

VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN

SYLLABUS | R10 B.PHARMACY



ACADEMIC REGULATIONS. COURSE STRUCTURE AND DETAILED SYLLABUS



B-PHARMACY

For

B.PHARMACY FOUR YEAR DEGREE COURSE

(Applicable for batches admitted from 2010-2011)







JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA - 533 003, ANDHRA PRADESH, INDIA

Academic Regulations 2010 for BPHARM (Regular)

(Effective for the students admitted in to I year from the Academic Year 2010-2011 and onwards)

1. Award of B.Pharm Degree

A student will be declared eligible for the award of the B.Pharm Degree if he fulfils the following academic regulations:

- 1.1 Pursued a course of study for not less than four academic years and not more than eight academic years.
- 1.2 For the award of the degree, candidate has to register for all the 200 credits and secure all the 200 credits.
- 2. Students, who fail to fulfil all the academic requirements for the award of the degree within eight academic years from the year of their admission, shall forfeit their seat in B. Pharm course.
- 3. Distribution and Weightage of Marks
- i. The performance of a student in each semester / I year shall be evaluated subject wise with a maximum of 100 marks for theory and 75 marks for practical subject. In addition, Seminar and Project Work shall be evaluated for 50 and 100 marks respectively.
- ii. For theory subjects the distribution shall be 25 marks for Internal Evaluation and 75 marks for the End-Examination. Out of 25 internal Marks-15 marks assigned for subjective exam and 10 marks for objective exam.
- iii. For theory subjects, during the semester there shall be 2 midterm examinations. Each mid term examination consists of objective paper for 10 marks and subjective paper for 15 marks with a duration of 2 hour 20 minutes (20 minutes for objective and 120 minutes for subjective paper). Objective paper set for 20 bits of multiple choice questions, fill-in the blanks, matching type questions for 10 marks.

Subjective paper shall contains 4 questions of which student has to simply a questions. First mid term examination shall be conducted to 4 units of syllabus and second mid term examination shall be entkepaduorducted for 5 -8 units. The total marks secured by the student in vijayawa each mid term examination for 25 marks is considered and the better of the two mid term examinations shall be taken as the final marks secured

each candidate.

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However for first year, there shall be 3 mid term examinations as in the above pattern and the average marks of the best two examinations secured in each subject shall be considered as final marks for sessionals.

- iv. For practical subjects there shall be a continuous evaluation during the semester for 25 sessional marks and 50 end examination marks. Out of the 25 marks for internal, day-to-day work in the laboratory shall be evaluated for 15 marks and internal examination for practical shall be evaluated for 10 marks conducted by the concerned laboratory teacher. The end examination shall be conducted with external examiner and laboratory teacher. The external examiner shall be appointed from the cluster of colleges as decided by the University examination branch.
- v. There shall be a seminar presentation in IV year II Semester. For the seminar, the student shall collect the information on a specialized topic and prepare a technical report, showing his understanding over the topic, and submit to the department, which shall be evaluated by the Departmental committee consisting of Head of the department, seminar supervisor and a senior faculty member. The seminar report shall be evaluated for 50 marks. There shall be no external examination for seminar.
- vi. Out of a total of 100 marks for the project work, 25 marks shall be for Internal Evaluation and 75 marks for the End Semester Examination. The End Semester Examination (viva-voce) shall be conducted by the committee. The committee consists of an external examiner, head of the department, the supervisor of the project and a senior faculty member of the department. Seminar and project work shall be on the same topic. The evaluation of project work shall be conducted at the end of the IV year. The Internal Evaluation shall be on the basis of two seminars given by each student on the topic of his project.
- Laboratory marks and the sessional marks awarded by the College are not final. They are subject to scrutiny and scaling by the University wherever necessary. In such cases, the sessional and laboratory marks awarded by the College will be referred to a Committee. The Committee are scaling factor and the marks will be scaled as per the scaling factor. The recommendations of the Committee are final and scaling. The laboratory records and internal test papers half be preserved in the respective institutions as per the physical behalf be when they ask for the Committees of the Committee are final and when they ask for the Committees of the Committee are final and when they ask for the Committees of the Committees of the Committee are final and when they ask for the Committees of the Committees of the Committees of the Committees and the committees of the Committees of the Committees of the Committees and the committees of the Committees of the Committees are final and the committees of the C

Viii. There shall be a Comprehensive Viva-Voce in IV year II semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of (i) Head of the Department (ii) two Senior Faculty members of the Department. The Comprehensive Viva-Voce is aimed to assess the students' understanding in various subjects he / she studied during the B.Pharm course of study. The Comprehensive Viva-Voce is valued for 100 marks by the Committee. There are no internal marks for the Comprehensive viva-voce.

4. Attendance:

- i. A student shall be eligible to appear for University examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.
- ii. Shortage of Attendance below 65% in aggregate shall in NO case be condoned.
- iii. Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester or I year may be granted by the College Academic Committee.
- iv. A student will not be promoted to the next semester unless he satisfies the attendance requirement of the present semester / I year, as applicable. They may seek re-admission for that semester / I year when offered next.
- v. Students whose shortage of attendance is not condoned in any semester / I year are not eligible to take their end examination of that class and their registration shall stand cancelled.
- vi. A stipulated fee shall be payable towards condonation of shortage of attendance.

5. Minimum Academic Requirements:

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The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no. 4.

A student shall be deemed to have satisfied the minimum academic requirements and earned the credits allotted to each theory or practical soldect of project if he secures not less than 35% of marks in the end examination and a minimum of 40% of marks in the sum total of the intelligible valuation and end examination taken together.

