# **Master in Pharmacy (M. Pharm)**

All India Council Of Technical Education (AICTE) and Pharmacy council of India (PCI) approved 2 years postgraduate programme offered by Gupta College of Technological Sciences affiliated to West Bengal University of Technology (WBUT).

### Minimum Eligibility for application

An application for admission to the M. Pharm course requires a minimal qualification of a B. Pharm degree from any recognized University of India with not less than 60% marks in aggregate. Selection of candidature is done on the basis of the scores obtained in an entrance test conducted by the university (WBUT), which includes a written examination followed by a viva voice, by a board of institutional experts.

#### About the programme

Pharmacy being an emerging branch of healthcare is spreading its realms into other modern technology based branches of biology like biotechnology, nanotechnology, computer drug designing and bioinformatics. Our programme offers each student, a firm footing into these modern technology based subjects through thorough class room courses, in-depth practical hands-on in the laboratories along with assignment and guidance for motivated research.

#### **Programme content**

The master degree course offers specialization in the enlisted branches of pharmacy which has a course content as follows:

#### PHARMACEUTICAL CHEMISTRY

#### **SEMESTER-I**

### A. THEORY

SL.	CODE	THEORY	( <b>P</b> :			CTS (WEEK)	CREDITS
			L	T	P	TOTAL	
01	MPT- 103(1)	Advanced Pharmaceutical Chemistry-I	4				3
02	MBS-101	Bio-Statistics (Common paper)	4				2
03	MPT-101	Modern Pharmaceutical Analytical Techniques (Common paper)	4				3
04	MPT- 103(2)	Advanced Pharmaceutical Chemistry-II	3				2
		Sessional					
05	MPT-181	Seminar					1
06	MPT- 193(1) MPT-191	Pharmaceutical Chemistry Lab. Pharmaceutical Analysis Lab.			4		3 3
							17

FULL MARKS FOR PAPER WITH 2 / 3 CREDIT POINT = 100

FULL MARKS FOR PAPER WITH 1 CREDIT POINT = 50

FULL MARKS FOR PAPER WITH 5 CREDIT POINT = 200

FULL MARKS FOR PAPER WITH 9 CREDIT POINT = 300

# **SEMISTER-II**

		A. THEO	RY				
SL. NO.	CODE	THEORY			CTS /WEEK)	CREDITS	
			L	T	P	TOTAL	
01	202(1)	Advanced Pharmaceutical Chemistry-III	3				2
02	MPT-209	Pharmaceutical Bio-technology	4				3
03	MPT-212	Process validation & CGMP (Common paper)	4				3
04		Advanced Pharmaceutical Chemistry-IV	2				2
		Session	al				
05	MPT-281	Seminar					1
06	MPT-293	Pharmaceutical Chemistry Lab.			4		2
							13

# **SEMISTER-III**

	A. <u>THEORY</u>									
SL.	CODE	THEORY			NTA	CREDITS				
NO.			(	PERI	ODS/					
			L	T	P	TOTAL				
01	MPT- 314	Research Method & Clinical Trials	3				2			
01	MPT- 391	Synopsis					5			
02	MPT- 392	Presentation					3			

			10

## **SEMISTER-IV**

	A. THEORY									
SL. NO.	CODE	THEORY	(	CO PERIO	NTA( ODS/V	CREDITS				
			L	T	P	TOTAL				
01	MPT-493	Thesis					9			
02	MPT- 493(1)	Defence of Thesis					3			
							12			

The Synopsis and presentation of 1<sup>st</sup> semester and Thesis and Defence of Thesis in 4<sup>th</sup> Semester should be assessed in presence of External Examiner(s). The Final Credit should be awarded to the student of the above mentioned subjects by both the internal and external examiners.

### **PHARMACEUTICS**

# **SEMESTER-I**

		A. THEOR	<u>Y</u>						
SL.	CODE	THEORY	( <b>P</b> )	CO ERI	NTA ODS	CREDITS			
			L	T	P	TOTAL			
01	MPT-106	Dosage form design parameters & pharmaceutical product development	4				3		
02	MBS-101	Bio-Statistics (Common paper)	4				2		
03	MPT-101	Modern Pharmaceutical Analytical Techniques (Common paper)	4				3		
04	MPT-116	Bio-pharmaceutics & pharmacokinetics	3				2		
	Sessional								
05	MPT-181	Seminar					1		

