



Geethanjali

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## Geethanjali College of Pharmacy

Approved By AICTE, PCI New Delhi, Permanently Affiliated to JNTUH & Accredited by NBA (B. Pharmacy)  
Recognized Under UGC Section 2F & 12B of UGC Act, 1956, by DSIR-SIRO & HI/BI of MSME Certified by ISO 9001:2015  
Cheeryal (V), Keesara (M), Medchal-Malkajgiri District, Telangana State - 501 301.

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S. No.	List of Documents
1.	JNTUH, Hyderabad (Affiliating University) prescribed syllabus copies showing courses that include experimental learning through project work/field work/internship for the year 2016-17, 2017-18, 2018-19, 2019-20, and 2020-21.
2.	Minutes of the College Academic Committee meetings with approvals for courses that include experimental learning through project work/field work/internship for the year 2016-17, 2017-18, 2018-19, 2019-20, and 2020-21.

  
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Cheeryal(V), Keesara(M), Medchal. Dist. T.S. 501301.

Sponsored by : **TEJA EDUCATIONAL SOCIETY, HYDERABAD.**

Office : Sy. No. 33 & 34, Cheeryal (V), Keesara (M), Medchal-Malkajgiri (District), Telangana State - 501 301.

Mobile : 9866308259

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# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## B. PHARMACY I YEAR COURSE STRUCTURE AND SYLLABUS

Effective from Academic Year 2017-18 Admitted Batch

### I Year I semester

S. No	Course Code	Subject	L	T	P	Credits
1	PS101	Human Anatomy and Physiology I	3	1	-	3
2	PS102	Pharmaceutical Analysis I	3	1	-	3
3	PS103	Pharmaceutics I	3	1	-	3
4	PS104	Pharmaceutical Inorganic Chemistry-I	3	1	-	3
5	HS105	Communication skills	2	-	-	2
6	BS106/BS107	Remedial Biology <sup>#</sup> / Remedial Mathematics <sup>\$</sup>	2 <sup>#</sup> /3 <sup>\$</sup>	-	-	2 <sup>#</sup> /3 <sup>\$</sup>
7	PS108	Human Anatomy and Physiology-I lab	-	-	4	2
8	PS109	Pharmaceutical Analysis-I lab	-	-	4	2
9	PS110	Pharmaceutics I lab	-	-	4	2
10	PS111	Pharmaceutical Inorganic Chemistry-I lab	-	-	4	2
11	HS112	Communication skills lab	-	-	2	1
12	BS113	Remedial Biology lab	-	-	2	1
		<b>Total</b>	<b>16/17</b>	<b>4</b>	<b>20</b>	<b>26<sup>#</sup>/26<sup>\$</sup></b>

<sup>#</sup>Applicable ONLY for the students who have studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology (RB) course.

<sup>\$</sup>Applicable ONLY for the students who have studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics (RM) course.

### I Year II semester

S. No	Course Code	Subject	L	T	P	Credits
1	PS201	Human Anatomy and Physiology II	3	1	-	3
2	PS202	Pharmaceutical Organic Chemistry I	4	1	-	4
3	BS203	Biochemistry	3	1	-	3
4	BS204	Pathophysiology	3	1	-	3
5	CS205	Computer Applications in Pharmacy	3	-	-	3
6	PS206	Human Anatomy and Physiology II lab	-	-	4	2
7	PS207	Pharmaceutical Organic Chemistry I lab	-	-	4	2
8	BS208	Biochemistry lab	-	-	4	2
9	CS209	Computer Applications in Pharmacy lab	-	-	2	1
10	*MC200	NSS	-	-	-	-
		<b>Total</b>	<b>16</b>	<b>4</b>	<b>14</b>	<b>23</b>

\*MC - Mandatory Course - Satisfactory/ Unsatisfactory.

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**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. PHARMACY II YEAR SYLLABUS (R17)**

**Effective from Academic Year 2017-18 Admitted Batch**

**II YEAR I SEMESTER**

S. No	Course Code	Course Title	L	T	P	Credits
1	PS301	Pharmaceutical Organic Chemistry-II	3	1	0	4
2	PS302	Physical Pharmaceutics-I	3	1	0	4
3	BS303	Pharmaceutical Microbiology	3	1	0	4
4	PC304	Pharmaceutical Engineering	3	1	0	4
5	PS305	Pharmaceutical Organic Chemistry-II Lab	0	0	4	2
6	PS306	Physical Pharmaceutics-I Lab	0	0	4	2
7	BS307	Pharmaceutical Microbiology Lab	0	0	4	2
8	PC308	Pharmaceutical Engineering Lab	0	0	4	2
9	*MC300	NSO	0	0	0	0
		<b>Total Credits</b>	<b>12</b>	<b>04</b>	<b>17</b>	<b>24</b>

**II YEAR II SEMESTER**

S. No	Course Code	Course Title	L	T	P	Credits
1	PS401	Pharmaceutical Organic Chemistry-III	3	1	0	4
2	PC402	Medicinal Chemistry-I	3	1	0	4
3	PS403	Physical Pharmaceutics-II	3	1	0	4
4	PC404	Pharmacology-I	3	1	0	4
5	PC405	Pharmacognosy and Phytochemistry-I	3	1	0	4
6	PC406	Medicinal Chemistry-I Lab	0	0	4	2
7	PS407	Physical Pharmaceutics-II Lab	0	0	4	2
8	PC408	Pharmacology-I Lab	0	0	4	2
9	PC409	Pharmacognosy and Phytochemistry-I Lab	0	0	4	2
10	*MC400	Gender Sensitization Lab	1	0	0	0
		<b>Total Credits</b>	<b>16</b>	<b>05</b>	<b>16</b>	<b>28</b>

**\*MC-Satisfactory/Dissatisfactory**

  
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**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**B. PHARMACY III YEAR COURSE STRUCTURE AND SYLLABUS**

Effective from Academic Year 2017-18 Admitted Batch

**III Year I Semester**

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS501	Medicinal Chemistry II	3	1	0	4
2	PS502	Industrial Pharmacy - I	3	1	0	4
3	PS503	Pharmacology II	3	1	0	4
4	PS504	Pharmacognosy and Phytochemistry - II	3	1	0	4
5		<b>Open Elective - I</b>	3	1	0	4
	PS505	I. Generic Product Development				
	PS506	II. Green Chemistry				
	PS507	III. Cell and Molecular Biology				
	PS508	IV. Cosmetic science				
6	PS509	Industrial Pharmacy lab	0	0	4	2
7	PS510	Pharmacology - II lab	0	0	4	2
8	PS511	Pharmacognosy and Phytochemistry - II lab	0	0	4	2
9	*MC500	Environmental sciences	1	0	0	0
		<b>Total</b>	<b>16</b>	<b>05</b>	<b>12</b>	<b>26</b>

