

1.2.1 PERCENTAGE OF CBCS PROGRAMS



VISHNU INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCH

VISHNUPUR, NARSAPUR, MEDAK DT.

1.2.1 Percentage of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented (10)

Programme Code	Programme name	Year of Introduction	Status of implemetation of CBCS / elective course system (Yes/No)	Year of implemetation of CBCS / elective course system
1R -00	B.PHARMACY	2007-2008	Yes	2016
1S-03	M.PHARMACY (PHARMACEUTICS)	2011-2012	Yes	2015
1S-04	M.PHARMACY(PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE)	2012-2013	Yes	2015
1S-01	M.PHARMACY (PHARMACOLOGY)	2019-2020	Yes	2017
1R-00	B.PHARMACY	2022-2023	Yes	2022
1S-03	M.PHARMACY (PHARMACEUTICS)	2022-2023	Yes	2022
1S-04	M.PHARMACY(PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE)	2022-2023	Yes	2022
1S-01	M.PHARMACY (PHARMACOLOGY)	2022-2023	Yes	2022

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1.2.1 Structure of the program clearly indicating courses/credits/elective.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by State Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

ACADEMIC REGULATIONS FOR B.PHARM. REGULAR STUDENTS

WITH EFFECT FROM THE

ACADEMIC YEAR 2016-17 (R-16)

1.0 Under-Graduate Degree Programme in Pharmacy

- 1.1 JNTUH offers a 4-year (8 semesters) **Bachelor of Pharmacy** (B.Pharm.) degree programme, under **Choice Based Credit System (CBCS)** at its non-autonomous constituent and affiliated colleges with effect from the academic year 2016-17.

2.0 Eligibility for admission

- 2.1 Admission to the under graduate programme shall be made either on the basis of the merit rank obtained by the qualified candidate in entrance test conducted by the Telangana State Government (EAMCET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.

- 2.2 The medium of instructions for the entire under graduate programme in Pharmacy will be **English** only.

3.0 B.Pharm. Programme structure

- 3.1 A student after securing admission shall pursue the under graduate programme in B.Pharm. in a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years (16 semesters) starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Pharm course.

Each semester is structured to provide 24 credits, totaling to 192 credits for the entire B.Pharm. programme.

Each student shall secure 192 credits (with CGPA ≥ 5) required for the completion of the under graduate programme and award of the B.Pharm. degree.

- 3.2 **UGC/ AICTE** specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

3.2.1 Semester scheme

Each under graduate programme is of 4 academic years (8 semesters) with the academic year being divided into two semesters of 22 weeks (≥ 90 instructional days) each, each

semester having - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)', Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and curriculum / course structure as suggested by AICTE are followed.

3.2.2 Credit courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (lecture periods: tutorial periods: practical periods: credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses.
- One credit for two hours/ week/ semester for laboratory/ practical (P) courses or tutorials (T).

Courses like environmental science, human values and professional ethics, gender sensitization lab and other student activities like NCC/NSO and NSS are identified as mandatory courses. These courses will not carry any credits.

3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in Pharmacy (B.Pharm. degree programmes) are broadly classified as follows. The university has followed almost all the guidelines issued by AICTE/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1	Foundation Courses (FnC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects.
2		PS - Pharmaceutical Sciences	Includes fundamental Pharmacy Subjects.
3		HS – Humanities and Social sciences	Includes subjects related to humanities, social sciences and management.
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline.
5	Elective Courses (ElC)	PE – Professional Electives	Includes elective subjects related to the parent discipline.
6	Core Courses	Project Work	B.Pharm. project or UG project or UG major project
7		Seminar	Seminar/ Colloquium based on core contents related to parent discipline.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)

11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)
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4.0 Course registration

- 4.1 A 'faculty advisor or counselor' shall be assigned to a group of 15 students, who will advise student about the under graduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The academic section of the college invites 'registration forms' from students before the beginning of the semester through 'on-line registration', ensuring 'date and time stamping'. The on-line registration requests for any 'current semester' shall be **completed before the commencement of semester end examinations of the 'preceding semester'**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the '**written approval**' from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor/ counselor and the student.
- 4.4 A student may be permitted to register for the subjects/ courses of **choice** with a total of 24 credits per semester (minimum of 20 credits and maximum of 28 credits per semester and permitted deviation of $\pm 17\%$), based on **progress** and SGPA/ CGPA, and completion of the '**pre-requisites**' as indicated for various subjects/ courses, in the department course structure and syllabus contents. However, a **minimum** of 20 credits per semester must be registered to ensure the '**studentship**' in any semester.
- 4.5 Choice for 'additional subjects/ courses' to reach the maximum permissible limit of 28 credits (above the typical 24 credit norm) must be clearly indicated, which needs the specific approval and signature of the faculty advisor/ counselor.
- 4.6 If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** registration for the subject(s) / course(s) under a given/ specified course group/ category as listed in the course structure, only the first mentioned subject/ course in that category will be taken into consideration.
- 4.7 Subject/ course options exercised through **on-line** registration are final and **cannot** be changed or inter-changed; further, alternate choices also will not be considered. However, if the subject/ course that has already been listed for registration by the Head of the Department in a semester could not be offered due to any unforeseen or unexpected reasons, then the student shall be allowed to have alternate choice either for a new subject (subject to offering of such a subject), or for another existing subject (subject to availability of seats). Such alternate arrangements will be made by the Head of the Department, with due notification and time-framed schedule, within the **first week** after the commencement of class-work for that semester.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

ACADEMIC REGULATIONS OF **B.PHARM.** (REGULAR/FULL TIME) STUDENTS WITH EFFECT FROM THE ACADEMIC YEAR 2017-18 (R-17)

1.0 Under-Graduate Degree Programme in Pharmacy

- 1.1** JNTUH offers a 4-year (8 semesters) **Bachelor of Pharmacy (B.Pharm.)** degree programme, under **Choice Based Credit System (CBCS)** at its affiliated colleges with effect from the academic year 2017-18.

