pharmaceutical Chemistry & Quality Assurance	39
4	Pharmacognosy	20
5	Other (Computer software based learning & Environmental sciences)	11
6	AEC	5
7	VAC	2
8	SEC	2
9	Innovation & startup	2
10	Internship	8
11	Research Project	12
Total		193

Earning total credits [193] as mentioned above are mandatory for award of the degree. However, Institute/University has the liberty to offer additional courses as per their mandates or may also offer additional credits through various MOOCs upon approval of their respective academic council.

5. Curriculum Structure

The course of study for B. Pharm shall include Semester wise Theory & Practical as given in Tables – II to IX. The number of hours allotted to each theory and practical course in any semester shall not be less than that shown in Tables – II to IX.

Table-II: Course of study for semester I

Course Code	Name of the course	No. of hours per week (L/P)	Credit points

BPH101T	Basics of Python Programming for Pharmaceutical Sciences (Theory)	2	2
BPH102T	General Pharmacy (Theory)	3	3
BPH103T	Healthcare Psychology and Communication Skills (Theory)	1	1
BPH104T	Human Anatomy, Physiology and Pathophysiology I (Theory)	4	4
BPH105T	Introduction to Pharmacognosy (Theory)	3	3
BPH106T	Pharmaceutical Inorganic and Analytical Chemistry (Theory)	3	3
BPH102P	General Pharmacy (Practical)	3	1
BPH103P	Healthcare Psychology and Communication Skills (Practical)	2	1
BPH104P	Human Anatomy, Physiology and Pathophysiology I (Practical)	3	1
BPH105P	Introduction to Pharmacognosy (Practical)	3	1
BPH106P	Pharmaceutical Inorganic and Analytical Chemistry (Practical)	3	1
Total		30	21

Table-III: Course of study for semester II

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BPH201T	Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory)		2	2
BPH202T	Biochemistry (Theory)		3	3
BPH203T	Human Anatomy, Physiology and Pathophysiology II (Theory)		4	4
BPH204T	Pharmaceutical Organic Chemistry (Theory)		4	4
BPH205T	Pharmacognosy and Phytochemistry (Theory)		4	4
BPH206T	Physical Pharmaceutics (Theory)		3	3
BPH202P	Biochemistry (Practical)		3	1
BPH203P	Human Anatomy, Physiology and Pathophysiology II (Practical)		3	1
BPH204P	Pharmaceutical Organic Chemistry (Practical)		3	1
BPH205P	Pharmacognosy and Phytochemistry (Practical)		3	1
BPH206P	Physical Pharmaceutics (Practical)		3	1
BPH207P SEC*	BP207P SEC1	Communication Skills	2	1
	BP207P SEC2	Mental Well-Being, Stress & Conflict Management		

	BP207P SEC3	Fundamentals of Computer Operations		
Total			37	26

Table-IV: Course of study for semester III

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BPH301T	Introduction to Machine Learning in Pharmaceutical Sciences (Theory)		2	2
BPH302T	Environmental Sciences (Theory)		1	1
BPH303T	Ethics and Universal Human Values (Theory)		1	1
BPH304T	General Pharmacology (Theory)		3	3
BPH305T	Heterocyclic Compounds and Stereochemistry (Theory)		3	3
BPH306T	Pharmaceutical Dosage Forms I (Theory)		3	3
BPH307T	Pharmaceutical Engineering (Theory)		3	3
BPH308T	Pharmaceutical Microbiology (Theory)		3	3
BPH304P	General Pharmacology (Practical)		4	2
BPH305P	Heterocyclic Compounds and Stereochemistry (Practical)		4	2
BPH306P	Pharmaceutical Dosage Forms I (Practical)		3	1
BPH309P AEC*	BP309P AEC1	Nutraceuticals and Functional Foods	2	1
	BP309P AEC2	Food Analysis		
	BP309P AEC3	Yoga and Life Sciences		
Total			32	25

Table-V: Course of study for semester IV

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BPH401T	Herbal Drug Technology (Theory)		3	3
BPH402T	Medicinal Chemistry (Theory)		3	3
BPH403T	Pharmaceutical Biotechnology (Theory)		3	3
BPH404T	Social Pharmacy and Public Health (Theory)		2	2
BPH405T	Systemic Pharmacology I (Theory)		3	3
BPH401P	Herbal Drug Technology (Practical)		3	1
BPH402P	Medicinal Chemistry (Practical)		3	1
BPH403P	Pharmaceutical Biotechnology (Practical)		3	1
BPH404P	Social Pharmacy and Public Health (Practical)		2	1
BPH405P	Systemic Pharmacology I (Practical)		3	1
BPH406I	Internship (Mandatory)		8	4

Total		28	23
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Table-VI: Course of study for semester V

Course Code	Name of the course	No. of hours per week (L/P)	Credit points
BPH501T	Biomedical Chemistry (Theory)	3	3
BPH502T	Industrial Pharmacognosy (Theory)	3	3
BPH503T	Innovation and Startup Ecosystem (Theory)	2	2
BPH504T	Pharmaceutical Dosage Form II (Theory)	2	2
BPH505T	Pharmaceutical Quality Assurance (Theory)	3	3
BPH506T	Systemic Pharmacology II (Theory)	3	3
BPH501P	Biomedical Chemistry (Practical)	4	2
BPH502P	Industrial Pharmacognosy (Practical)	3	1
BPH504P	Pharmaceutical Dosage Form II (Practical)	3	1
BPH506P	Systemic Pharmacology II (Practical)	4	2
Total		30	22

