Bachelor of Pharmacy (B. Pharm)

All India Council of Technical Education (AICTE) and Pharmacy Council of India (PCI) approved 4 years graduate programme offered by Gupta College of Technological Sciences affiliated to West Bengal University of Technology (WBUT).

Minimum Eligibility for application

Candidates qualified in West Bengal Joint Entrance Examination (JEE; Engg) and 10+2 examination of the West Bengal Council of Higher Secondary Education or any other approved board /university of India with 45% marks and combination of subjects like Physics, Chemistry, Mathematics/ Biology, are eligible for applying to this course.

As per norms of the West Bengal Board of Education declaration 2011, candidates are selected on the basis of their rankings in the West Bengal JEE (Engg) for admission in B. Pharm.

In 2011 the W.B Board has relaxed the criterion as following :-
Candidates other than JEE can also apply for filling up the vacant seats in respective colleges after counseling.

Admission of Lateral Entry students

Candidates with a diploma in pharmacy from a recognized AICTE approved polytechnique institute of West Bengal with a minimum of 60% marks and a score in Joint Entrance Examination for Lateral Entry (conducted by WBUT) are eligible to apply for admission in the 3rd semester of the graduate programme (total of 8 semesters). Seat reservation for such admissions are limited to only 10% of the total students admitted to this course in the beginning of the programme.

About the Graduate Programme

This programme aims at giving an in-depth idea to a student about all aspects in the field of pharmaceutical technology. Content of the course is as follows

SEMISTER-I

A. THEORY							
SL. NO.	CODE	THEORY	CONTACTS (PERIODS/WEEK)				CREDITS
			L	T	P	TOTAL	
1	HU 101	HUMANITIES (Professional communication in English)	2	1	-	3	3

2	PT 101	PHARMACEUTICAL	3	-	-	3	3

		ANALYSIS					
3	M 103 OR PTB 101	REMEDIAL MATHEMATICS OR REMEDIAL BIOLOGY	3	-	-	3	3
4	PT 103	PHARMACEUTICAL CHEMISTRY (INORGANIC PHARMACEUTICAL CHEMISTRY)	3	1	-	4	4
5	PT 106	PHARMACEUTICS (DISPENSING PHARMACY)	3	-	-	3	3
Total of Theory						16	16
B. PRACTICAL							
1	PT 191	PHARMACEUTICAL ANALYSIS	-	-	3	3	2
2	PT 196	PHARMACEUTICS (DISPENSING PHARMACY)	-	-	3	3	2
3	PT 193	PHARMACEUTICAL CHEMISTRY	-	-	3	3	2
4	PTB 191	REMEDIAL BIOLOGY*	-	-	3	3	2
Total of Practical						12	8
Total of Semester						28	24

*** Note: L= Lecture, T= Tutorial, P= Practical.**

PTB 191 is compulsory for all students

*** Practical examination is essential as per PCI norms :**

i) Sessional : 40

ii) Practical examination : 60

SEMESTER-II

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 203	PHARMACEUTICAL CHEMISTRY (PHYSICAL	3	1	-	4	4

		CHEMISTRY)					
2	M 203	ADVANCED MATEHMATICS & ENGINEERING MECHANICS	3	1	-	4	4
3	PT 204	PHARMACEUTICAL CHEMISTRY (ORGANIC CHEMISTRY)	3	1	-	4	4
4	HU202	ENVIRONMENT & ECOLOGY	3	-	-	3	3
5	PT 202	PHARMACOGNOSY	2	1	-	3	3
6	PT 205	PHYSIOLOGY	2	1	-	3	3
Total of Theory						21	21
B. PRACTICAL							
1	PT 293	PHARMACEUTICAL CHEMISTRY (PHYSICAL CHEMISTRY)	-	-	3	3	2
2	PT 294	PHARMACEUTICAL CHEMISTRY (ORGANIC CHEMISTRY)	-	-	3	3	2
3	PT 292	PHARMACOGNOSY	-	-	3	3	2
4	PT 295	PHYSIOLOGY	-	-	3	3	2
Total of Practical						12	8
Total of Semester						33	29