**III Year II Semester**

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS601	Medicinal Chemistry - III	3	1	0	4
2	PS602	Pharmacology - III	3	1	0	4
3	PS603	Herbal Drug Technology	3	1	0	4
4	PS604	Biopharmaceutics and Pharmacokinetics	3	1	0	4
5		<b>Open Elective - II</b>	3	1	0	4
	PS605	I. Pharmaceutical Quality Assurance				
	PS606	II. Pharmaceutical Biotechnology				
	PS607	III. Bioinformatics				
	PS608	IV. Screening Methods in Pharmacology				
6	PS609	Medicinal chemistry - III lab	0	0	4	2
7	PS610	Pharmacology - III lab	0	0	4	2
8	PS611	Herbal Drug Technology lab	0	0	4	2
9	*MC600	Human Values and Professional Ethics	1	0	0	0
		<b>Total</b>	<b>16</b>	<b>05</b>	<b>12</b>	<b>26</b>

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**B. PHARMACY IV YEAR COURSE STRUCTURE AND SYLLABUS**

Effective from Academic Year 2017-18 Admitted Batch

**IV Year I Semester**

S.No	Course Code	Course Title	L	T	P	Credits
1	PS701	Instrumental Methods of Analysis	3	1	0	4
2	PS702	Industrial Pharmacy-II	3	1	0	4
3	PS703	Pharmacy Practice	3	1	0	4
4	PS704	Novel Drug Delivery Systems	3	1	0	4
5		<b>Open Elective - III</b>	3	1	0	4
	PS705	i. Pharmaceutical Marketing				
	PS706	ii. Pharmaceutical Regulatory Science				
	PS707	iii. Pharmacovigilance				
	PS708	iv. Quality Control and Standardization of Herbals				
6	PS709	Instrumental Methods of Analysis Lab	0	0	4	2
7	PS710	Practice School	0	0	4	2
8	PS711	Industrial Training	0	0	2	1
		<b>Total</b>	<b>15</b>	<b>5</b>	<b>10</b>	<b>25</b>

**IV Year II Semester**

S.No	Course Code	Course Title	L	T	P	Credits
1	PS801	Biostatistics and Research Methodology	3	1	0	4
2	PS802	Social and Preventive Pharmacy	3	1	0	4
3	PS803	Pharmaceutical Jurisprudence	3	0	0	3
4		<b>Open Elective - IV</b>	3	1	0	4
	PS804	i. Computer Aided Drug Design				
	PS805	ii. Nano Technology				
	PS806	iii. Experimental Pharmacology				
	PS807	iv. Advanced Instrumentation Techniques				
5	PS808	Project Work	0	0	6	3
		<b>Total</b>	<b>12</b>	<b>3</b>	<b>6</b>	<b>18</b>

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[PUBLISHED IN THE GAZETTE OF INDIA, No.19, PART III, SECTION 4]

Ministry of Health and Family Welfare  
(Pharmacy Council of India)

New Delhi, 10<sup>th</sup> May, 2008.

### **Pharm.D. Regulations 2008**

Regulations framed under section 10 of the Pharmacy Act, 1948 (8 of 1948).

(As approved by the Government of India, Ministry of Health vide, letter No.V.13013/1/2007-PMS, dated the 13<sup>th</sup> March, 2008 and notified by the Pharmacy Council of India).

No.14-126/2007-PCI.— In exercise of the powers conferred by section 10 of the Pharmacy Act, 1948 (8 of 1948), the Pharmacy Council of India, with the approval of the Central Government, hereby makes the following regulations, namely: -

#### **CHAPTER-I**

1. Short title and commencement. – (1) These regulations may be called the Pharm.D. Regulations 2008.  
(2) They shall come into force from the date of their publication in the official Gazette.
2. Pharm.D. shall consist of a certificate, having passed the course of study and examination as prescribed in these regulations, for the purpose of registration as a pharmacist to practice the profession under the Pharmacy Act, 1948.

  
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**CHAPTER-II**

## 3. Duration of the course. –

- a) Pharm.D: The duration of the course shall be six academic years (five years of study and one year of internship or residency) full time with each academic year spread over a period of not less than two hundred working days. The period of six years duration is divided into two phases –

Phase I – consisting of First, Second, Third, Fourth and Fifth academic year.

Phase II – consisting of internship or residency training during sixth year involving posting in speciality units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services and acquires skill under supervision so that he or she may become capable of functioning independently.

- b) Pharm.D. (Post Baccalaureate): The duration of the course shall be for three academic years (two years of study and one year internship or residency) full time with each academic year spread over a period of not less than two hundred working days. The period of three years duration is divided into two phases –

Phase I – consisting of First and Second academic year.

Phase II – consisting of Internship or residency training during third year involving posting in speciality units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services, and acquires skill under supervision so that he or she may become capable of functioning independently.

## 4. Minimum qualification for admission to. –

- a) Pharm.D. Part-I Course – A pass in any of the following examinations -

(1) 10+2 examination with Physics and Chemistry as compulsory subjects along with one of the following subjects:

Mathematics or Biology.

(2) A pass in D.Pharm course from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act.

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

Provided that a student should complete the age of 17 years on or before 31<sup>st</sup> December of the year of admission to the course.

Provided that there shall be reservation of seats for the students belonging to the Scheduled Castes, Scheduled Tribes and other Backward Classes in accordance with the instructions issued by the Central Government/State Government/Union Territory Administration as the case may be from time to time.

  
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## b) Pharm.D. (Post Bacculaureate) Course -

A pass in B.Pharm from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act:

Provided that there shall be reservation of seats for the students belonging to the Scheduled Castes, Scheduled Tribes and other Backward Classes in accordance with the instructions issued by the Central Government/State Government/Union Territory Administration as the case may be from time to time.

5. Number of admissions in the above said programmes shall be as prescribed by the Pharmacy Council of India from time to time and presently be restricted as below –
  - i) Pharm.D. Programme – 30 students.
  - ii) Pharm.D. (Post Bacculaureate) Programme – 10 students.
6. Institutions running B.Pharm programme approved under section 12 of the Pharmacy Act, will only be permitted to run Pharm.D. programme. Pharm.D. (Post Bacculaureate) programme will be permitted only in those institutions which are permitted to run Pharm.D. programme.
7. Course of study. – The course of study for Pharm.D. shall include the subjects as given in the Tables below. The number of hours in a week, devoted to each subject for its teaching in theory, practical and tutorial shall not be less than that noted against it in columns (3), (4) and (5) below.

### TABLES

#### First Year :

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
1.1	Human Anatomy and Physiology	3	3	1
1.2	Pharmaceutics	2	3	1
1.3	Medicinal Biochemistry	3	3	1
1.4	Pharmaceutical Organic Chemistry	3	3	1
1.5	Pharmaceutical Inorganic Chemistry	2	3	1
1.6	Remedial Mathematics/ Biology	3	3*	1
	<b>Total hours</b>	<b>16</b>	<b>18</b>	<b>6 = (40)</b>

\* For Biology

  
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**Second Year:**

S.No	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
2.1	Pathophysiology	3	-	1
2.2	Pharmaceutical Microbiology	3	3	1
2.3	Pharmacognosy & Phytopharmaceuticals	3	3	1
2.4	Pharmacology-I	3	-	1
2.5	Community Pharmacy	2	-	1
2.6	Pharmacotherapeutics-I	3	3	1
	<b>Total Hours</b>	<b>17</b>	<b>9</b>	<b>6 = 32</b>