Table-VII: Course of study for semester VI

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BPH601T	Advanced Pharmacognosy (Theory)		3	3
BPH602T	Biopharmaceutics and Pharmacokinetics (Theory)		3	3
BPH603T	Intellectual Property Rights (Theory)		2	2
BPH604T	AI applications in Pharmaceutical Sciences (Theory)		2	2
BPH605T	Pharmaceutical Analysis (Theory)		3	3
BPH606T	Pharmaceutical Jurisprudence (Theory)		3	3
BPH607T AEC*	BP607T AEC1	Green Chemistry	1	1
	BP607T AEC2	Materiovigilance and Hemovigilance		
	BP607T AEC3	Scientific Writing		
	BP607T AEC4	Drug Store and Business Management		
	BP607T AEC5	Career Building in Cultivation of Medicinal Plants		
	BP607T AEC6	Active Pharmaceutical Ingredients and Excipient Sciences		
BPH602P	Biopharmaceutics and Pharmacokinetics (Practical)		3	1

BPH605P	Pharmaceutical Analysis (Practical)		4	2
BPH608P SEC*	BP605P SEC1	Computer-Aided Drug Design	2	1
	BP605P SEC2	Analytical Method Development and Validation		
	BP605P SEC3	Principles of Preclinical Studies		
BPH609P VAC*	BP609P VAC1	Professional Skills	2	1
	BP609P VAC2	Process Analytical Technology (PAT) and QbD in Formulation Science		
BPH610I	Internship (Mandatory)		8	4
Total			28	24

Table-VIII: Course of study for semester VII

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BPH701T	Biostatistics Research methodology (Theory)		3	3
BPH702T	Cosmetics and Cosmeceuticals (Theory)		2	2
BPH703T	AI in Clinical applications (Theory)		2	2
BPH704T	Modern Analytical Techniques (Theory)		3	3
BPH705T	Pharmacovigilance (Theory)		3	3
BPH706T	Pharmacy Practice (Theory)		3	3
BPH707T	Regulatory Affairs (Theory)		2	2
BPH708T AEC	BP708T AEC1	Current Good Manufacturing Practices (cGMP)	1	1
	BP708T AEC2	Pharmaceutical Automation		
	BP708T AEC3	Modern Techniques in Cellular Biology		
	BP708T AEC4	Medical Devices		
	BP708T AEC5	Transformation of Food Waste into Medicinal Products		
	BP708T AEC6	Biosimilars, Vaccines & Macromolecules		
BPH704P	Modern Analytical Techniques (Practical)		3	1
BPH709RP	Research Project		-	6
Total			22	26

Table IX: Course of study for semester VIII

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BPH801T	Ethical Considerations and Translational Applications of AI in Pharmacy (Theory)		2	2
BPH802T	Clinical Pharmacotherapeutics (Theory)		2	2
BPH803T	Industrial Pharmacy and Facility Design (Theory)		3	3
BPH804T	Pharmaceutical Management (Theory)		2	2
BPH805T	Sterile Dosage Forms and Novel Drug Delivery System (Theory)		3	3
BPH806T AEC*	BP806T AEC1	Pharmaceutical Packaging	2	2
	BP806T AEC2	Supply Chain Management		
	BP806T AEC3	Industrial Safety and Waste Management		
	BP806T AEC4	Traditional Healing Practices of India		
	BP806T AEC5	Futuristic Pharma through AR/VR: Pharma 4.0		
	BP806T AEC6	Herbal Cosmetics for Industry Perspective		
BPH807P	Sterile Dosage Forms and Novel Drug Delivery System (Practical)		4	2
BPH808P	Pharmaceutical Marketing Skills (Practical)		2	1
BPH809P VAC*	BP809P VAC1	Cleaning Validation	2	1
	BP809P VAC2	Basic Training in Aseptic Handling Techniques		
	BP809P VAC3	Impurity Profiling		
BPH810RP	Research Project		-	6
Total			22	24

Note: Earning total credits [193] as mentioned above are mandatory for award of the degree. However, Institute/University has the liberty to offer additional courses as per their mandates or may also offer additional credits through various MOOCs upon approval of their respective academic council.

6. Teaching, Learning & Evaluation

6.1 Teaching Methodology

The B.Pharm program follows a student-centered teaching methodology that combines theoretical knowledge with practical learning. Lectures, laboratory experiments, and interactive classroom discussions are used to enhance understanding of pharmaceutical sciences. Modern teaching aids such as presentations, e-learning resources, and case studies support effective learning. Industrial visits, seminars, workshops, and project-based activities provide exposure to real-world pharmaceutical practices. Continuous assessment through

assignments, quizzes, and practical evaluations helps monitor student progress. The methodology emphasizes critical thinking, problem-solving skills, professional ethics, and lifelong learning.

6.2 Attendance Rules

A candidate must maintain a minimum of 75% attendance in each individual course. Attendance for theory and practical components shall be considered separately. Only candidates who satisfactorily complete the prescribed course requirements shall be eligible to appear for the respective examinations. Attendance marks will be included in the final compiled marksheet of internal examination of each theory subject (mentioned in Table X).