SEMESTER-III

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 304	PHARMACEUTICAL CHEMISTRY (ORGANIC CHEMISTRY)	3	1	-	4	4
2	PT 301	PHARMACEUTICAL ANALYSIS	3	1	-	4	4
3	PT 306	PHARMACEUTICS (PHYSICAL PHARMACY)	3	1	-	4	4
4	PT 307	PHARMACEUTICAL ENGINEERING	3	1	-	4	4
5	CS 303	BASIC ELECTRONICS & COMPUTER APPLICATION	3	1	-	4	4
6	PT-305	APHE	3	-	-	3	3

Total of Theory						23	23
B. PRACTICAL							
1	PT 394	PHARMACEUTICAL CHEMISTRY (ORGANIC CHEMISTRY)	-	-	3	3	2
2	PT 391	PHARMACEUTICAL ANALYSIS	-	-	3	3	2
3	PT 396	PHAMACEUTICS (PHYSICAL PHARMACY)	-	-	3	3	2
4	PT 397	ENGINEERING DRAWING	-	-	3	3	2
5	CS 393	BASIC ELECTRONICS & COMPUTER APPLICATION	-	-	3	3	2
Total of Practical						15	10
Total of Semester						38	33

SEMESTER-IV

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 406	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY-I)	3	1	-	4	4
2	PT 402	PHARMACOGNOSY	3	1	-	4	4
3	PT 404	PHARMACEUTICAL CHEMISTRY (BIO-CHEMISTRY)	3	1	-	4	4
4	PT 405	PHYSIOLOGY	3	1	-	4	4
5	PT 407	PHARMACEUTICAL ENGINEERING	3	1	-	4	4
Total of Theory						20	20
B. PRACTICAL							
1	PT 496	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY-I)	-	-	3	3	2
2	PT 492	PHARMACOGNOSY	-	-	3	3	2

3	PT 497	PHARMACEUTICAL ENGINEERING	-	-	3	3	2
4	PT 494	PHARMACEUTICAL CHEMISTRY (BIO-CHEMISTRY)	-	-	3	3	2
Total of Practical						12	8
Total of Semester						32	28

SEMESTER-V

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 506	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY-II)	3	1	-	4	4
2	PT 508	PHARMACOLOGY	3	-	-	3	3
3	PT 509	PHARMACEUTICAL MICRO-BIOLOGY	3	-	-	3	3
4	PT 503	PHARMACEUTICAL CHEMISTRY (MEDICINAL CHEMISTRY)	3	1	-	4	4
5	PT 507	PHARMACEUTICAL ENGINEERING	3	-	-	3	3
6.	PT 504	PHARMACEUTICAL CHEMISTRY (BIO-CHEMISTRY)	3	-	-	3	3
Total of Theory						20	20
B. PRACTICAL							
1	PT 596	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY-II)	-	-	3	3	2
2	PT 597	PHARMACEUTICAL ENGINEERING	-	-	3	3	2
3	PT 599	PHARMACEUTICAL MICRO-BIOLOGY	-	-	3	3	2
4	PT 593	PHARMACEUTICAL CHEMISTRY	-	-	3	3	2

		(MEDICINAL CHEMISTRY)					
Total of Practical						12	08
Total of Semester						32	28