**Third Year:**

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
3.1	Pharmacology-II	3	3	1
3.2	Pharmaceutical Analysis	3	3	1
3.3	Pharmacotherapeutics-II	3	3	1
3.4	Pharmaceutical Jurisprudence	2	-	-
3.5	Medicinal Chemistry	3	3	1
3.6	Pharmaceutical Formulations	2	3	1
	<b>Total hours</b>	<b>16</b>	<b>15</b>	<b>5 = 36</b>

  
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**Fourth Year:**

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical/Hospital Posting	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
4.1	Pharmacotherapeutics-III	3	3	1
4.2	Hospital Pharmacy	2	3	1
4.3	Clinical Pharmacy	3	3	1
4.4	Biostatistics & Research Methodology	2	-	1
4.5	Biopharmaceutics & Pharmacokinetics	3	3	1
4.6	Clinical Toxicology	2	-	1
	<b>Total hours</b>	<b>15</b>	<b>12</b>	<b>6 = 33</b>

**Fifth Year:**

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Hospital posting*	No. of hours of Seminar
(1)	(2)	(3)	(4)	(5)
5.1	Clinical Research	3	-	1
5.2	Pharmacoepidemiology and Pharmacoeconomics	3	-	1
5.3	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	2	-	1
5.4	Clerkship *	-	-	1
5.5	Project work (Six Months)	-	20	-
	<b>Total hours</b>	<b>8</b>	<b>20</b>	<b>4 = 32</b>

\* Attending ward rounds on daily basis.

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**Sixth Year:**

Internship or residency training including postings in speciality units. Student should independently provide the clinical pharmacy services to the allotted wards.

- (i) Six months in General Medicine department, and
- (ii) Two months each in three other speciality departments

8. Syllabus. – The syllabus for each subject of study in the said Tables shall be as specified in Appendix -A to these regulations.

9. Approval of the authority conducting the course of study. – (1) No person, institution, society or university shall start and conduct Pharm.D or Pharm.D. (Post Baccalaureate) programme without the prior approval of the Pharmacy Council of India.

(2) Any person or pharmacy college for the purpose of obtaining permission under sub-section (1) of section 12 of the Pharmacy Act, shall submit a scheme as prescribed by the Pharmacy Council of India.

(3) The scheme referred to in sub-regulation (2) above, shall be in such form and contain such particulars and be preferred in such manner and be accompanied with such fee as may be prescribed:

Provided that the Pharmacy Council of India shall not approve any institution under these regulations unless it provides adequate arrangements for teaching in regard to building, accommodation, labs., equipments, teaching staff, non-teaching staff, etc., as specified in Appendix-B to these regulations.

10. Examination. – (1) Every year there shall be an examination to examine the students.

(2) Each examination may be held twice every year. The first examination in a year shall be the annual examination and the second examination shall be supplementary examination.

(3) The examinations shall be of written and practical (including oral nature) carrying maximum marks for each part of a subject as indicated in Tables below :

**T A B L E S****First Year examination :**

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
1.1	Human Anatomy and Physiology	70	30	100	70	30	100
1.2	Pharmaceutics	70	30	100	70	30	100
1.3	Medicinal Biochemistry	70	30	100	70	30	100
1.4	Pharmaceutical Organic Chemistry	70	30	100	70	30	100
1.5	Pharmaceutical Inorganic Chemistry	70	30	100	70	30	100
1.6	Remedial Mathematics/Biology	70	30	100	70*	30*	100*
				600			600 = 1200

\* for Biology.

  
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Ref.No.14-126/2010-PCI/4065-92

Dated – 3.5.2011

**All the Examining Authorities conducting Pharm.D & Pharm.D  
(Post Bacallaureate) examinations**

**Sub: Inclusion of Pharmacotherapeutics I & II in IV<sup>th</sup> year for Pharm.D. (Post Bacallaureate) students.**

Sir

This has a reference to the subject cited above. In this connection, I am directed to state that the subject of Pharmacotherapeutics I & II be included in the course of study and examination of IV<sup>th</sup> year for Pharm.D. (Post Bacallaureate) students. A copy of the Pharmacotherapeutics syllabus I & II is enclosed herewith for your ready reference and also available on Council's website "www.pci.nic.in".

Yours faithfully

Sd/-

**(ARCHNA MUDGAL)**  
**Registrar-cum-Secretary**

  
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## PHARM. D. POST BACCALAUREATE PROGRAM

(Inclusion of Pharmacotherapeutics I & II subject in the fourth year of the program)

### SYLLABUS FOR PHARMACOTHERAPEUTICS I & II (THEORY)

Theory: 3Hrs/week

- Etiopathogenesis and pharmacotherapy of diseases associated with following systems/ diseases.

1.	<b>Cardiovascular system:</b> Hypertension, Congestive cardiac failure, Angina Pectoris, Myocardial infarction, Hyperlipidaemias, Electrophysiology of heart and Arrhythmias	<b>Total = 13 hrs</b> <b>(3+2+2+2+2+2)</b>
2.	<b>Respiratory system :</b> Introduction to Pulmonary function test, Asthma, Chronic obstructive airways disease, Drug induced pulmonary diseases	<b>Total = 6</b> <b>(1+2+2+1)</b>
3.	<b>Endocrine system :</b> Diabetes, Thyroid diseases, Oral contraceptives, Hormone replacement therapy, Osteoporosis	<b>Total = 8</b> <b>(3+2+1+1+1)</b>
4.	<b>General prescribing guidelines for</b> a. Paediatric patients b. Geriatric patients c. Pregnancy and breast feeding	<b>Total = 4 hrs</b> <b>(1+1+2)</b>
5.	<b>Ophthalmology:</b> Glaucoma, Conjunctivitis- viral & bacterial	<b>(3 hrs)</b>
6.	<b>Introduction to rational drug use</b> Definition, Role of pharmacist Essential drug concept Rational drug formulations	<b>Total = 2 hrs</b> <b>(1+1)</b>

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7.	<b>Infectious disease:</b> Guidelines for the rational use of antibiotics and surgical Prophylaxis, Tuberculosis, Meningitis, Respiratory tract infections, Gastroenteritis, Endocarditis, Septicemia, Urinary tract infections, Protozoal infection- Malaria, HIV & Opportunistic infections, Fungal infections, Viral infections, Gonorrhoea and Syphilis	<b>Total = 18 hrs.</b> (2+1+1+2+1+1+1+2+1+2+1+1+1+1)
8.	<b>Musculoskeletal disorders</b> Rheumatoid arthritis, Osteoarthritis, Gout, Spondylitis, Systemic lupus erythematosus.	<b>Total = 6 hrs.</b> (2+1+1+1+1)
9.	<b>Renal system</b> Acute Renal Failure, Chronic Renal Failure, Renal Dialysis, Drug induced renal disorders	<b>Total = 05hrs.</b> (2+1+1+1)
10.	<b>Oncology:</b> Basic principles of Cancer therapy, General introduction to cancer chemotherapeutic agents, Chemotherapy of breast cancer, leukemia. Management of chemotherapy nausea and emesis	<b>Total = 06 hrs.</b> (2+1+2+1)
11.	<b>Dermatology:</b> Psoriasis, Scabies, Eczema, Impetigo	<b>Total = 4hrs.</b>

### PHARMACOTHERAPEUTICS – I & II (PRACTICAL)

**Practicals: 3 Hrs./Week**

**Practicals:**

Hospital postings in various departments designed to complement the lectures by providing practical clinical discussion; attending ward rounds; follow up the progress and changes made in drug therapy in allotted patients; case presentation upon discharge. Students are required to maintain a record of cases presented and the same should be submitted at

the end of the course for evaluation. A minimum of 20 cases should be presented and recorded covering most common diseases.