Table–X: Guidelines for the allotment of marks for attendance

Percentage of Attendance	Theory			Practical
	4 Credit	3 Credit	2 or 1 Credit	
90 – 100	4	3.5	2	2
85 – 89	3	2.5	1.5	1.5
75 – 84	2	1.5	1	1
Less than 75	0	0	0	0

6.3 Examination and Evaluation System

6.3.1 Evaluation Components

The evaluation consists of Internal Evaluation and End Semester Examination (ESE) Internal Evaluation include Continuous mode of Internal assessment and Sessional examination shall be awarded as per the scheme given below (mentioned in Table XI).

Table–XI: Scheme for awarding internal assessment: Continuous mode and Sessional

a. Theory – Internal assessment pattern of marks distribution

Theory		Internal assessment pattern of marks distribution			
Credit Type	Max. Marks	Total	Attendance (Refer Table–XII) and Student–Teacher Interaction	Academic Activities (Average of any three: quiz, assignment, open book test, field work, group discussion, seminar, etc.)	Sessional (Average of two tests) Duration 1 Hour
4	100	40	10	10	20
3	75	30	7.5	7.5	15
2 or 1	50	20	05	05	10

b. Practical– Internal assessment pattern of marks distribution

Practical		Internal assessment pattern of marks distribution			
Credit Type	Max. Marks	Total	Attendance (Refer Table–XII) and Student–Teacher	Based on Practical Records, Regular viva voce, etc.	Sessional (Average of two tests) Duration – As per allotted hours#)

			Interaction		
2 or 1	50	20	05	05	10

For practical courses (core as well as elective), those having four hours per week shall have a four- hour duration for the sessional and end-semester examinations. Practical courses with less than four hours per week shall have a three-hour duration for the sessional and end-semester examinations.

Two Sessional exams shall be conducted for each theory / practical course as per the schedule fixed by the college(s)/University. The scheme of question paper for theory and practical Sessional examinations is given in Table XII– XIII below.

Table–XII: Internal Assessment Question Paper Pattern (Theory)

Type of questions	4 Credit Course	3 Credit Course	2 or 1 Credit Course
I. Multiple Choice Questions (MCQs) Or Objective Type Questions	4×1 Mark each or 2×2 Marks each (Compulsory)	2×1 Mark each (Compulsory)	2×1 Mark each (Compulsory)
II. Short Answers	2×3 Marks each (2 out of 3)	2×3 Marks each (2 out of 3)	1×3 Marks each (1 out of 2)
III. Long Answers	1×10 Marks each (1 out of 2)	1×7 Marks each (1 out of 2)	1×5 Marks each (1 out of 2)
Max. Marks	20	15	10
Duration	1 Hour	1 Hour	1 Hour

Table–XIII: Internal Assessment Question Paper Pattern (Practical)

Type of questions	2 or 1 Credit Course
Synopsis	2
Major Experiment	4
Minor Experiment	2
Viva voce	2
Max. Marks	10
Duration	As per the allotted hours in scheme

The average marks of two Sessional exams shall be computed for internal assessment as per the requirements given in Table – XI.

The End Semester Examinations for each theory and practical course through semesters I to VIII shall be conducted by the university. (Table-XIV).

Table-XIVa: Sessional and End Semester Marks for Semester I

Cours e Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessiona l Exam (Marks)	Sessional Duration	Internal Total	End Semeste r Marks	End Sem Exam Duration	Total Mark s
BP101T	Basics of Python Programming for Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP102T	General Pharmacy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP103T	Healthcare Psychology and Communication Skills (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP104T	Human Anatomy, Physiology and Pathophysiology I (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP105T	Introduction to Pharmacognosy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP106T	Pharmaceutical Inorganic and Analytical Chemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP107P	General Pharmacy (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

BP108P	Healthcare Psychology and Communication Skills (Practical)	1	10	10	3 Hr	20	30	3Hr	50
BP109P	Human Anatomy, Physiology and Pathophysiology I (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP110P	Introduction to Pharmacognosy (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP111P	Pharmaceutical Inorganic and Analytical Chemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

Table-XIVb: Sessional and End Semester Marks for Semester II

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP201T	Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP202T	Biochemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP203T	Human Anatomy, Physiology and Pathophysiology II (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP204T	Pharmaceutical Organic Chemistry (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP205T	Pharmacognosy and Phytochemistry (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP206T	Physical Pharmaceutics (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP207P	Biochemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

BP208P	Human Anatomy, Physiology and Pathophysiology II (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP209P	Pharmaceutical Organic Chemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP210P	Pharmacognosy and Phytochemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP211P	Physical Pharmaceutics (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP212P	SEC – Elective 1 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

Table-XIVc: Sessional and End Semester Marks for Semester III

Cours e Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessiona l Duratio n	Intern al Total	End Semeste r Marks	Exam Duratio n	Total Marks
BP301T	Introduction to Machine Learning in Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP302T	Environmental Science (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP303T	Ethics and Universal Human Values (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP304T	General Pharmacology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP305T	Heterocyclic Compounds and Stereochemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP306T	Pharmaceutical Dosage Forms I (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP307T	Pharmaceutical Engineering (Theory)	3	15	15	1 Hr	30	45	2 Hr	75

BP308T	Pharmaceutical Microbiology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP309P	General Pharmacology (Practical)	2	10	10	4 Hr	20	30	4 Hr	50

BP310P	Heterocyclic Compounds and Stereochemistry (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP311P	Pharmaceutical Dosage Forms I (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP312P	AEC – Elective 2 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