2.0 Eligibility for admission

- 2.1** Admission to the under graduate programme shall be made either on the basis of the merit rank obtained by the qualified candidate in entrance test conducted by the Telangana State Government (EAMCET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.

- 2.2** The medium of instructions for the entire under graduate programme in Pharmacy will be **English** only.

3.0 B.Pharm. Programme structure

- 3.1** A student after securing admission shall pursue the under graduate programme in B.Pharm. in a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years (16 semesters) starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Pharm course.

A student shall register for all subjects for covering 196 credits and each student shall secure 196 credits (with CGPA ≥ 5) required for the completion of the under graduate programme and award of the B.Pharm. degree.

- 3.2** **UGC/ AICTE** specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

3.2.1 Semester scheme

Each under graduate programme is of 4 academic years (8 semesters) with the academic year being divided into two semesters of 22 weeks (≥ 90 instructional days) each, each semester shall have - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester

System (CBSS) as indicated by UGC and curriculum. course structure as suggested by AICTE are followed.

3.2.2 Credit courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (lecture periods: tutorial periods: practical periods: credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses.
- One credit for two hours/ week/ semester for laboratory/ practical (P) courses or tutorials (T).

Courses like environmental science, human values and professional ethics, gender sensitization lab and other student activities like NCC/NSO and NSS are identified as mandatory courses. These courses will not carry any credits.

3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in Pharmacy (B.Pharm. degree programmes) are broadly classified as follows. The university has followed almost all the guidelines issued by AICTE/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1	Foundation Courses (FuC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects.
2		PS - Pharmaceutical Sciences	Includes fundamental Pharmacy Subjects.
3		HS – Humanities and Social sciences	Includes subjects related to humanities, social sciences and management.
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline.
5	Elective Courses (ElC)	OE – Open Electives	Includes elective subjects related to inter-disciplinary areas of Pharmacy or other than Pharmacy
6	Core Courses	Project Work	B.Pharm. project or UG project or UG major project
7		Seminar	Seminar/ Colloquium based on core contents related to parent discipline.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
HYDERABAD**

(Established by Act No.30 of 2008)

Kukatpally, Hyderabad-500085, Telangana State (India)

**Academic Regulations of M.Pharm (Regular/Full Time) Programmes, 2017-18 (R17)
(CBCS)**
(Effective for the students admitted into 1 year from the Academic Year 2017-18 and onwards)

1.0 Post-Graduate Degree Programmes in Pharmacy (PGP in Pharmacy) Jawaharlal Nehru Technological University Hyderabad (JNTUH) offers **Two Years (Four Semesters)** full-time Master of Pharmacy (M.Pharm.) Degree programmes, under **Choice Based Credit System (CBCS)** at its constituent (non- autonomous) and affiliated colleges in different specializations.

2.0 Eligibility for Admissions

2.1 Admission to the PGPs shall be made subject to eligibility, qualification and specializations prescribed by the University from time to time, for each specialization under each M.Pharm programme.

2.2 Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GPAT Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana State Government (PGE CET) for M.Pharm. programmes / an entrance test conducted by JNTUH/ on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.

2.3 The medium of instructions for all PG Programmes will be **ENGLISH** only.

3.0 M. Pharm. Programme (PGP in Pharmacy) Structure

3.1 The M.Pharm Programmes in Pharmacy of JNTUH are of Semester pattern, with **Four Semesters** consisting of **Two** academic years, each academic year having **Two Semesters** (First/Odd and Second/Even Semesters). Each Semester shall be of 22 weeks duration (inclusive of Examinations), with a minimum of 90 instructional days per Semester.

3.2 The student shall not take more than four academic years to fulfill all the academic requirements for the award of M.Pharm. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M.Pharm. programme.

3.3 **UGC/AICTE** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:

3.3.1 Semester Scheme

Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Seminar', or 'Comprehensive Viva', or 'Project' as the case may be.


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Education & Research
Narsapur, Medak Dist-501103, T.S.



3.3.2 Credit Courses

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern:

- One credit for one hour/week/semester for theory/lecture (L) courses
- One credit for two hours/ week/semester for laboratory/ practical (P) courses or tutorials (T)

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations, and identified mandatory courses, if any, will not carry credits.

3.3.3 Subject Course Classification

All subjects/courses offered for the Post-Graduate Programme in Pharmacy (M.Pharm. Degree Programme) are broadly classified as follows. The University has followed in general the guidelines issued by AICTE/UGC.

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S.No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses (CoC)	PC- Professional Core	Includes subjects related to the parent discipline/ department
		Project Work	M.Pharm Project or PG Project or Major Project
		Seminar	Seminar/Colloquium based on core contents related to parent discipline/department
		Comprehensive Viva-Voce	Viva-voce covering all the PG subjects studied during the course work and related aspects
2	Elective Courses (ELE)	PE - Professional Electives	Includes elective subjects related to the parent discipline/ department
		OE - Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the parent discipline/ department
Total number of Credits			

4.0 Course Registration

4.1 A 'Faculty Advisor or Counselor' shall be assigned to each specialization, who will advise on the Post Graduate Programme (PGP), its Course Structure and Curriculum, Choice/Option for Subjects/ Courses, based on his competence, progress, pre-requisites and interest.