### Assignments:

Students are required to submit written assignments on the topics given to them. Topics allotted should cover recent developments in drug therapy of various diseases. A minimum of THREE assignments [1500 – 2000 words] should be submitted for evaluation.

### Format of the assignment:

1. Minimum & Maximum number of pages.
2. Reference(s) shall be included at the end.
3. Assignment can be a combined presentation at the end of the academic year.
4. It shall be computer draft copy.
5. Name and signature of the student.
6. Time allocated for presentation may be 8+2 Min.

### Scheme of Practical Examination:

	Sessionals	Annual
Synopsis	05	15
Major Experiment	10	25
Minor Experiment	03	15
Viva	02	15
<b>Max Marks</b>	<b>20</b>	<b>70</b>
<b>Duration</b>	<b>03hrs</b>	<b>04hrs</b>

**Note:** Total sessional marks is 30 (20 for practical sessional plus 10 marks for regularity, promptness, viva-voce and record maintenance).

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**R19 M. PHARMACY LIST OF OPEN ELECTIVES**

Pharmacy Practice	Pharmaceutical Regulatory Affairs	Industrial Pharmacy	Pharmaceutical Chemistry	Pharmaceutics/ Pharmaceutical Technology	Pharmaceutical Quality Assurance	Pharmacology	Pharmaceutical Analysis
<ol style="list-style-type: none"> <li>1. Cosmeticology</li> <li>2. Pharmaceutical Administration</li> <li>3. Hazards and Safety management</li> <li>4. Project Management</li> <li>5. Audits and regulatory compliance</li> </ol>	<ol style="list-style-type: none"> <li>1. Screening methods in pharmacology</li> <li>2. Entrepreneurship Management</li> <li>3. Cosmetic science</li> <li>4. Hazards and Safety management</li> <li>5. Audits and regulatory compliance</li> </ol>	<ol style="list-style-type: none"> <li>1. Screening methods in pharmacology</li> <li>2. Entrepreneurship Management</li> <li>3. Cosmetic science</li> <li>4. Hazards and Safety management</li> <li>5. Audits and regulatory compliance</li> </ol>	<ol style="list-style-type: none"> <li>1. Entrepreneurship Management</li> <li>2. Hazards and Safety management</li> <li>3. Audits and regulatory compliance</li> <li>4. Pharmaceutical validation</li> <li>5. Nutraceuticals</li> </ol>	<ol style="list-style-type: none"> <li>1. Screening methods in pharmacology</li> <li>2. Entrepreneurship Management</li> <li>3. Cosmetic science</li> <li>4. Hazards and Safety management</li> <li>5. Audits and regulatory compliance</li> </ol>	<ol style="list-style-type: none"> <li>1. Entrepreneurship Management</li> <li>2. Cosmetic Science</li> <li>3. Nutraceuticals</li> <li>4. Nano Based Drug Delivery Systems</li> <li>5. Pharmacoepidemiology and Pharmacoeconomics</li> </ol>	<ol style="list-style-type: none"> <li>1. Cosmeticology</li> <li>2. Pharmaceutical Administration</li> <li>3. Drug Regulatory affairs</li> <li>4. Project Management</li> <li>5. Audits and regulatory compliance</li> </ol>	<ol style="list-style-type: none"> <li>1. Screening Methods in Pharmacology</li> <li>2. Entrepreneurship Management</li> <li>3. Cosmetic Science</li> <li>4. Hazards and Safety Management</li> <li>5. Audits and Regulatory Compliance</li> </ol>

*namini*  
**PRINCIPAL**  
 Geethanjali College of Pharmacy  
 Cheeryal(V), Keesara(M), Medchal Dist. T.S.-501301.



## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## M.PHARMACY (PHARMACEUTICS / PHARMACEUTICAL TECHNOLOGY)

## COURSE STRUCTURE AND SYLLABUS

Effective from Academic Year 2019-20 Admitted Batch

## I YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-I	Modern Pharmaceutics-I	3	0	0	3
Professional Core-II	Applied Biopharmaceutics and Pharmacokinetics	3	0	0	3
Professional Elective-I	1. Advanced Physical Pharmaceutics 2. Drug Regulatory affairs 3. Total Quality Management	3	0	0	3
Professional Elective-II	1. Cosmetics and Cosmeceuticals 2. Pharmaceutical Validation 3. Stability of Drugs and Dosage Forms	3	0	0	3
	Research methodology and IPR	2	0	0	2
Laboratory- I	Modern Pharmaceutics – I Lab	0	0	4	2
Laboratory- II	Applied Biopharmaceutics and Pharmacokinetics Lab	0	0	4	2
Audit - I	Audit Course - I	2	0	0	0
	<b>TOTAL</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>18</b>

## I YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-III	Modern Pharmaceutics - II	3	0	0	3
Professional Core-IV	Advanced Drug Delivery Systems	3	0	0	3
Professional Elective-III	1. Industrial Pharmacy 2. Herbal Cosmetics 3. Pharmaceutical Management	3	0	0	3
Professional Elective-IV	1. Nano based Drug Delivery Systems 2. Nutraceuticals 3. Clinical Research and Pharmacovigilance	3	0	0	3
Laboratory- III	Modern Pharmaceutics – II Lab	0	0	4	2
Laboratory- IV	Advanced Drug Delivery System Lab	0	0	4	2
	Mini Project with Seminar	2	0	0	2
Audit - II	Audit Course - II	2	0	0	0
	<b>TOTAL</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>18</b>

**II YEAR I Semester**

Course Code	Course Title	L	T	P	Credits
Professional Elective-V	1. Biostatistics 2. Scale up and Technology Transfer 3. Production area, Design and Packaging Development	3	0	0	3
Open Elective	Open Elective	3	0	0	3
Dissertation	Dissertation Work Review - II	0	0	12	6
	<b>TOTAL</b>	<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>

**II YEAR II Semester**

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review - III	0	0	12	6
Dissertation	Dissertation Viva-Voce	0	0	28	14
	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>20</b>

\*For Dissertation Work Review - I, Please refer 7.8 in R19 Academic Regulations.