Table-XIVd: Sessional and End Semester Marks for Semester IV

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP401T	Herbal Drug Technology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP402T	Medicinal Chemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP403T	Pharmaceutical Biotechnology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP404T	Social Pharmacy and Public Health (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP405T	Systemic Pharmacology I (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP406P	Herbal Drug Technology (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP407P	Medicinal Chemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

BP408P	Pharmaceutical Biotechnology (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
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BP409P	Social Pharmacy and Public Health (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP410P	Systemic Pharmacology I (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP411I	Internship (Mandatory)	4	Refer Section 7.3	—	—	—	100	4 Hr	100

Table-XIVe: Sessional and End Semester Marks for Semester V

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP501T	Biomedical Chemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP502T	Industrial Pharmacognosy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP503T	Innovation and Startup Ecosystem (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP504T	Pharmaceutical Dosage Forms II (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP505T	Pharmaceutical Quality Assurance (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP506T	Systemic Pharmacology II (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP507P	Biomedical Chemistry (Practical)	2	10	10	4 Hr	20	30	4 Hr	50

BP508P	Industrial Pharmacognosy (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP509P	Pharmaceutical Dosage Forms II (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP510P	Systemic Pharmacology II (Practical)	2	10	10	4 Hr	20	30	4 Hr	50

Table-XIVf: Sessional and End Semester Marks for Semester VI

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP601T	Advanced Pharmacognosy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP602T	Biopharmaceutics and Pharmacokinetics (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP603T	Intellectual Property Rights (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP604T	AI Applications in Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP605T	Pharmaceutical Analysis (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP606T	Pharmaceutical Jurisprudence (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP607T	AEC – Elective 3 (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50

BP608P	Biopharmaceutics and Pharmacokinetics (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP609P	Pharmaceutical Analysis (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP610P	SEC – Elective 4 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP611P	VAC – Elective 5 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP612I	Internship (Mandatory)	4	Refer Section 7.3	–	–	–	100	4 Hr	100

Table-XIVg: Sessional and End Semester Marks for Semester VII

Cours e Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Intern al Total	End Semester Marks	Exam Duration	Total Mark s
BP701T	Biostatistics and Research Methodology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP702T	Cosmetics and Cosmeceuticals (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP703T	AI in Clinical Applications (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP704T	Modern Analytical Techniques (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP705T	Pharmacovigilance (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP706T	Pharmacy Practice (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP707T	Regulatory Affairs (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50

BP708T	AEC – Elective 6 (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP709P	Modern Analytical Techniques (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP710RP	Research Project	6	Refer Section 6.5	–	–	–	150	4 Hr	150

Table-XIVh: Sessional and End Semester Marks for Semester VIII

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP801T	Ethical Considerations and Translational Applications of AI in Pharmacy (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP802T	Clinical Pharmacotherapeutics (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP803T	Industrial Pharmacy and Facility Design (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP804T	Pharmaceutical Management (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP805T	Sterile Dosage Forms and Novel Drug Delivery System (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP806T	AEC – Elective 7 (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP807P	Pharmaceutical Marketing Skills (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

BP808P	Sterile Dosage Forms and Novel Drug Delivery System (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP809P	VAC – Elective 8 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP810RP	Research Project	6	Refer Section 6.5	–	–	–	150	4 Hr	150

6.3.2 Suggested Weightage

The weightage of internal and external marks has been structured according to the credit point of the particular subject as mentioned in below table (Table XV).

Table XV: Internal and External examination marks structure based on credit point

Theory				
Sr. No.	Credit	Internal Marks	External Marks	Total Marks
1	4	40	60	100
2	3	30	45	75
3	2 or 1	20	30	50
Practical				
1	2 or 1	20	30	50

6.3.3 Passing Standards

- Minimum 50% marks in total internal and external marks in theory and practical examinations.
- Separate passing in the internal and external is not required in theory and practical examinations.

6.4 Grading System

Based on the performances, each student shall be awarded a final letter grade at the end of the semester for each course. The letter grades and their corresponding grade points are given in Table – XVI.

Table–XVI: Letter grades and grade points equivalent to percentage of marks and performance

Percentage of Marks Obtained	Letter Grade	Grade Point
90 – 100	AA	10
80.00 – 89.99	AB	09
70.00 – 79.99	BB	08
60.00 – 69.99	BC	07
50.00 – 59.99	CC	06
Less than 50	FF	00
Absent	FF	00

A student who remains absent for any end semester examination shall be assigned a letter grade of FF and a corresponding grade point of zero. He/she should reappear for the said evaluation/examination in due course. Such rules are also applicable for those students who fail to register for examination(s) of any course in any semester.

6.5 Dissertation / Project Work

All students shall undertake a project under the supervision of a teacher and submit a report, preferably with the involvement of an external mentor from Industry, Hospital, NABL or CDSCO-approved labs, or an Allied/Interdisciplinary field. The project shall be carried out

in groups not exceeding three members. The project report must be submitted in triplicate as a typed and bound copy of no less than 25 pages. Internal and external examiners appointed by the University shall evaluate the project during the practical examinations of the respective semester(s), and students shall be evaluated in groups. Additionally, students are permitted the option to pursue a continuous research theme initiated in the seventh semester and extending through the eighth semester. Under this provision, the specific project milestones achieved by the conclusion of the seventh semester shall undergo formal evaluation by the appointed examiners during that semester's final examination.

The projects shall be evaluated as per the criteria given in **Table XVII** and **Table XVIII** below.