SEMESTER-VI

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 603	PHARMACEUTICAL CHEMISTRY (MEDICINAL CHEMISTRY)	3	1	-	4	4
2	PT 606	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)	3	-	-	3	3
3	PT 611	PHARMACEUTICS (BIO-PHARMACEUTICS & PHARMACOKINETICS)	3	1	-	4	4
4	PT 608	PHARMACOLOGY	3	-	-	3	3
5	PT 609	PHARMACEUTICAL BIO-TECHNOLOGY & INDUSTRIAL MICRO-BIOLOGY	3	-	-	3	3
6.	PT 610A/B	ELECTIVE-I	3	-	-	3	3
Total of Theory						20	20
B. PRACTICAL							
1	PT 693	PHARMACEUTICAL CHEMISTRY (MEDICINAL CHEMISTRY)	-	-	3	3	2
2	PT 696	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)	-	-	3	3	2
3	PT 697	PHARMACUTICS (BIO-PHARMACEUTICS & PHARMACOKINETICS)	--	-	3	3	2
4	PT 698	PHARMACOLOGY	-	-	3	3	2

5	PT 691A/B	ELECTIVE-I					
Total of Practical						12	8
C. SESSIONALS							
Seminar (PT 682)			3			2	
Total of Semester			35			30	

SEMESTER-VII

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 706	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)	3	-	-	3	3
2	PT 703	PHARMACEUTICAL CHEMISTRY (MEDICINAL CHEMISTRY)	3	-	-	3	3
3	PT 702	PHARMACOGNOSY	3	-	-	3	3
4	PT 708	PHARMACOLOGY	3	-	-	3	3
5	PT 709A/B	ELECTIVE-II	3	-	-	3	3
Total of Theory						15	15
B. PRACTICAL							
1	PT 796	PHARMACEUTICS (PHARMACEUTICAL TECHNOLOGY)	-	-	3	3	2
2	PT 793	PHARMACEUTICAL CHEMISTRY (MEDICINAL CHEMISTRY)	-	-	3	3	2
3	PT 783	PROJECT	-	-	8	8	6
Total of Practical						14	10
C. SESSIONALS							
1	Seminar on assigned topic (PT 782)		3			2	
	Total of sessionals		3			2	

Total of Semester	32	27

SEMESTER-VIII

A. THEORY							
Sl. No.	**CODE**	**THEORY**	**CONTACTS (PERIODS/WEEK)**				**CREDITS**
			L	**T**	**P**	**TOTAL**	
1	PT 812	PHARMACEUTICAL INDUSTRIAL MANAGEMENT	3	-	-	3	3
2	PT 813	PHARMACEUTICAL JURISPRUDENCE & ETHICS	3	-	-	3	3
3	PT 818	HOSPITAL PHARMACY & CLINICAL PHARMACY	3	-	-	3	3
4	PT 801	PHARMACEUTICAL ANALYSIS	3	-	-	3	3
Total of Theory						12	12
B. PRACTICAL							
1	PT 891	PHARMACEUTICAL ANALYSIS	-	-	3	3	2
2	PT 884	VIVA-VOCE	-	-	-	06	06
Total of Practical						09	08
Total of Semester						21	20

Career Scopes

Completion of the course of bachelors in pharmacy opens a wide array of employment opportunities, as Pharmaceutical Technologists are the key persons for product management, quality control, quality assurance, formulation development and drug designing in different pharmaceutical sectors. The avenues are as follows

™ In Plant/ Manufacturing: Jobs may be available in Production, Quality Control, Quality Assurance, Validation, Research and Product Development, Packaging Development, Purchase and Inventory Management

™ Administration in Drug Control: Recruitment from Drug Control Officer to Director of Drug Control (both in state and central government offices).

- ™ Research: As Scientists in Central and State Drug Laboratories
- ™ Teaching: In Diploma Colleges
- ™ Marketing: As Marketing and Sales Executive in pharmaceutical Companies
- ™ Hospitals Pharmacists and Clinical Pharmacists
- ™ Defense: as Scientists and Executives
- ™ Higher studies after qualifying the Graduate Aptitude Test Examination (GATE)

Note: Gate qualified students of GCTS has obtained percentiles ranging from 96.5 (2004), 97.0, 94, 93.8 (2005), 98.0 (2008) and all India ranks, 672 (2006), 790, 806, 906(2007),