4.2 The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of SEEs (Semester End Examinations) of the 'PRECEDING SEMESTER'.



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Academic Regulations of M.Pharm. (Regular/Full Time) Programmes, 2019-20 (R19)
(CBCS)

(Effective for the students admitted into 1 year from the Academic Year 2019-20 and onwards)

- 1.0 **Post-Graduate Degree Programmes in Pharmacy (PGP in Pharmacy)** Jawaharlal Nehru Technological University Hyderabad (JNTUH) offers **Two Years (Four Semesters)** full-time Master of Pharmacy (M.Pharm.) Degree programmes, under **Choice Based Credit System (CBCS)** at its constituent (non-autonomous) and affiliated colleges in different specializations.
- 2.0 **Eligibility for Admissions**
 - 2.1 Admission to the PGPs shall be made subject to eligibility, qualification and specializations prescribed by the University from time to time, for each specialization under each M.Pharm. programme.
 - 2.2 Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GPAT Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana State Government (PGECET) for M.Pharm. programmes / an entrance test conducted by JNTUH/ on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.
 - 2.3 The medium of instructions for all PG Programmes will be **ENGLISH** only.
- 3.0 **M.Pharm. Programme (PGP in Pharmacy) Structure**
 - 3.1 The M.Pharm. Programmes in Pharmacy of JNTUH are of Semester pattern, with **Four** Semesters consisting of **Two** academic years, each academic year having **Two** Semesters (First/Odd and Second/Even Semesters). Each Semester shall be of 22 weeks duration (inclusive of Examinations), with a minimum of 90 instructional days per Semester.
 - 3.2 The student shall not take more than four academic years to fulfill all the academic requirements for the award of M.Pharm. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M.Pharm. programme.
 - 3.3 **UGC/AICTE** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:
 - 3.3.1 **Semester Scheme**

Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Design/Drawing Subject', or 'Mini Project with Seminar', or 'Dissertation', as the case may be.
 - 3.3.2 **Credit Courses**

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern:



- One credit for one hour/week/semester for theory/lecture (L) courses
- One credit for two hours/ week/semester for laboratory/ practical (P) courses or tutorials (T)

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations and mandatory courses (**Audit Courses**) will not carry any credits.

3.3.3 Subject Course Classification

All subjects/courses offered for the Post-Graduate Programme in Pharmacy (M.Pharm. Degree Programme) are broadly classified as follows. The University has followed in general the guidelines issued by AICTE/UGC.

S.No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses (CoC)	PC- Professional Core	Includes subjects related to the Specialization in Pharmacy
		Dissertation	M.Pharm. Project or PG Project or Major Project
		Mini Project with Seminar	Seminar based on core contents related to the Specialization in Pharmacy
2	Elective Courses (EiE)	PE - Professional Electives	Includes elective subjects related to the Specialization in Pharmacy
		OE - Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the Specialization in Pharmacy
3	Mandatory Courses	--	Non-Credit Audit Courses

4.0 Course Registration

- 4.1 A 'Faculty Advisor or Counselor' shall be assigned to each specialization, who will advise on the Post Graduate Programme (PGP), its Course Structure and Curriculum, Choice/Option for Subjects/Courses, based on his competence, progress, pre-requisites and interest.
- 4.2 The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of SEEs (Semester End Examinations) of the 'PRECEDING SEMESTER'.
- 4.3 A Student can apply for ON-LINE Registration, ONLY AFTER obtaining the 'WRITTEN APPROVAL' from his Faculty Advisor, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, Faculty Advisor and the Student).
- 4.4 If the Student submits ambiguous choices or multiple options or erroneous entries during ON-LINE Registration for the Subject(s) / Course(s) under a given/ specified Course Group/ Category as listed in the Course Structure, only the first mentioned Subject/ Course in that Category will be taken into consideration.
- 4.5 Subject/ Course Options exercised through ON-LINE Registration are final and CANNOT be changed, nor can they be inter-changed; further, alternate choices also will not be considered. However, if the Subject/ Course that has already been listed for Registration by the University in a Semester could not be offered due to unforeseen or unexpected reasons, then the Student will be allowed to have alternate



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Academic Regulations of M.Pharm. (Regular/Full Time) Programmes, 2022-23 (R22)
(CBCS)

(Effective for the students admitted into 1 year from the Academic Year 2022-23 and onwards)

- 1.0 Post-Graduate Degree Programmes in Pharmacy (PGP in Pharmacy)** Jawaharlal Nehru Technological University Hyderabad (JNTUH) offers **Two** Years (**Four** Semesters) full-time Master of Pharmacy (M.Pharm.) Degree programmes, under Choice Based Credit System (CBCS) at its constituent (non-autonomous) and affiliated colleges in different specializations.
- 2.0 Eligibility for Admissions**
 - 2.1** Admission to the PGPs shall be made subject to eligibility, qualification and specializations prescribed by the University from time to time, for each specialization under each M.Pharm. programme.
 - 2.2** Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GPAT Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana State Government (PGECET) for M.Pharm. programmes / an entrance test conducted by JNTUH/ on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.
 - 2.3** The medium of instructions for all PG Programmes will be **ENGLISH** only.
- 3.0 M.Pharm. Programme (PGP in Pharmacy) Structure**
 - 3.1** The M.Pharm. Programmes in Pharmacy of JNTUH are of Semester pattern, with **Four** Semesters consisting of **Two** academic years, each academic year having **Two** Semesters (First/Odd and Second/Even Semesters). Each Semester shall be of 23 weeks duration (inclusive of Examinations), with a minimum of **100** instructional days per Semester.
 - 3.2** The student shall not take more than **four** academic years to fulfill all the academic requirements for the award of M.Pharm. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M.Pharm. programme.
 - 3.3** **UGC/PCI** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:
 - 3.3.1 Semester Scheme**

Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Design Subject', or 'Mini Project with Seminar', or 'Dissertation', as the case may be.
 - 3.3.2 Credit Courses**

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods:



Credits) structure based on the following general pattern:

- One credit for one hour/week/semester for theory/lecture (L) courses
- One credit for two hours/ week/semester for laboratory/ practical (P) courses or tutorials (T)

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations and mandatory courses (**Audit Courses**) will not carry any credits.

3.3.3 Subject Course Classification

All subjects/courses offered for the Post-Graduate Programme in Pharmacy (M.Pharm. Degree Programme) are broadly classified as follows. The University has followed in general the guidelines issued by UGC/PCI.

S.No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses (CoC)	PC- Professional Core	Includes subjects related to the Specialization in Pharmacy
		Dissertation	M.Pharm. Project or PG Project or Major Project
		Mini Project/ Seminar	Mini Project/Seminar based on core contents related to the Specialization in Pharmacy
2	* Elective Courses (EiE)	PE - Professional Electives	Includes elective subjects related to the Specialization in Pharmacy
		OE - Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the Specialization in Pharmacy
3	Mandatory Courses	---	Non-Credit Audit Courses

4.0 Course Registration

- 4.1 A 'Faculty Advisor or Counselor' shall be assigned to each specialization, who will advise on the Post Graduate Programme (PGP), its Course Structure and Curriculum, Choice/Option for Subjects/ Courses, based on his competence, progress, pre-requisites and interest.
- 4.2 The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of SEEs (Semester End Examinations) of the 'PRECEDING SEMESTER'.
- 4.3 A Student can apply for ON-LINE Registration, ONLY AFTER obtaining the 'WRITTEN APPROVAL' from his Faculty Advisor, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, Faculty Advisor and the Student).
- 4.4 If the Student submits ambiguous choices or multiple options or erroneous entries during ON-LINE Registration for the Subject(s) / Course(s) under a given/ specified Course Group/ Category as listed in the Course Structure, only the first mentioned Subject/ Course in that Category will be taken into consideration.



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(Established by Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

**ACADEMIC REGULATIONS OF B.PHARM. (REGULAR/FULL TIME) STUDENTS
WITH EFFECT FROM THE ACADEMIC YEAR 2022-23 (R-22)**

1.0 Under-Graduate Degree Programme in Pharmacy

- 1.1 JNTUH offers a 4-year (8 semesters) **Bachelor of Pharmacy** (B.Pharm.) degree programme, under Choice Based Credit System (CBCS) at its affiliated colleges with effect from the academic year 2022-23.

2.0 Eligibility for admission

- 2.1 Admission to the under graduate programme shall be made either on the basis of the merit rank obtained by the qualified candidate in entrance test conducted by the Telangana State Government (EAMCET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.

- 2.2 The medium of instructions for the entire under graduate programme in Pharmacy will be **English** only.

3.0 B.Pharm. Programme structure

- 3.1 A student after securing admission shall pursue the under graduate programme in B.Pharm. in a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years (16 semesters) starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Pharm course.

A student shall register for all subjects for covering **209** credits and each student shall secure **209** credits (with CGPA ≥ 6) required for the completion of the under graduate programme and award of the B.Pharm. degree.

- 3.2 **UGC/ PCI** specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

3.2.1 Semester scheme

Each under graduate programme is of 4 academic years (8 semesters) with the academic year being divided into two semesters of **23** weeks (≥ 100 instructional days) each, each semester shall have - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and curriculum/ course structure as suggested by PCI are followed.

3.2.2 Credit courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (lecture periods: tutorial periods: practical periods: credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses.

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- One credit for two hours/ week/ semester for laboratory/ practical (P) courses or tutorials (T).

Courses like Environmental Sciences, Human Values and Professional Ethics, Gender Sensitization Laboratory and student activities like NCC/NSO and NSS are identified as mandatory courses. These courses will not carry any credits.

3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in Pharmacy (B.Pharm. degree programmes) are broadly classified as follows. The university has followed almost all the guidelines issued by PCI/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1	Foundation Courses (FnC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects.
2		PS - Pharmaceutical Sciences	Includes fundamental Pharmacy Subjects.
3		HS – Humanities and Social sciences	Includes subjects related to humanities, social sciences and management.
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline.
5	Elective Courses (E/C)	OE – Open Electives	Includes elective subjects related to inter-disciplinary areas of Pharmacy or other than Pharmacy
6	Core Courses	Project Work	B.Pharm. project or UG project or UG major project
7		Seminar	Seminar/ Colloquium based on core contents related to parent discipline.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)

4.0 Course registration

- 4.1 A 'faculty advisor or counselor' shall be assigned to a group of 15 students, who will advise student about the under graduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The academic section of the college invites 'registration forms' from students before the beginning of the semester through 'on-line registration', ensuring 'date and time stamping'. The on-line registration requests for any 'current semester' shall be **completed before the commencement of semester end examinations of the 'preceding semester'**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the '**written approval**' from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor/ counselor and the student.
- 4.5 If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** registration for the subject(s) / course(s) under a given/ specified course group/ category as listed in

w. e. f. AY 2016-17


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. PHARMACY COURSE STRUCTURE (2016-17)