Table - XVII: Evaluation of Dissertation Book

Sl. No.	Evaluation Criteria	Maximum Marks
1	Objectives of the work undertaken	10
2	Methodology adopted	20
3	Results and discussion	20
4	Conclusion and outcome	10
	Total	60

Table XVIII: Evaluation of Dissertation Presentation

Sl. No.	Evaluation Criteria	Maximum Marks
1	Presentation of work	40
2	Communication skills	20
3	Question and answer skills	30
	Total	90

Explanation: The 60 marks assigned to the dissertation book shall be same for all the students in a group. However, the 90 marks assigned for presentation shall be awarded based on the performance of individual students in the given criteria.

7. Rules & Regulations

7.1 Rules for Promotion

i. A student shall be declared PASS and eligible to receive a grade in a course of the B.Pharm. programme if he/she secures at least 50% marks in that particular course, including internal assessment. For example, to be declared PASS and to receive a grade, the student must secure a minimum of 50 marks out of a total of 100, inclusive of internal assessment marks (continuous internal assessment and sessional examination marks) and the end-semester theory examination marks as applicable

ii. Carry forward of internal assessment marks: In case a student fails to secure the minimum 50% in any Theory or Practical course as specified in 12, then he/she shall reappear for the end semester examination of that course. However, his/her marks of the Internal Assessment shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

iii. Improvement of internal assessment: A student shall have the opportunity to improve his/her performance only once in the Sessional exam component of the internal assessment. The re-conduct of the Sessional exam shall be completed within that particular semester only.

The re-conduct of sessional examinations for failed candidates shall be conducted only once for the purpose of improving their sessional marks, without changing their continuous internal assessment.

7.2 Maximum Duration for Completion

The maximum period permitted for completion of the Programme shall be twice the prescribed duration of the Programme. Any student who fails to complete the Programme within this stipulated period shall be required to discontinue the course.

A candidate seeking re-admission to the programme after a break in studies must obtain approval from the university by paying the prescribed condonation fee. Condonation will not be granted if the break in study exceeds two years or if the student fails to complete the programme within the maximum permitted duration ($N \times 2$).

7.3 Internship Guidelines

Every candidate shall be required to complete a minimum of 240 hours of practical training, spread over a period of two semesters, in a Pharmaceutical/ Cosmetics/ Medical Devices/ Food Industry, or in a Hospital/Community Pharmacy, or any other relevant field as per the prescribed course content. He/she has to submit two internship reports which will be evaluated separately.

Certificate and Report submission: 75 Marks

Presentation and Discussion: 25 Marks

Total: 100 Marks

7.4 Discipline Rules

Students shall maintain discipline, professional ethics, and proper conduct within the institution, during field visits, internships, industry interactions, examinations, and all academic activities. Students are expected to attend classes regularly, follow institutional rules and regulations, respect faculty members, staff, fellow students, and institutional property, and maintain academic integrity in assignments, projects, and examinations.

Any form of misconduct, ragging, indiscipline, use of unfair means in examinations, damage to institutional property, harassment, or behaviour affecting the academic environment shall be treated seriously and may result in disciplinary action including warning, suspension, cancellation of examination, withholding of results, or expulsion from the program as per University rules and UGC regulations. Students shall also comply with all safety, ethical, and professional standards prescribed by the institution from time to time.

7.5 Anti-Ragging Policy

The program shall strictly follow:

- UGC Anti-Ragging Regulations
- Anti-Ragging Affidavit requirements
- Institutional disciplinary procedures

Ragging in any form is strictly prohibited.

7.6 Ethical use of Technology and AI Tools

Students are encouraged to use various digital tools with academic integrity and ethically. Students will learn different digital software like Python, Expharm, etc.

8. Student Support

Gandhinagar Institute of Pharmacy provides support to B.Pharm students through academic mentoring, remedial coaching, career guidance, competitive exam preparations and placement assistance. Students benefit from industrial visits, internships, research opportunities, and access to well-equipped laboratories and library resources. The institute also offers scholarships, counseling services, soft-skill development programs, and a robust mentor-mentee system to ensure holistic growth. Various co-curricular, extracurricular, and community engagement activities help students develop leadership, professional competence, and social responsibility. These initiatives collectively prepare students for successful careers in pharmacy, research, healthcare, and entrepreneurship.

8.1 Industry Collaboration

Gandhinagar Institute of Pharmacy actively collaborates with pharmaceutical industries, healthcare organizations, and research institutions to bridge the gap between academia and industry. These collaborations provide B.Pharm students with industrial visits, internships, hands-on training, expert lectures, and placement opportunities, enhancing their employability and professional skills. Faculty members benefit through collaborative research projects, industrial training, consultancy activities, and knowledge exchange programs. Such partnerships strengthen the institute's academic and research ecosystem, promote innovation, and ensure that the curriculum remains aligned with current industry requirements and emerging pharmaceutical trends.

8.2 Research and Consultancy

Gandhinagar Institute of Pharmacy promotes a strong research and consultancy culture to enhance academic excellence and innovation. Faculty members actively engage in research projects, scientific publications, patent activities, and consultancy services in collaboration with industry and academic organizations. B.Pharm students are encouraged to participate in SSIP and other research projects, poster presentations, and scientific events, fostering analytical thinking and problem-solving skills. These activities strengthen industry-academia interactions, generate new knowledge, and contribute to the overall growth, reputation, and academic advancement of the institute.

8.3 Library and Laboratory Facilities

Gandhinagar Institute of Pharmacy provides a very rich library and modern well-equipped laboratory facilities to support effective teaching, learning, and research.