**Audit Courses I & II:**

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technological Learning
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills

*Principal*  
**PRINCIPAL**  
Geethanjali College of Pharmacy  
Cheerayal(V), Keesara(M), Medchal Dist. T.S.-501301

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## M.PHARMACY (PHARMACEUTICAL ANALYSIS)

R19 COURSE STRUCTURE AND SYLLABUS  
Effective from Academic Year 2019-20 Admitted Batch

## I YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-I	Modern Pharmaceutical Analytical Techniques	3	0	0	3
Professional Core-II	Pharmaceutical and Food Analysis	3	0	0	3
Professional Elective-I	1. Advanced Pharmaceutical Analysis 2. Drug Regulatory Affairs 3. Phytochemistry	3	0	0	3
Professional Elective-II	1. Quality control and Quality Assurance 2. Cosmetics and Cosmeceuticals 3. Stability of Drugs and Dosage forms	3	0	0	3
	Research Methodology & IPR	2	0	0	2
Laboratory-I	Modern Pharmaceutical Analytical Techniques lab	0	0	4	2
Laboratory-II	Pharmaceutical and food Analysis Lab	0	0	4	2
Audit - II	Audit course - I	2	0	0	0
	<b>TOTAL</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>18</b>

## I YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-III	Advanced Instrumental Analysis I	3	0	0	3
Professional Core-IV	Modern Bio-analytical Techniques	3	0	0	3
Professional Elective-III	1. Pharmaceutical Validation 2. Herbal Cosmetics 3. Pharmacoepidemiology and Pharmacoeconomics	3	0	0	3
Professional Elective-IV	1. Advanced Instrumental Analysis - II 2. Nutraceuticals 3. Clinical Research and Pharmacovigilance	3	0	0	3
Laboratory-III	Advanced Instrumental Analysis I Lab	0	0	4	2
Laboratory-IV	Modern Bio analytical Techniques Lab	0	0	4	2
	Mini Project with Seminar	2	0	0	2
Audit - II	Audit Course - II	2	0	0	0
	<b>TOTAL</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>18</b>

**II YEAR I Semester**

Course Code	Course Title	L	T	P	Credits
Professional Elective-V	1. Biostatistics	3	0	0	3
	2. Scale up and Technology Transfer				
	3. Production Area Design and Packaging Development				
Open Elective	Open Elective	3	0	0	3
Dissertation	Dissertation Work Review - II	0	0	12	6
	<b>Total</b>	<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>

**II YEAR II SEMESTER**

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review - III	0	0	12	6
Dissertation	Dissertation Viva-Voce	0	0	28	14
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>20</b>

**\*For Dissertation Work Review - I, Please refer 7.8 in R19 Academic Regulations.**

**Audit Courses I & II:**

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technological Learning
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## M.PHARMACY (PHARMACEUTICAL REGULATORY AFFAIRS)

R19 COURSE STRUCTURE AND SYLLABUS  
Effective from Academic Year 2019-20 Admitted Batch

## I YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-I	Good Regulatory Practice	3	0	0	3
Professional Core-II	Drug Regulatory Affairs	3	0	0	3
Professional Elective-I	1. Intellectual Property Rights 2. Total Quality Management 3. Pharmaceutical Validation	3	0	0	3
Professional Elective-II	1. Stability of Drugs and Dosage forms 2. Pharmaceutical Formulation Technology 3. Documentation and Regulatory Writing	3	0	0	3
	Research methodology and IPR	2	0	0	2
Laboratory- I	Regulatory Practice and Documentation Lab	0	0	4	2
Laboratory- II	Drug Regulation and Registration Lab	0	0	4	2
Audit - I	Audit Course - I	2	0	0	0
	<b>Total</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>18</b>

## I YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-III	Regulatory aspects of medical devices	3	0	0	3
Professional Core-IV	Regulatory aspects of herbals and biologicals	3	0	0	3
Professional Elective-III	1. Regulatory aspects of food and Nutraceuticals 2. Biostatistics and Research Methodology 3. Nano based Drug delivery systems	3	0	0	3
Professional Elective-IV	1. Clinical research and Pharmacovigilance 2. Nutraceuticals 3. Advanced Drug Delivery Systems	3	0	0	3
Laboratory- III	Regulatory aspects of herbals and biologicals Lab	0	0	4	2
Laboratory- IV	Regulatory aspects of medical devices Lab	0	0	4	2
	Mini Project with Seminar	2	0	0	2
Audit - II	Audit Course - II	2	0	0	0
	<b>Total</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>18</b>

**II YEAR I Semester**

Course Code	Course Title	L	T	P	Credits
Professional Elective-V	1. Analytical Method validation 2. Pharmaceutical Industry Management 3. Pharmaceutical Production technology	3	0	0	3
Open Elective	Open Elective	3	0	0	3
Dissertation	Dissertation Work Review - II	0	0	12	6
	<b>Total</b>	<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>

**II YEAR II SEMESTER**

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review - III	0	0	12	6
Dissertation	Dissertation Viva-Voce	0	0	28	14
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>20</b>

**\*For Dissertation Work Review - I, Please refer 7.8 in R19 Academic Regulations.**

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**GEETHANJALI COLLEGE OF PHARMACY**  
**CHEERYAL (V), KEESARA (M) MEDCHAL DIST, 501301**

**GCPK/CAC/3/2020-2021**

**Date: 21.08.2020**

Meeting will be held on 24.08.2020 at 11.00AM at college campus, Cheeryal (V), Keesara (M), Medchal Dist. to transact the following agenda.

  
(Dr. M. Ravi Kumar)


Principal/ Member Secretary

**Meeting Agenda**

- To confirm the last meeting minutes held on 17/8/2020
- To review the latest academic calendar issued by JNTUH
- To review the examination activities and examinations report of exam branch
- To discuss about Courses that include experiential learning
- To discuss about M.Pharm project submission details of R18 batch
- To finalize the viva date for Pharm D project students
- To review the status of online classes and other academic activities
- Progress of Webinar preparation to be conducted on 29.08.2020
- Presentation on R&D activities
- Review of Placement cell activities
- Arrangement of classes on Communication skills as a part of foundation classes
- Presentation and review on NAAC guidelines
- To review NBA activities
- Practice of safety measures during Covid -19 pandemic
- Any other issues

To

1. Secretary, Teja Educational Society.
2. Administrative department, GCPK.
3. All teaching and non teaching faculty.

  
**PRINCIPAL**  
**Geethanjali College of Pharmacy**  
**Cheeryal(V), Keesara(M), Medchal Dist. T.S.-501301.**

# GEETHANJALI COLLEGE OF PHARMACY

CHEERYAL (V), KEESARA (M) MEDCHAL DIST, 501301

## Minutes of Meeting

NATURE OF MEETING	College Academic Committee(CAC)
VENUE	Board Room
FREQUENCY OF MEET	Weekly once
CONVENED ON (DATE) 24.08.2020	TIME: FROM 11 :00 AM TO 1 :00 PM
LIST OF MEMBERS ATTENDED	Copy Attached
COPIES CIRCULATED TO	All members of the CAC

AGENDA POINTS	DETAILS OF DISCUSSION	REMARKS
1. To confirm the minutes of meeting held on 17/8/2020	The committee confirmed the minutes of last meeting held on 17 <sup>th</sup> Aug 2020.	Members Welcomed
2. Academic calendar issued by JNTUH, 2020-2021 3. Courses that include experiential learning	1. The principal discussed in detail about the latest academic calendar issued by JNTUH for the academic year 2020-2021. As per the academic calendar, classes commences from 24.08.2020 in online mode. 2. The principal discussed about the schedule of common entrance tests conducted by T.S Govt. 3. The courses that include experiential learning through project work and field work (Industry Training) for B. Pharmacy; through internship for Pharm .D and Pharm. D (PB); through Project work for M. Pharm programmes are discussed and approved for the Academic Year 2020-21. (The details of courses are enclosed in Annexure A)	The principal instructed the faculty to make a record of regular attendance in winnow. It is also suggested to make a record of online presentations periodically for submission to university if required.
4. Examination activities	Report on examination activities given by Exam in charge Dr. R. Siva kumar as follows, 1. All the regular students chosen the exam centre in Parent College itself. Also, except few supply students all are opted parent college. 2. Pharm D 6 <sup>th</sup> Year external internship <i>viva voce</i> conducted on 5 <sup>th</sup> Aug 2020, and the certificates also submitted to JNTUH.	The principal suggested exam in charge to use lecture halls effectively for the seating arrangement of exams to be conducted as per JNTUH guidelines during Covid pandemic.