I YEAR II SEMESTER

S. No	Course Code	Subject	L	T	P	Credits
1	BS201	Pharmaceutical Inorganic Chemistry	3	1	0	3
2	BS202	Pharmaceutical Organic Chemistry – II	4	1	0	4
3	PS203	Physical Pharmacy - I	4	1	0	4
4	BS204	Statistical Methods and Computer Applications	3	1	0	3
5	PS205	Anatomy, Physiology and Health Education – II	4	1	0	4
6	BS206	Pharmaceutical Inorganic Chemistry Lab	0	0	3	2
7	BS207	Statistical Methods and Computer applications Lab	0	0	3	2
8	PS208	Physical Pharmacy – I Lab	0	0	3	2
9	*MC209	NCC/NSO	0	0	0	0
		Total Credits	18	5	9	24

*MC – Mandatory Course


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With effect from 02/08/2016

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B. PHARMACY COURSE STRUCTURE (2016-17)

I YEAR I SEMESTER

S. No	Course Code	Subject	L	T	P	Credits
1	BS101/ BS102	Remedial Mathematics / Remedial Biology - I	4/ 2	1/ 1	0	4/ 2
2	PS103	Dispensing and General Pharmacy	4	1	0	4
3	PS104	Anatomy, Physiology and Health Education – I	3	1	0	3
4	BS105	Pharmaceutical Organic Chemistry – I	4	1	0	4
5	HS106	Professional Communication in English	3	0	0	3
6	PS107	Dispensing and General Pharmacy Lab	0	0	3	2
7	PS108	Anatomy, Physiology and Health Education – I Lab	0	0	3	2
8	BS109	Pharmaceutical Organic Chemistry – I Lab	0	0	3	2
9	BS110	Remedial Biology - I Lab	0	0	3	2
10	*MC111	NSS	0	0	0	0
		Total Credits	18/16	4/4	12	24/24

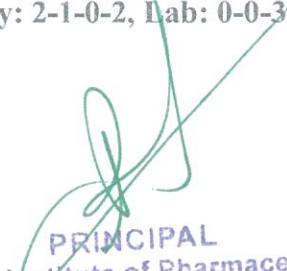
I YEAR II SEMESTER

S. No	Course Code	Subject	L	T	P	Credits
1	BS201	Pharmaceutical Inorganic Chemistry	3	1	0	3
2	BS202	Pharmaceutical Organic Chemistry – II	4	1	0	4
3	PS203	Physical Pharmacy - I	4	1	0	4
4	BS204	Statistical Methods and Computer Applications	3	1	0	3
5	PS205	Anatomy, Physiology and Health Education – II	4	1	0	4
6	BS206	Pharmaceutical Inorganic Chemistry Lab	0	0	3	2
7	BS207	Statistical Methods and Computer applications Lab	0	0	3	2
8	PS208	Physical Pharmacy – I Lab	0	0	3	2
9	*MC209	Physical Education	0	0	0	0
		Total Credits	18	5	9	24

Note: For Bi.P.C Students to choose Remedial Mathematics (Theory).

For M.P.C Students to choose Remedial Biology (Theory: 2-1-0-2, Lab: 0-0-3-2)

***Mandatory Course**


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B. PHARMACY COURSE STRUCTURE (2016-17)

II YEAR I SEMESTER

S. No	Course Code	Subject	L	T	P	Credits
1	PS301	Pharmaceutical Organic Chemistry – III	4	1	0	4
2	PS302	Pharmaceutical Unit Operations – I	4	1	0	4
3	PS303	Hospital and Community Pharmacy	3	1	0	3
4	PS304	Pharmacognosy – I	3	1	0	3
5	PS305	Pharmaceutical Analysis – I	4	1	0	4
6	PS306	Pharmaceutical Organic Chemistry – III Lab	0	0	3	2
7	PS307	Pharmacognosy – I Lab	0	0	3	2
8	PS308	Pharmaceutical Analysis – I Lab	0	0	3	2
9	*MC309	Environmental Science and Technology	3	0	0	0
		Total	21	5	9	24

II YEAR II SEMESTER

S. No	Course Code	Subject	L	T	P	Credits
1	PS401	Pharmaceutical Unit Operations - II	4	1	0	4
2	BS402	Biochemistry	3	1	0	3
3	PS403	Pharmaceutical Jurisprudence	4	1	0	4
4	PS404	Physical Pharmacy – II	4	1	0	4
5	OE	HS405: Intellectual Property Rights PS405: Herbal Drugs Technology BS405: Green Chemistry	3	0	0	3
6	PS406	Pharmaceutical Unit Operations – II Lab	0	0	3	2
7	BS407	Biochemistry Lab	0	0	3	2
8	PS408	Physical Pharmacy – II Lab	0	0	3	2
9	*MC409	Gender Sensitization Lab	0	0	3	0
		Total	18	4	12	24

*MC – Mandatory Course

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.PHARM. III YEAR COURSE STRUCTURE & SYLLABUS (R16)

Applicable From 2016-17 Admitted Batch

III YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS501	Pharmaceutical Microbiology	4	1	0	4
2	PS502	Pharmaceutical Technology - I	4	1	0	4
3	PS503	Pharmacology – I	4	1	0	4
4	PS504	Pharmacognosy – II	3	1	0	3
5		Open Elective - II	3	0	0	3
	PS505	Drug Regulatory Affairs				
	PS506	Active Pharmaceutical Ingredient Process Development				
	MS507	Entrepreneurship and Small Business Enterprises				
6	PS508	Pharmaceutical Microbiology Lab	0	0	3	2
7	PS509	Pharmaceutical Technology - I Lab	0	0	3	2
8	PS510	Pharmacology – I Lab	0	0	3	2
9	*MC500	Professional Ethics	3	0	0	0
		Total	21	4	9	24