The library houses a rich collection of textbooks, reference books, national and international journals, and digital resources that facilitate continuous academic enrichment for students and faculty. This includes 1026 Titles (D.Pharm- 403 & B.Pharm-623) and 3320 volumes (D.Pharm- 1233 & B.Pharm- 2087) (Table XIX).

Table XIX: Library book details subject wise

Subject	D.Pharm		B.Pharm	
	Title	Volume	Title	Volume
Pharmaceutics	110	373	170	579
Pharmaceutical Chemistry	106	279	141	551
Pharmacology	75	206	143	381
Pharmacognosy	33	124	58	187
Pharmaceutical Analysis	43	109	51	214

Other(Environmental Science, Computer Application in Pharmacy, Communication Skills, Remedial Mathematics etc.)	20	84	30	92
Microbiology & Bio-Technology	11	40	20	54
Social Pharmacy	5	18	5	24
Reference			5	5
Total	403	1233	623	2087

GIP is having advanced laboratories with modern instruments enable hands-on training, practical skill development, and research activities in various pharmaceutical disciplines. These resources foster scientific inquiry, enhance academic performance, and contribute significantly to the professional growth of students, faculty development, and the overall excellence of the institute (Table XX).

Table XX: Infrastructure details

<u>Laboratory</u>			
Sr. No.	Room no.	Particulars	Course
1	B102	P'cology	B.Pharm
2	B103	Pharmaceutics	B.Pharm
3	B104	Pharmaceutics	D.Pharm
4	B105	Machine room	B.Pharm
5	B201	P'cognosy	B.Pharm
6	B202	Bioichem/CP/HPCP	D.Pharm
7	B203	Model Pharmacy	D.Pharm
8	B204	P'Analysis	B.Pharm
9	B205	Computer lab	B.Pharm
10	B206	P'Chemistry	D.Pharm
11	B207	P'Chemistry	B.Pharm
12	B301	Pharmaceutics	B.Pharm
13	B302	Central instrument room	B.Pharm
14	B303	P'Chemistry	B.Pharm
15	B304	P'cology	B.Pharm
<u>Classroom</u>			
Sr. No.	Room no.	Particulars	Course
1	B305	Classroom-I	B.Pharm
2	B306	Classroom-II	B.Pharm
3	B307	Classroom-I	D.Pharm
4	B308	Classroom-II	D.Pharm
5	B208	Smart classroom	B.Pharm

8.4 Student Counselling and Mentoring

It is necessary to monitor the personality of students (Behaviour, Interest, Attitude, performance, Goals, career objectives and hidden skills properly to develop the healthy and holistic environment for the education. This favourable environment can be developed through mentorship.

The purpose of a mentorship is to help the students to grow as a person and become the best version of them. This may involve helping students achieve their personal or career goals, introducing them to new ways of thinking, challenging their limiting assumptions, sharing valuable life lessons, and much more.

At Gandhinagar Institute of Pharmacy, we are following a unique mentoring system through mentorship system. All mentors are informed to take follow up of mentorship activities regularly. The department facilitate academic counselling, mentoring, career guidance, research support, and skill development activities to assist students in their academic progression and professional growth. Opportunities for interaction with industry experts, participation in workshops, seminars, field visits, training programs, and extracurricular activities aimed at enhancing employability, leadership qualities, communication skills, and overall personality development are also provided to the students. Necessary support mechanisms for addressing academic and personal concerns also be made available as per institutional policies.

For the effectiveness of the mentorship program, following steps are being followed.

- Distribution of students to mentors.
- Updation of the data in specified formats and files.
- Regularly updation of the mentor-mentee meeting details. At least 2 meetings/month is conducted to observe the behavior and performance of students regularly.
- Maintenance of all the records of meetings and steps taken if any.

The Mentoring system and student support system is as follow.

- Students will be allocated for mentoring to a faculty at the beginning of the academic year. This faculty acts as a mentor and takes the responsibility of mentoring students till the completion of the course.
- During mentoring faculty focus on overall development of students and students can discuss his/her interests, idea, suggestions, and problems if any during academic sessions.
- A file with all related documents known as Mentor file is maintained by each mentor for each student which includes their personal record, leave reports, suggestions, remarks, student documents, mid-Sem marks, class test marks, achievements, and apology letter.
- A Mentor-Mentee meeting will be carried out once or twice in a month with various Point of discussion regarding curricular, co-curricular and extra-curricular activities with students and regular updates.
- Mentors will continuously observe the mentee's overall performance and contact their parents if required.
- Mentors encourage students to participate in different Research, Social, Extra & co-curricular activities.
- Academic and moral support is given to slow learners.

8.5 Placement and Career Development

The department also promotes placement assistance and career development activities for students through industry interaction, professional networking, training programs, internships, and campus engagement initiatives. Various efforts also made to establish linkages with related industries/institutions to facilitate internships, live projects, industrial exposure, and employment opportunities for students. Career development activities such as aptitude training, resume preparation, soft skill development, entrepreneurship guidance, certification programs, expert sessions, and placement-oriented workshops organized to enhance professional competency and employability of students.