  
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Geethanjali College of Pharmacy  
Cheeryal(V), Keesara(M), Medchal Dist. T.S.-501301.



	<p>3. As per the JNTUH guidelines, Zigzag seating pattern is recommended while writing final exam in the exam centre.</p> <p>4. One of the supply project student external Project <i>viva voce</i> panel members announced by JNTUH.</p>	
5.M.Pharm project submission details of R18 batch	Regarding M. Pharm Regular project (R18), exam in charge informed the members that JNTUH may issue notification in this month end or first week of September with reference to the last year notification.	The principal suggested M.Pharm project coordinator to frame guidelines and prepare schedule based on last year for M.Pharm project of R18 batch.
6.The viva for Pharm D 5 <sup>th</sup> year project students	<p>1. The principal discussed about Pharm D 5<sup>th</sup> year students project <i>viva voce</i> details with Dr. B. Rambabu, Head, Pharm D.</p> <p>2. Exam in charge informed the members that Pharm D 5<sup>th</sup> year students external Project <i>viva voce</i> panel members announced by JNTUH and conduct of viva process is in progress</p>	The principal suggested to complete the Pharm D 5 <sup>th</sup> year students external Project <i>viva voce</i> according to the schedule.
7. Status of online classes and other academic activities	<p>1. The HODs informed the principal about the status of online classes.</p> <p>2. The principal instructed the HODs and class in charges to monitor the online classes regularly and also suggested HODs to monitor class adjustments properly.</p>	The principal instructed all HODs to conduct department review meetings and report time to time.
8. Progress of Webinar preparation to be conducted on 29.08.2020	<p>The coordinator of Indo-US webinar to be conducted on 29.08.2020, Dr. M. Naga Ganesh reported that</p> <ol style="list-style-type: none"> <li>1. Brochure is prepared.</li> <li>2. Registration link is shared.</li> <li>3. Google meet and you tube are used for conducting webinar.</li> </ol>	Members appreciated
9. The activities of R&D	<p>Presentation on R&amp;D activities is given by R&amp;D Coordinator Dr. R. Siva kumar.</p> <p>The presentation focused on objectives of R&amp;D, action plan for writing project proposals, Importance of multidisciplinary research, thrust areas of research, various government agencies offering grants, recently sanctioned grants in various institutions and the report of research activities initiated in our college till now.</p>	<p>The principal suggested R&amp;D Coordinator,</p> <ol style="list-style-type: none"> <li>1. To prepare publication overview report of all departments from last 6 months.</li> <li>2. To classify the thrust areas of research and allot to the various departments.</li> <li>3. To list out the R&amp;D challenges in Geethanjali College of Pharmacy.</li> <li>4. To report on our preparedness.</li> <li>5. Student project allocation and regular follow up of R&amp;D</li> </ol>

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Cheeryal(V), Keesara(M), Medchal Dist. T.S.-501301.

10.Placement cell activities	Placement report given by Dr. N. Anjaneyulu as follows, <ol style="list-style-type: none"> <li>1. Our college is applied for National apprentice training scheme.</li> <li>2. Gland pharma responded to placement cell and ready to conduct interviews through Google meet.</li> </ol>	The principal instructed the placement cell coordinator to collect and give report on colleges offering better placements.
11.Communication skills as a part of foundation classes	It is decided to include communication skills as a part of foundation classes.	The principal suggested Placement Coordinator to follow up and include communication skills as a part of foundation classes.
12. Study of NAAC guidelines	<ol style="list-style-type: none"> <li>1. Dr.P.Neeraja gave presentation on NAAC guidelines.</li> <li>2. The presentation focused on NAAC eligibility criterion for HEIs, criteria, assessment and accreditation process flow charts, weightage for qualitative and quantitative metrics, fee details, assessment outcomes and final grading.</li> </ol>	The principal suggested to study the self-study report (SSR) of NAAC accredited institutions.
13. NBA activities	The principal reviewed the NBA activities	-
14. Safety measures during Covid - 19 pandemic	It is informed to members that all teaching and non-teaching faculty should follow the safety measures during Covid -19 pandemic strictly.	Members agreed.
15. Any other issues	<ol style="list-style-type: none"> <li>1. The principal discussed about OC students admission cut off rank in other reputed colleges to assess our college rank as suggested by the secretary sir.</li> <li>2. Placement coordinator reported that based on availability of data, our college rank lies between 10-20.</li> </ol>	The principal suggested placement coordinator to give detailed report on best colleges based on OC students admission cut off rank.

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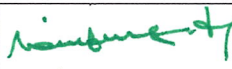
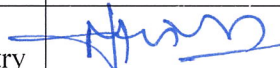


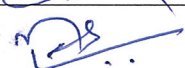





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# GEETHANJALI COLLEGE OF PHARMACY

CHEERYAL (V), KEESARA (M) MEDCHAL DIST, 501301

## Members attended:

S. No.	Name	Designation	Signature
1	Dr. M. Ravi kumar	Professor &Principal	
2	Dr. M. Srinivas	HOD, Pharmaceutical Chemistry	
3	Dr. T. Mangilal	HOD, Pharmaceutics	- AB -
4	Dr. R. Nagakishore	HOD, Pharmacology	- AB -
5	Dr. Bharat Bhushan Mohapatra	HOD, Pharmacognosy	
6	Dr. R. Sivakumar	Head, Exam branch	
7	Dr. B. Rambabu	HOD, PharmD	
8	Dr. N. Anjaneyulu	HOD, Pharm.analysis(M.Pharm)	
9	Dr. M. Nagaganesh	HOD, Pharm.Regulatory affairs (M.Pharm)	
10	Dr. P. Neeraja	Associate professor, Dept of Pharmaceutics	
11	Dr. J. Sunil	Associate professor, Dept of Pharmaceutical chemistry	
12	Dr. Y. Shiva kumar	Associate professor, Dept of Pharmaceutics	

  
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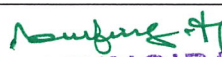
# GEETHANJALI COLLEGE OF PHARMACY

Approved by AICTE, PCI New Delhi, Permanently Affiliated to JNTUH & B. Pharmacy Accredited by NBA  
Recognized Under UGC Section 2F & 12B of UGC Act, 1956, by DSIR-SIRO & HI/BI of MSME,  
Cheeryal (V), Keesara (M), Medchal-Malkajgiri Dist., Telangana State- 501301

## ANNEXURE-A

The following courses that include experiential learning through project work and field work (Industry Training) for B. Pharmacy (Program Code: Z51R; JNTUH Regulation: R17) are approved by the College Academic Committee for the Academic Year 2020-21.