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B.PHARM. III YEAR COURSE STRUCTURE & SYLLABUS (R16)


Applicable From 2016-17 Admitted Batch

III YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS501	Pharmaceutical Microbiology	4	1	0	4
2	PS502	Pharmaceutical Technology - I	4	1	0	4
3	PS503	Pharmacology – I	4	1	0	4
4	PS504	Pharmacognosy – II	3	1	0	3
5		Open Elective - II	3	0	0	3
	PS505	Drug Regulatory Affairs				
	PS506	Active Pharmaceutical Ingredient Process Development				
	MS507	Entrepreneurship and Small Business Enterprises				
6	PS508	Pharmaceutical Microbiology Lab	0	0	3	2
7	PS509	Pharmaceutical Technology - I Lab	0	0	3	2
8	PS510	Pharmacology – I Lab	0	0	3	2
9	*MC500	Professional Ethics	3	0	0	0
		Total	21	4	9	24

III YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS601	Medicinal Chemistry - I	3	1	0	3
2	PS602	Pharmaceutical Technology – II	3	1	0	3
3	PS603	Pharmacology – II	4	1	0	4
4	PS604	Chemistry of Natural Products	3	1	0	3
5		Open Elective - III	3	0	0	3
	PS605	Generic Product Development				
	PS606	Drug Design and Discovery				
	PS607	Screening Methods in Pharmacology				
6	PS608	Medicinal Chemistry - I Lab	0	0	3	2
7	PS609	Pharmaceutical Technology – II Lab	0	0	3	2
8	PS610	Pharmacology – II Lab	0	0	3	2
9	HS611	Advanced English Communication skills Lab	0	0	3	2
		Total	16	04	12	24


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B.PHARM. IV YEAR COURSE STRUCTURE & SYLLABUS (R16)


Applicable From 2016-17 Admitted Batch

IV Year I Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS701	Pharmaceutical Analysis – II	4	1	0	4
2	PS702	Biopharmaceutics and Pharmacokinetics	4	1	0	4
3	PS703	Pharmacology - III	3	1	0	3
4	PS704	Medicinal Chemistry – II	4	1	0	4
5	HS705	Pharmacy Administration	3	1	0	3
6	PS706	Pharmaceutical Analysis – II Lab	0	0	3	2
7	PS707	Biopharmaceutics and Pharmacokinetics Lab	0	0	3	2
8	PS708	Medicinal Chemistry – II Lab	0	0	3	2
9	PS709	Seminar and Industrial visit	0	0	2	1
Total			18	5	11	25

IV Year II Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS801	Novel Drug Delivery Systems	3	1	0	3
2	PS802	Clinical Pharmacy	3	1	0	3
3	PS803	Pharmaceutical Biotechnology	3	1	0	3
4	PS804	Pharmacognosy – III	3	1	0	3
5	PS805	Open Elective - III 1. Nano Technology 2. Pharmacoepidemiology, Pharmacoeconomics and pharmacovigilance 3. Medicinal Plant Biotechnology	3	1	0	3
	PS806					
	PS807					
6	PS808	Novel Drug Delivery Systems and Regulatory Affairs Lab	0	0	3	2
7	PS809	Pharmacognosy – III Lab	0	0	3	2
8	PS810	Major Project	0	0	10	5
Total			15	5	16	24


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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 [#] / Remedial Mathematics [§]	2 [#] /3 [§]	-	-	2 [#] /3 [§]
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
Total			16/17	4	20	26 [#] /26 [§]

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

[§]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	-	-	-	-
Total			16	4	14	23

*MC - Mandatory Course - Satisfactory/ Unsatisfactory.

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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
		Total Credits	12	04	17	24

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
		Total Credits	16	05	16	28

*MC-Satisfactory/Dissatisfactory


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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	PS505 PS506 PS507 PS508	Open Elective - I I. Generic Product Development II. Green Chemistry III. Cell and Molecular Biology IV. Cosmetic science	3	1	0	4
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
Total			16	05	12	26

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	PS605 PS606 PS607 PS608	Open Elective - II I. Pharmaceutical Quality Assurance II. Pharmaceutical Biotechnology III. Bioinformatics IV. Screening Methods in Pharmacology	3	1	0	4
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
Total			16	05	12	26


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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	PS705 PS706 PS707 PS708	Open Elective - III i. Pharmaceutical Marketing ii. Pharmaceutical Regulatory Science iii. Pharmacovigilance iv. Quality Control and Standardization of Herbals	3	1	0	4
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
		Total	15	5	10	25

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	PS804 PS805 PS806 PS807	Open Elective - IV i. Computer Aided Drug Design ii. Nano Technology iii. Experimental Pharmacology iv. Advanced Instrumentation Techniques	3	1	0	4
5	PS808	Project Work	0	0	6	3
		Total	12	3	6	18