9. Program Credibility

The B.Pharm program at Gandhinagar Institute of Pharmacy is designed in accordance with the guidelines of the Pharmacy Council of India and affiliated university requirements, ensuring high academic standards and professional relevance. The curriculum integrates theoretical knowledge, practical training, research exposure, and industry-oriented learning to prepare competent pharmacy professionals. Continuous quality improvement through outcome-based education, stakeholder feedback, and academic audits enhances program effectiveness. The credibility of the program strengthens students' career prospects, supports faculty excellence, and contributes to the institute's reputation as a center for quality pharmaceutical education.

9.1 Executive Summary

Gandhinagar Institute of Pharmacy is committed to provide quality pharmaceutical education through a blend of academic excellence, practical training, research, and industry interaction. The institute focuses on developing competent, ethical, and industry-ready pharmacy professionals through modern teaching methodologies and state-of-the-art infrastructure. Strong emphasis on student support, innovation, community engagement, and continuous quality improvement contributes to the holistic development of students and the overall growth of the institution.

9.2 Scope and Career Opportunities

□ Graduates of the program may work in

A. Pharmaceutical Manufacturing and Research Companies

1. Sun Pharmaceutical Industries
2. Dr. Reddy's Laboratories
3. Cipla limited
4. Lupin pharma
5. Torrent Pharmaceuticals
6. Zydus Lifesciences
7. Aurobindo Pharma
8. Intas Pharmaceuticals
9. Abbott Laboratories
10. Pfizer
11. Novartis pharmaceuticals
12. Sanofi

B. Clinical Research and Manufacturing Organizations (CROs/CMOs)

1. Syngene International
2. Jubilant Biosys
3. Lambda Therapeutic Research
4. Veeda Clinical Research

C. Regulatory and Government Organizations

1. Central Drugs Standard Control Organization (CDSCO)
2. Food and Drug Administration (FDC)
3. Indian Pharmacopoeia Commission (IPC)
4. Pharmaceuticals and Medical Devices Bureau of India

5. State Drug Control Departments

D. Hospitals and Healthcare Institutions

1. Government Hospitals
2. Private Multi-specialty Hospitals
3. Community Health Centres
4. Clinical Pharmacies
5. Hospital Pharmacy Departments
6. Pharmacovigilance Centres

E. Biotechnology and Healthcare Companies

1. Biocon
2. Serum Institute of India
3. Bharat Biotech
4. Panacea Biotech

F. Entrepreneurship and Start-ups

1. Pharmaceutical Manufacturing Units
2. Wholesale Drug Distribution
3. Retail and Community Pharmacies
4. Healthcare Consulting Services
5. Pharmaceutical Marketing Organizations
6. Digital Health and Pharmaceutical Technology Start-ups

G. Emerging Career Domains

1. Artificial Intelligence in Drug Discovery
2. Clinical Data Management
3. Pharmacovigilance and Drug Safety
4. Regulatory Affairs
5. Medical Writing
6. Quality Assurance and Quality Control
7. Intellectual Property Rights (IPR)
8. Pharmaceutical Informatics
9. Precision Medicine and Personalized Healthcare

Typical Job Roles: B.Pharm candidate can work as Production Pharmacist, Formulation Scientist, Quality Control Analyst, Quality Assurance Officer, Regulatory Affairs Executive, Clinical Research Associate, Pharmacovigilance Associate, Medical Writer, Drug Safety Officer, Research Scientist, Hospital Pharmacist, Community Pharmacist, Academician, and Entrepreneur.

Potential Job Roles

Career Domain / Department	Potential Job Roles	Key Responsibilities
Quality Assurance (QA) & Quality Control (QC)	QA Executive, QA Officer, QC Analyst, QC Executive, Validation Officer, Documentation Officer, Compliance Officer, Analytical Chemist, Stability Analyst, Microbiology Analyst, GMP Compliance Specialist.	Ensuring product quality, analytical testing, method validation, documentation, regulatory compliance, GMP implementation, stability studies, deviation management, CAPA, audits, and quality system maintenance.
Production & Manufacturing	Production Pharmacist, Production Officer, Production Executive, Manufacturing Executive, Shift In-charge, Packaging Executive, Process Validation Executive, Sterile Manufacturing Officer, Operations Executive	Manufacturing pharmaceutical products, process monitoring, production planning, packaging operations, equipment management, GMP compliance, process validation, and continuous process improvement.
Research & Development (R&D)	Research Scientist, Formulation Scientist, R&D Executive, Product Development Scientist, Analytical Development Scientist, Clinical Research Associate, Technology Transfer Executive, NDDS Researcher	Drug discovery, formulation development, analytical method development, product optimization, stability studies, scale-up, technology transfer, and innovation of pharmaceutical products.
Clinical Research Organization (CRO)	Clinical Research Associate (CRA), Clinical Research Coordinator (CRC), Clinical Trial Assistant (CTA), Clinical Data Associate, Pharmacovigilance Associate, Drug Safety Associate, Medical Reviewer, Regulatory Affairs Associate	Conducting and monitoring clinical trials, patient data management, regulatory documentation, adverse event reporting, pharmacovigilance, and ensuring compliance with Good Clinical Practice (GCP).
Medical Coding & Medical Billing	Medical Coder, Medical Billing Executive, Medical Coding Analyst, Healthcare Documentation Specialist, Revenue Cycle Executive, Insurance Claims Analyst	Assigning medical codes using ICD/CPT standards, processing insurance claims, healthcare documentation review, reimbursement management, and maintaining patient billing records.
Academic	Lecturer (D.Pharm Institutes), Assistant Professor, Academic Coordinator, Laboratory Instructor, Research Associate, Academic Content Developer	Teaching pharmacy subjects, conducting practical sessions, mentoring students, curriculum development, academic administration, and research activities.
Medical Representative (MR) / Territory	Medical Representative, Professional Sales Representative, Territory Business Manager, Area Sales Executive, Product Executive, Business Development	Promoting pharmaceutical products to healthcare professionals, achieving sales targets, conducting product presentations, market analysis,