06	MPT-196	Pharmaceutical Technology Lab.		4	3
	MPT-191	Pharmaceutical Analysis Lab.		4	3
					17

FULL MARKS FOR PAPER WITH 2 / 3 CREDIT POINT = 100

FULL MARKS FOR PAPER WITH 1 CREDIT POINT = 50

FULL MARKS FOR PAPER WITH 5 CREDIT POINT = 200

FULL MARKS FOR PAPER WITH 9 CREDIT POINT = 300

# **SEMISTER-II**

	A. <u>THEORY</u>									
SL. NO.	CODE	THEORY	(		NTA ODS/	CTS WEEK)	CREDITS			
			L	T	P	TOTAL				
01	MPT- 206(1)	Drug Delivery System	3				2			
02	MPT- 209	Pharmaceutical Bio-technology	4				3			
03	MPT- 212	Process validation & CGMP (Common paper)	4				3			
04	MPT- 206(2)	Physical Pharmaceutics	2				1			
		Sessional								
05	MPT- 281	Seminar					1			
06	MPT- 296	Bio-pharmaceutics Lab.			4		2			
							13			

# **SEMISTER-III**

	A. <u>THEORY</u>										
SL.	CODE	THEORY	CONTACTS	CREDITS							
NO.			(PERIODS/WEEK)								

			L	T	P	TOTAL	
01	MPT- 314	Research Method & Clinical Trials	3				2
02	MPT- 391	Synopsis					5
03	MPT- 392	Presentation					3
							10

## **SEMISTER-IV**

	A. <u>THEORY</u>									
SL. NO.	CODE	THEORY	CONTACTS (PERIODS/WEEK)				CREDITS			
			L	T	P	TOTAL				
01	MPT-496	Thesis					9			
02	MPT- 496(1)	Defence of Thesis					3			
							12			

The Synopsis and presentation of 1<sup>st</sup> semester and Thesis and Defence of Thesis in 4<sup>th</sup> Semester should be assessed in presence of External Examiner(s). The Final Credit should be awarded to the student of the above mentioned subjects by both the internal and external examiners.

### **PHARMACOLOGY**

### **SEMESTER-I**

	A. <u>THEORY</u>										
SL.	CODE	THEORY	(D)		NTA	CREDITS					
NO.			(P)	ERIC	JDS/						
			L	T	P	TOTAL					
01	MPT- 108(1)	General Pharmacology	4			4	3				
02	MBS-101	Bio-Statistics (Common paper)	4			4	2				

03	MPT-101	Modern Pharmaceutical Analytical Techniques (Common paper)	4		4	3	
04	MPT- 108(2)	Advanced Pharmacology	3		3	2	
Sessional							
05	MPT-181	Seminar				1	
06	MPT-198	Pharmacology Lab		4	4	3	
	MPT-191	Pharmaceutical Analysis Lab.		4	4	3	
					23	17	

FULL MARKS FOR PAPER WITH 2 / 3 CREDIT POINT = 100

FULL MARKS FOR PAPER WITH 1 CREDIT POINT = 50

FULL MARKS FOR PAPER WITH 5 CREDIT POINT = 200

FULL MARKS FOR PAPER WITH 9 CREDIT POINT = 300

## **SEMISTER-II**

A. <u>THEORY</u>							
SL. NO.	CODE	THEORY		CO (PER	CREDITS		
			L	T	P	TOTAL	
01	MPT-208(1)	Clinical Pharmacology	3			3	2
02	MPT-209	Pharmaceutical Biotechnology	4			4	3
03	MPT-212	Process validation & CGMP (Common paper)	4			4	3
04	MPT-208(2)	Molecular Pharmacology	3			3	2
Sessional							
05	05 MPT-281 Seminar						1
06	MPT-293 P	harmacology Lab.			4	4	2
						18	13

### **SEMISTER-III**

	A. <u>THEORY</u>								
SL.	CODE	THEORY	CONTACTS (PERIODS/WEEK)				CREDITS		
			L	Т	P	TOTAL			
01	MPT- 314	Research Method & Clinical Trials	3			3	2		
01	MPT- 391	Synopsis					5		
02	MPT- 392	Presentation					3		
						3	10		

### **SEMESTER-IV**

A. <u>THEORY</u>							
SL. NO.	CODE	THEORY	CONTACTS (PERIODS/WEEK)			CREDITS	
			L	T	P	TOTAL	
01	MPT- 493(1)	Thesis					9
02	MPT- 493(2)	Defence of Thesis					3
							12

The Synopsis and presentation of 1<sup>st</sup> semester and Thesis and Defence of Thesis in 4<sup>th</sup> Semester should be assessed in presence of External Examiner(s). The Final Credit should be awarded to the student of the above mentioned subjects by both the internal and external examiners.

### **Career Scopes**

A postgraduate degree in pharmacy may open up opportunities in career development in national and international levels with vast scopes of employment in

- Research and development in multi-national and national pharmaceutical, cosmetic technology industries as well as in research organizations under CSIR, ICMR, DST etc
- Product Planning and Formulation Designing
- Product Management
- Import and Export Quality Control Management
- Clinical Pharmacy
- Academics: College and University Teaching and Research
- Regulatory affairs: In government and statutory bodies in drug development, manufacturing regulations, implementation and quality control , Director of drug control