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B. PHARMACY COURSE STRUCTURE AND I & II YEARS SYLLABUS

Effective from Academic Year 2022-23 Admitted Batch

I Year I semester

S. No	Course Code	Subject	L	T	P	Credits
1	PS101	Human Anatomy and Physiology I	3	1	-	4
2	PS102	Pharmaceutical Analysis I	3	1	-	4
3	PS103	Pharmaceutics	3	1	-	4
4	PS104	Pharmaceutical Inorganic Chemistry	3	1	-	4
5	HS105	Communication skills	2	-	-	2
6	BS106/BS107	Remedial Biology [#] / Remedial Mathematics [§]	2 [#] /3 [§]	-	-	2 [#] /3 [§]
7	PS108	Human Anatomy and Physiology-I lab	-	-	4	2
8	PS109	Pharmaceutical Analysis I lab	-	-	4	2
9	PS110	Pharmaceutics lab	-	-	4	2
10	PS111	Pharmaceutical Inorganic Chemistry lab	-	-	4	2
11	HS112	Communication skills lab	-	-	2	1
12	BS113	Remedial Biology lab	-	-	2	1
		Total	16/17	4	20	30[#]/30

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

[§]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	-	4
2	PS202	Pharmaceutical Organic Chemistry-I	3	1	-	4
3	BS203	Biochemistry	3	1	-	4
4	BS204	Pathophysiology	3	1	-	4
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	-	-	-	-
		Total	15	4	14	26

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
10	*MC300	NSO	0	0	0	0
		Total Credits	12	04	16	24

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	Physical Pharmaceutics-II	3	1	0	4
3	PS403	Pharmacology-I	3	1	0	4
4	PC404	Pharmacognosy and Phytochemistry-I	3	1	0	4
5	PS405	Pharmaceutical Jurisprudence	3	1	0	4
6	PC406	Physical Pharmaceutics-II Lab	0	0	4	2
7	PS407	Pharmacology-I Lab	0	0	4	2
8	PC408	Pharmacognosy and Phytochemistry-I Lab	0	0	4	2
9	*MC400	Gender Sensitization Lab	1	0	0	0
Total Credits			16	05	12	26

III Year I Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS501	Medicinal Chemistry I	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	PS505	Open Elective - I	3	1	0	4
	PS506	I. Generic Product Development				
	PS507	II. Green Chemistry				
	PS508	III. Cell and Molecular Biology				
		IV. Cosmetic science				
6	PC509	Medicinal Chemistry I Lab	0	0	4	2
7	PS510	Industrial Pharmacy - I lab	0	0	4	2
8	PS511	Pharmacology - II lab	0	0	4	2
9	PS512	Pharmacognosy and Phytochemistry - II lab	0	0	4	2
10	*MC500	Environmental sciences	1	0	0	0
Total			16	05	16	28

III Year II Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1	PS601	Medicinal Chemistry - II	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	PS605	Open Elective - II	3	1	0	4
	PS606	I. Pharmaceutical Quality Assurance				
	PS607	II. Pharmaceutical Biotechnology				
	PS608	III. Bioinformatics				
		IV. Screening Methods in Pharmacology				
6	PS609	Medicinal chemistry - II 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	PS612	Biopharmaceutics and Pharmacokinetics Lab	0	0	4	2
10	*MC600	Human Values and Professional Ethics	1	0	0	0
Total			16	05	16	28

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	Medicinal Chemistry - III	3	1	0	4
5	PS705	Open Elective - III	3	1	0	4
		i. Pharmaceutical Marketing				

	PS706 PS707 PS708	ii. Pharmaceutical Regulatory Science iii. Pharmacovigilance 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	4	2
		Total	15	5	12	26

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	Novel Drug Delivery System	3	1	0	4
4		Open Elective - IV	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	Novel Drug Delivery System Lab	0	0	4	2
6		Project Work	0	0	6	3
		Total	12	4	10	21

*MC - Mandatory Course - Satisfactory/ Unsatisfactory.


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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.PHARMACY (PHARMACEUTICS / PHARMACEUTICAL TECHNOLOGY)

R22 COURSE STRUCTURE AND SYLLABUS

Effective from Academic Year 2022-23 Admitted Batch

I YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-I	Modern Pharmaceutics-I	3	1	0	4
Professional Core-II	Applied Biopharmaceutics and Pharmacokinetics	3	1	0	4
Professional Elective-I	1. Advanced Physical Pharmaceutics 2. Drug Regulatory affairs 3. Total Quality Management	3	1	0	4
Professional Elective-II	1. Cosmetics and Cosmeceuticals 2. Pharmaceutical Validation 3. Stability of Drugs and Dosage Forms	3	1	0	4
	Research methodology and IPR	2	0	0	2
Laboratory- I	Modern Pharmaceutics – I Lab	0	0	6	3
Laboratory- II	Applied Biopharmaceutics and Pharmacokinetics Lab	0	0	6	3
Audit - I	Audit Course- I	2	0	0	0
	Seminar & Assignment	0	0	4	2
	TOTAL	16	4	16	26

I YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-III	Modern Pharmaceutics - II	3	1	0	4
Professional Core-IV	Advanced Drug Delivery Systems	3	1	0	4
Professional Elective-III	1. Industrial Pharmacy 2. Herbal Cosmetics 3. Pharmaceutical Management	3	1	0	4
Professional Elective-IV	1. Nano based Drug Delivery Systems 2. Nutraceuticals 3. Clinical Research and Pharmacovigilance	3	1	0	4
Laboratory- III	Modern Pharmaceutics – II Lab	0	0	6	3
Laboratory- IV	Advanced Drug Delivery System Lab	0	0	6	3
	Mini Project	2	0	0	2
Audit - II	Audit Course- II	2	0	0	0
	Seminar & Assignment	0	0	4	2
	TOTAL	16	4	16	26