Business Manager	Executive, Regional Sales Coordinator	customer relationship management, and territory development.
Hospital & Community Pharmacy	Hospital Pharmacist, Clinical Pharmacist, Retail Pharmacist, Community Pharmacist, Pharmacy Manager, Drug Information Pharmacist, Pharmacy Supervisor	Dispensing medications, patient counseling, inventory management, medication therapy management, ensuring rational drug use, and maintaining pharmacy records as per regulatory requirements.
Government Services & Regulatory Affairs	Drug Inspector, Government Pharmacist, Government Analyst, Scientific Officer, Research Officer, Pharmacovigilance Officer, Regulatory Affairs Officer, Public Health Officer, Food Safety Officer, Teaching Faculty in Government Institutions	Drug regulation and inspection, quality assurance, public health services, regulatory compliance, research activities, policy implementation, pharmacovigilance, and healthcare administration.
Higher Education	M.Pharm, Pharm.D (Post-Baccalaureate), MBA, M.S., MPH, Ph.D.	Pharmacy graduates can pursue higher studies in specialized areas such as Pharmaceutics, Pharmacology, Pharmaceutical Chemistry, Quality Assurance, Pharmacognosy, Regulatory Affairs, Clinical Pharmacy, Pharmaceutical Biotechnology, and Healthcare Management. These programs enhance expertise and open opportunities in research, academia, industry, and healthcare sectors.
International Career Opportunities	Registered Pharmacist Abroad, Clinical Pharmacist, Community Pharmacist, Hospital Pharmacist, Pharmaceutical Scientist	Graduates can pursue pharmacy careers in countries such as the USA, Canada, Australia, New Zealand, Ireland, and the United Kingdom after qualifying the respective licensure examinations such as NAPLEX, PEBC, OPRA, and OSPAP, along with country-specific registration requirements.
Government Sector	Junior Pharmacist, Pharmacist, Drug Inspector, Government Analyst, Food Safety Officer, Scientific Officer, Research Officer, Regulatory Affairs Officer, Pharmacovigilance Officer	B.Pharm graduates can secure positions in government hospitals, public health departments, drug regulatory authorities, research laboratories, and pharmaceutical organizations. Responsibilities include drug dispensing, drug inspection, regulatory compliance, public health services, quality control, and healthcare administration.
Competitive Examinations & Public Sector Opportunities	GPAT Qualified Candidate, Government Recruitment Examinations, Public Sector Undertakings (PSUs)	Graduates may appear for competitive examinations to pursue postgraduate studies, research fellowships, scholarships, and positions in public sector organizations, government

		healthcare institutions, and regulatory agencies.
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Major Employment Sectors

1. Pharmaceutical Manufacturing Industries
2. Research & Development Centres
3. Clinical Research Organizations (CROs)
4. Biotechnology and Vaccine Industries
5. Regulatory and Government Organizations
6. Hospitals and Healthcare Institutions
7. Retail and Community Pharmacies
8. Medical Coding and Healthcare IT Companies
9. Pharmaceutical Sales and Marketing Organizations
10. Academic and Research Institutions
11. Contract Development and Manufacturing Organizations (CDMOs)
12. Entrepreneurship and Pharmaceutical Start-ups

Additional Career Advancement Opportunities

1. Higher studies in India and abroad
2. Research fellowships and doctoral programs (Ph.D.)
3. Clinical research and pharmacovigilance specialization
4. Regulatory affairs and intellectual property rights (IPR)
5. Entrepreneurship and pharmaceutical start-ups
6. International pharmacist registration and practice
7. Public health and healthcare management careers

10. Collaborative Field Work / Experimental Work

The Institute of Pharmacy promotes collaborative fieldwork and experimental learning through industrial visits, hospital training, community pharmacy activities, health awareness programs, and research-based laboratory projects. These experiential learning opportunities enable B.Pharm students to apply theoretical concepts in real-world settings, enhancing their practical skills and professional competence. Faculty members actively guide students in collaborative research, experimental studies, and field-based projects, fostering innovation and scientific inquiry. Such initiatives strengthen industry and community engagement, enrich the teaching-learning process, and contribute to the academic growth and reputation of the institute.

11. Market Survey

Gandhinagar Institute of Pharmacy promotes market survey activities to help students understand pharmaceutical industry trends, consumer behavior, healthcare needs, and emerging market opportunities. Through field-based surveys and data analysis projects, students develop research, communication, and problem-solving skills. These activities enhance industry awareness, support evidence-based decision-making, and strengthen the institute's connection with the healthcare and pharmaceutical sectors.

12. Review and Revision of Regulation

The University reserves the right to interpret, modify, revise, amend, or update any provision, rule, regulation, curriculum structure, evaluation pattern, academic requirement, or operational guideline related to the program from time to time in accordance with University regulations, statutory requirements, industry developments, and academic needs.

In case of any ambiguity or dispute regarding interpretation of any provision of this manual, the decision of the University/Competent Authority shall be final and binding on all stakeholders. Any amendments, additions, or revisions approved by the appropriate academic or statutory bodies of the University shall automatically become applicable to the program.