S.No.	Year of Study	Name of the Course	Course Code
1	I Year	Human Anatomy and Physiology I	PS101
2		Pharmaceutical Analysis I	PS102
3		Pharmaceutics I	PS103
4		Pharmaceutical Inorganic Chemistry-I	PS104
5		Anatomy and Physiology-I Lab	PS108
6		Pharmaceutical Analysis-I Lab	PS109
7		Pharmaceutics I Lab	PS110
8		Pharmaceutical Inorganic Chemistry-I Lab	PS111
9		Human Anatomy and Physiology II	PS201
10		Pharmaceutical Organic Chemistry I	PS202
11		Biochemistry	BS203
12		Pathophysiology	BS204
13		Human Anatomy and Physiology II Lab	PS206
14		Pharmaceutical Organic Chemistry I Lab	PS207
15		Biochemistry Lab	BS208
16	II Year	Pharmaceutical Organic Chemistry-II	PS301
17		Physical Pharmaceutics-I	PS302
18		Pharmaceutical Microbiology	BS303
19		Pharmaceutical Engineering	PS304
20		Pharmaceutical Organic Chemistry-II Lab	PS305
21		Physical Pharmaceutics-I Lab	PS306
22		Pharmaceutical Microbiology Lab	BS307
23		Pharmaceutical Engineering Lab	PS308
24		Pharmaceutical Organic Chemistry-III	PS401
25		Medicinal Chemistry-I	PC402
26		Pharmaceutics-II	PS403
27		Pharmacology-I	PC404
28		Pharmacognosy and Phytochemistry-I	PC405

  
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29		Medicinal Chemistry-I Lab	PC406	
30		Physical Pharmaceutics-II Lab	PS407	
31		Pharmacology-I Lab	PC408	
32		Pharmacognosy and Phytochemistry-I Lab	PC409	
33	<b>III Year</b>	Medicinal Chemistry II	PS501	
34		Industrial Pharmacy - I	PS502	
35		Pharmacology II	PS503	
36		Pharmacognosy and Phytochemistry - II	PS504	
37		Generic Product Development	PS505	
38		Green Chemistry	PS506	
39		Cell and Molecular Biology	PS507	
40		Cosmetic Science	PS508	
41		Industrial Pharmacy Lab	PS509	
42		Pharmacology - II Lab	PS510	
43		Pharmacognosy and Phytochemistry - II Lab	PS511	
44		Medicinal Chemistry - III	PS601	
45		Pharmacology - III	PS602	
46		Herbal Drug Technology	PS603	
47		Biopharmaceutics and Pharmacokinetics	PS604	
48		Pharmaceutical Quality Assurance	PS605	
49		Pharmaceutical Biotechnology	PS606	
50		Bioinformatics	PS607	
51		Screening Methods in Pharmacology	PS608	
52		Medicinal Chemistry - III Lab	PS609	
53		Pharmacology - III Lab	PS610	
54		Herbal Drug Technology Lab	PS611	
55		<b>IV Year</b>	Instrumental Methods of Analysis	PS701
56			Industrial Pharmacy-II	PS702
57			Pharmacy Practice	PS703
58			Novel Drug Delivery Systems	PS704
59			Pharmaceutical Marketing	PS705
60			Pharmaceutical Regulatory Science	PS706
61	Pharmacovigilance		PS707	
62	Quality Control and Standardization of Herbals		PS708	
63	Instrumental Methods of Analysis Lab		PS709	
64	Practice School		PS710	
65	Industrial Training		PS711	
66	Biostatistics and Research Methodology		PS801	
67		Computer Aided Drug Design	PS804	
68		Nano Technology	PS805	
69		Experimental Pharmacology	PS806	

70		Advanced Instrumentation Techniques	PS807
71		Project Work	PS808

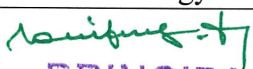


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Geethanjali College of Pharmacy  
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The following courses that include experiential learning through internship for Pharm. D (Program Code: Z51T; JNTUH Regulation: R08) are approved by the College Academic Committee for the Academic Year 2020-21.

S.No.	Year of Study	Name of the Course	Course Code
1	I Year	Human Anatomy & Physiology	PD.C11
2		Pharmaceutics	PD.C12
3		Medicinal Biochemistry	PD.C13
4		Pharmaceutical Organic Chemistry	PD.C14
5		Pharmaceutical Inorganic Chemistry	PD.C15
6		Human Anatomy & Physiology Lab	PD.C19
7		Pharmaceutics Lab	PD.C110
8		Medicinal Biochemistry Lab	PD.C111
9		Pharmaceutical Organic Chemistry Lab	PD.C112
10		Pharmaceutical Inorganic Chemistry Lab	PD.C113
11	II Year	Pathophysiology	PD.C21
12		Pharmaceutical Microbiology	PD.C22
13		Pharmacognosy & Phyto Pharmaceuticals	PD.C23
14		Pharmacology-I	PD.C24
15		Community Pharmacy	PD.C25
16		Pharmacotherapeutics-I	PD.C26
17		Pharmaceutical Microbiology Lab	PD.C27
18		Pharmacognosy & Phyto Pharmaceuticals Lab	PD.C28
19		Pharmacotherapeutics-I Lab	PD.C29
20		Pharmacology-I Lab	PD.C210
21	III Year	Pharmacology-II	PD.C31
22		Pharmaceutical Analysis	PD.C32
23		Pharmacotherapeutics-II	PD.C33
24		Medicinal Chemistry	PD.C35
25		Pharmaceutical Formulations	PD.C36
26		Pharmacology -II Lab	PD.C37
27		Pharmaceutical Analysis Lab	PD.C38
28		Pharmacotherapeutics-II Lab	PD.C39
29		Medicinal Chemistry Lab	PD.C310
30		Pharmaceutical Formulations Lab	PD.C311
31	IV Year	Pharmacotherapeutics-III	PD.C41
32		Hospital Pharmacy	PD.C42
33		Clinical Pharmacy	PD.C43
34		Biostatistics & Research Methodology	PD.C44

  
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35		Biopharmaceutics & Pharmacokinetics	PD.C45
36		Clinical Toxicology	PD.C46
37		Pharmacotherapeutics-III Lab	PD.C47
38		Hospital Pharmacy Lab	PD.C48
39		Clinical Pharmacy Lab	PD.C49
40		Biopharmaceutics & Pharmacokinetics Lab	PD.C410
41	<b>V Year</b>	Clinical Research	PD.C51
42		Pharmacoepidemiology & Pharmacoeconomics	PD.C52
43		Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	PD.C53
44		Clerkship	PD.C54
45		Project Work	PD.C55
46	<b>VI Year</b>	Internship	PD.C61



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The following courses that include experiential learning through internship for Pharm. D (PB) (Program Code: Z55T; JNTUH Regulation: R08) are approved by the College Academic Committee for the Academic Year 2020-21.