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	1	0	4
Open Elective	Open Elective	3	1	0	4
	Comprehensive Viva voce	0	0	8	4
	Dissertation Work Review – II	0	0	24	12
	TOTAL	6	2	32	24

II YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review - III	0	0	24	12
Dissertation	Dissertation Viva-Voce	0	0	20	10
	TOTAL	0	0	44	22

***For Dissertation Work Review - I, Please refer R22 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

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.PHARMACY (PHARMACEUTICAL ANALYSIS)

R22 COURSE STRUCTURE AND SYLLABUS

Effective from Academic Year 2022-23 Admitted Batch

I YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-I	Modern Pharmaceutical Analytical Techniques	3	1	0	4
Professional Core-II	Pharmaceutical Food Analysis	3	1	0	4
Professional Elective-I	1. Advanced Pharmaceutical Analysis ✓ 2. Drug Regulatory Affairs 3. Phytochemistry	3	1	0	4
Professional Elective-II	1. Pharmaceutical Validation 2. Cosmetics and Cosmeceuticals ✓ 3. Stability of Drugs and Dosage forms	3	1	0	4
	Research Methodology & IPR	2	0	0	2
Laboratory-I	Modern Pharmaceutical Analytical Techniques lab	0	0	6	3
Laboratory-II	Pharmaceutical food Analysis Lab	0	0	6	3
Audit - II	Audit course- I	2	0	0	0
	Seminar & Assignment	0	0	4	2
	TOTAL	16	4	16	26

I YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-III	Advanced Instrumental Analysis - I	3	1	0	4
Professional Core-IV	Pharmaceutical Quality Control & Quality Assurance	3	1	0	4
Professional Elective-III	1. Modern Bio-analytical Techniques 2. Herbal Cosmetics ✓ 3. Pharmacoepidemiology & Pharmacoeconomics	3	1	0	4
Professional Elective-IV	1. Advanced Instrumental Analysis - II ✓ 2. Nutraceuticals 3. Clinical Research and Pharmacovigilance	3	1	0	4
Laboratory- III	Advanced Instrumental Analysis I Lab	0	0	6	3
Laboratory- IV	Pharmaceutical Quality Control & Quality Assurance Lab	0	0	6	3
	Mini project	2	0	0	2
Audit - II	Audit Course - II	2	0	0	0
	Seminar & Assignment	0	0	4	2
	Total	16	4	16	26

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	1	0	4
Open Elective	Open Elective	3	1	0	4
Dissertation	Comprehensive Viva Voce	0	0	8	4
	Dissertation Work Review - II	0	0	24	12
	Total	6	2	32	24

II YEAR II SEMESTER

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review - III	0	0	24	12
Dissertation	Dissertation Viva-Voce	0	0	20	10
	Total	0	0	44	22

***For Dissertation Work Review - I, Please refer R22 Academic Regulations.**

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4. Value Education
5. Constitution of India
6. Pedagogy Studies ✓
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills

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JAWAHARLALNEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M. PHARMACY (PHARMACOLOGY)

R22 COURSE STRUCTURE AND SYLLABUS

Effective from Academic Year 2022 – 23 Admitted Batch

I YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-I	Advanced Pharmacology-I	3	1	0	4
Professional Core-II	Clinical Pharmacology and Pharmacotherapeutics	3	1	0	4
Professional Elective-I	1. Pharmacokinetics and Drug Metabolism 2. Clinical Research and Pharmacovigilance 3. Principles of Drug Discovery	3	1	0	4
Professional Elective-II	1. Animal Cell Cultures and Applications 2. Molecular Biology 3. Principles of Toxicology	3	1	0	4
	Research Methodology and IPR	2	0	0	2
Laboratory-I	Advanced Pharmacology –I Lab	0	0	6	3
Laboratory-II	Clinical Pharmacology and Pharmacotherapeutics Lab	0	0	6	3
Audit-I	Audit Course-I	2	0	0	0
	Seminar & Assignment	0	0	4	2
	TOTAL	16	4	16	26

I YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Professional Core-III	Advanced Pharmacology - II	3	1	0	4
Professional Core-IV	Pharmacological Screening Methods and Toxicology	3	1	0	4
Professional Elective-III	1. Quality Use of Medicines 2. Pharmacoepidemiology and Pharmacoeconomics 3. Advanced Drug Delivery Systems	3	1	0	4
Professional Elective-IV	1. Pharmaceutical Management 2. Nutraceuticals 3. Pharmacokinetic and Therapeutic Drug Monitoring	3	1	0	4
Laboratory-III	Advanced Pharmacology-II Lab	0	0	6	3
Laboratory-IV	Pharmacological Screening Methods and Toxicology lab	0	0	6	3
	Mini project	2	0	0	2
Audit-II	Audit Course- II	2	0	0	0
	Seminar & Assignment	0	0	4	2
	TOTAL	16	4	16	26

II YEAR I Semester

Course Code	Course Title	L	T	P	Credits
Professional Elective-V	1. Biostatistics 2. Hospital and Community Pharmacy 3. Medicinal Plant Biotechnology	3	1	0	4
Open Elective	Open Elective	3	1	0	4
	Comprehensive Viva Voce	0	0	8	4
	Dissertation Work Review-II	0	0	24	12
	TOTAL	6	2	32	24

II YEAR II Semester

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review - III	0	0	24	12
Dissertation	Dissertation Viva-Voce	0	0	20	10
	TOTAL	0	0	44	22

***For Dissertation Work Review - I, Please refer R22 Academic Regulations.**

Audit Courses I & II:

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technological Learning
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8. Personality Development through Life Enlightenment Skills