S.No.	Year of Study	Name of the Course	Course Code
1	I Year	Pharmacotherapeutics-III	PD.C41
2		Hospital Pharmacy	PD.C42
3		Clinical Pharmacy	PD.C43
4		Biostatistics & Research Methodology	PD.C44
5		Biopharmaceutics & Pharmacokinetics	PD.C45
6		Clinical Toxicology	PD.C46
7		Pharmacotherapeutics-III Lab	PD.C47
8		Hospital Pharmacy Lab	PD.C48
9		Clinical Pharmacy Lab	PD.C49
10		Biopharmaceutics & Pharmacokinetics Lab	PD.C410
11		Pharmacotherapeutics I&II	PD.C411
12		Pharmacotherapeutics I&II LAB	PD.C412
13	II Year	Clinical Research	PD.C51
14		Pharmacoepidemiology & Pharmacoeconomics	PD.C52
15		Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	PD.C53
16		Clerkship	PD.C54
17		Project Work	PD.C55
18	III Year	Internship	PD.C61

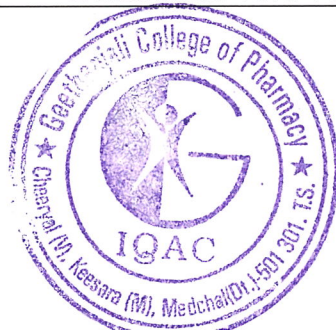


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The following courses that include experiential learning through Project work for M. Pharm-Pharmaceutics (Program Code: Z51S03; JNTUH Regulation: R19) are approved by the College Academic Committee for the Academic Year 2020-21.

S.No.	Year of Study	Name of the Course	Course Code
1	I Year	Modern Pharmaceutics-I	MPT.C111
2		Applied Biopharmaceutics and Pharmacokinetics	MPT.C112
3		Advanced Physical Pharmaceutics	MPT.C113
4		Drug Regulatory Affairs	MPT.C114
5		Total Quality Management	MPT.C115
6		Cosmetics and Cosmeceuticals	MPT.C116
7		Pharmaceutical Validation	MPT.C117
8		Stability of Drugs and Dosage Forms	MPT.C118
9		Research Methodology And IPR	MPT.C119
10		Modern Pharmaceutics – I Lab	MPT.C120
11		Applied Biopharmaceutics and Pharmacokinetics Lab	MPT.C121
12		Audit Course- I	MPT.C122
13		Modern Pharmaceutics-II	MPT.C121
14		Advanced Drug Delivery Systems	MPT.C122
15		Industrial Pharmacy	MPT.C123
16		Herbal Cosmetics	MPT.C124
17		Pharmaceutical Management	MPT.C125
18		Nano Based Drug Delivery Systems	MPT.C126
19		Nutraceuticals	MPT.C127
20		Clinical Research and Pharmacovigilance	MPT.C128
21		Modern Pharmaceutics – II Lab	MPT.C129
22		Advanced Drug Delivery System Lab	MPT.C130
23		Mini Project with Seminar	MPT.C131
24		Audit Course- II	MPT.C132
25	II Year	Biostatistics	MPT.C211
26		Scale Up and Technology Transfer	MPT.C212
27		Production Area, Design and Packaging Development	MPT.C213
28		Open Elective	MPT.C214
29		Dissertation Work Review - II	MPT.C215
30		Dissertation Work Review - III	MPT.C221
31		Dissertation Viva-Voce	MPT.C222



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The following courses that include experiential learning through Project work for M. Pharm-Pharmaceutical Regulatory Affairs (Program Code: Z51S13; JNTUH Regulation: R19) are approved by the College Academic Committee for the Academic Year 2020-21.

S.No.	Year of Study	Name of the Course	Course Code
1	I Year	Good Regulatory Practice	M.P111
2		Drug Regulatory Affairs	M.P112
3		Intellectual Property Rights	M.P113
4		Total Quality Management	M.P114
5		Pharmaceutical Validation	M.P115
6		Stability of Drugs and Dosage Forms	M.P116
7		Pharmaceutical Formulation Technology	M.P117
8		Documentation and Regulatory Writing	M.P118
9		Research Methodology And IPR	M.P119
10		Regulatory Practice and Documentation Lab	M.P120
11		Drug Regulation and Registration Lab	M.P121
12		Audit Course- I	M.P122
13		Regulatory Aspects of Medical Devices	M.P121
14		Regulatory Aspects of Herbals and Biologicals	M.P122
15		Regulatory Aspects of Food and Nutraceuticals	M.P123
16		Biostatistics and Research Methodology	M.P124
17		Nano Based Drug Delivery Systems	M.P125
18		Clinical Research and Pharmacovigilance	M.P126
19		Nutraceuticals	M.P127
20		Advanced Drug Delivery Systems	M.P128
21		Regulatory Aspects of Herbals and Biologicals Lab	M.P129
22		Regulatory Aspects of Medical Devices Lab	M.P129
23		Mini Project with Seminar	M.P130
24		Audit Course- II	M.P131
25	II Year	. Analytical Method Validation	M.P212
26		. Pharmaceutical Industry Management	M.P213
27		Pharmaceutical Production Technology	M.P214
28		Open Elective	M.P215
29		Dissertation Work Review - II	M.P221
30		Project Work Review II	M.P222
31		Project Evaluation (Viva-voce)	

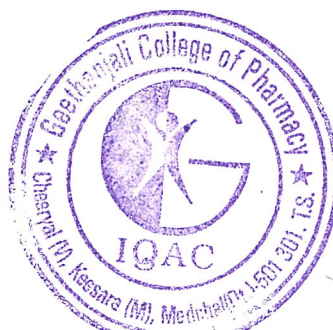


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The following courses that include experiential learning through Project work for M. Pharm-Pharmaceutical Analysis (Program Code: Z51S12; JNTUH Regulation: R19) are approved by the College Academic Committee for the Academic Year 2020-21.

S.No.	Year of Study	Name of the Course	Course Code
1	I Year	Modern Pharmaceutical Analytical Techniques	MPA.C111
2		Pharmaceutical and Food Analysis	MPA.C112
3		Advanced Pharmaceutical Analysis	MPA.C113
4		Drug Regulatory Affairs	MPA.C114
5		Phytochemistry	MPA.C115
6		Quality Control and Quality Assurance	MPA.C116
7		Cosmetics and Cosmeceuticals	MPA.C117
8		Stability of Drugs and Dosage Forms	MPA.C118
9		Research Methodology & Intellectual Property Rights	MPA.C119
10		Modern Pharmaceutical Analytical Techniques Lab	MPA.C120
11		Pharmaceutical and Food Analysis Lab	MPA.C121
12		Audit Course- I	MPA.C122
13		Advanced Instrumental Analysis I	MPA.C123
14		Modern Bio-Analytical Techniques	MPA.C124
15		Pharmaceutical Validation	MPA.C125
16		Herbal Cosmetics	MPA.C126
17		Pharmacoepidemiology And Pharmacoeconomics	MPA.C127
18		Advanced Instrumental Analysis - II	MPA.C128
19		Nutraceuticals	MPA.C129
20		Clinical Research and Pharmacovigilance	MPA.C130
21		Advanced Instrumental Analysis I Lab	MPA.C131
22		Modern Bio Analytical Techniques Lab	MPA.C132
23		Mini Project with Seminar	MPA.C133
24		Audit Course- II	MPA.C134
25	II Year	Biostatistics	MPA.C211
26		Scale Up and Technology Transfer	MPA.C212
27		Production Area Design and Packaging Development	MPA.C213
28		Open Elective	MPA.C214
29		Dissertation Work Review - II	MPA.C215
30		Dissertation Work Review - III	MPA.C221
31		Dissertation Viva-Voce	MPA.C222



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