Student shall be promoted from II to III year only if he FINNEPADU VIJAYAWADA 521 101

academic requirement of total 50 credits from regular and supplementary examinations of I year and II year examinations, irrespective of whether the candidate takes the examination or not.

- iii. A student shall be promoted from third year to fourth year only if he fulfills the academic requirements of total 78 credits from regular and supplementary examinations of I Year, II Year and III Year examinations, irrespective of whether the candidate takes the examinations or not.
- iv. A student shall register and put up minimum attendance in all 200 credits and earn all the 200 credits. Marks obtained in all the 200 credits shall be considered for the calculation of percentage of marks.
- v. Students who fail to earn 200 credits as indicated in the course structure within eight academic years from the year of their admission shall forfeit their seat in B. Pharm course and their admission shall stand cancelled.

6. Course pattern:

- The entire course of study is of four academic years. The first year shall be on yearly pattern and the second, third and fourth years on semester pattern.
- ii. A student eligible to appear for the end examination in a subject, but absent at it or has failed in the end examination may appear for that subject at the supplementary examination.
- When a student is detained due to lack of credits / shortage of attendance he may be re-admitted when the semester / year is offered after fulfilment of academic regulations, whereas the academic regulations hold good with the regulations he was first admitted.

Award of Class:

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B. Pharm Degree he shall be placed in one of the following four classes:

COL - A - I I I		PANCIPAL	
Class Awarded	% of marks to be secured	VIJAYA INSTITUTE	
First Class with District	70% and above	MACEUTICAL SCIENCES FOR WOME	
Second Class ENIKEPADU	Below 70% but not less than 60% Below 60% but not less than 50% Below 50% but not less than 40%	aggregate marks secured in all the	
Pass Class	Below 50% but not less than 40%	200 Credits.	

(The marks in internal evaluation and end examination shall be shown separately in the marks memorandum)

8. Minimum Instruction Days:

The minimum instruction for each semester / I year shall be 90/180 clear instruction days.

- 10. There shall be no branch transfers after the completion of admission process.
- 11. There shall be no place transfer within the Constituent Colleges and Units of Jawaharlal Nehru Technological University Hyderabad.

General:

- 12. Where the words "he", "him", "his", occur in the regulations, they include "she", "her", "hers".
- 13. The academic regulation should be read as a whole for the purpose of any interpretation.
- 14. In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- 15. The University may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the University.

Academic Regulations for B. Pharm (Lateral Entry Scheme)

(Effective for getting admitted into II year from the Academic Year 2009-2010 onwards)

- 1. The Students have to acquire 156 credits from II to IV year of B. Pharm Program (regular) for the award of the degree.
- 2. Students, who fail to fulfil the requirement for the award of the degree in 6 Consecutive academic years

 from the year of admission, shall forfeit their seat.
- 3. The same attendance regularies are to be adopted as that of B. Pharm (Regular).
- 4. Promotion Rule:
- up the minimum required affendance in II year. ENKEPADU VIJAYAWADA 52' 108

VIJAYA INSTITUTE

(b.) A student shall be promoted from third year to fourth only if he fulfills the academic requirements of 56 credits from the II Year and III Year examinations, whether the candidate takes the examinations or not.

5. Award of Class:

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B.Pharm Degree he shall be placed in one of the following four classes:

First Class with Distinction	70% and above	From the aggregate
First Class	Below 70% but not less than 60%	marks secured in 156 Credits.
Second C.	Bel w 60% but not less than 50%	(i.e. II year to IV
Pass Class	Below 50% but not less than 40%	year)

(The marks in internal evaluation and end examination shall be shown separately in the marks memorandum)

6. All other regulations as applicable for B.Pharm Four-year degree course (Regular) will hold good for B.Pharm (Lateral Entry Scheme)





JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA B.PHARMACY COURSESTRUCTURE

IYEAR

ISEMESTER

S. No.	Subject	T	P	Credits
1	English-I [B1101]	3	-	2
2	Mathematics-I/Biology-I [BII02] [B	103	-	2.
3	Anatomy, Physiology & Health education-I	. 3	-	2
4	Pharm. Inorganic chemistry-I [B1105]	3	-	2
5	Pharm. Organic Chemistry-I [81106]	3	-	. 2
6	Physical Pharmacy-I (B1107)	. 3	-	2
7	Computer Programming	3	-	2
8	English Communications Skills Lab-1	-	3	2
9	Biology Lab	-	- 3	2
10	Pharm. Inorganic Chemistry-I Lab	-	3	2
11	Computer Lab	-	3	2
	Total			22.

IYEAR

IISEMESTER

S. No.	Subject	T	P	Credits
1	English-II Black	3	-	2
2	Mathematics-II/Biology-II 3120160	3 3	-	2
3	Anatomy, Physiology & Health education-II	3	-	2
4	Pharm. Inorganic chemistry-II	3	-	2
5	Pharm. Organic chemistry-II 61206	3	-	2
6	Physical Pharmacy-II R1207	3	-	2
7	Environmental studies. G1208	3.	-	2
8	English communication skills Lab-II 3/200	,	3	2
9	Anatomy, Physiology & Health education-II Lab		3	2
10	Pharm. Organic chemistry-II Lab	- /	3	att20
11	Physical Pharmacy Labreradu 21112	LIAV	RINC	STITUT
	Total Pharmacy TLAREPADA. STILL PHAR	MACEUT	CAL SCI	NCESZOR W

II YEAR

ISEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical unit operation-I			
	(Pharmaceutical Engg.,)	4	-	4
2	Pharmacognosy-1	4	-	4
3	Physical Pharmaceutics	4		4
4	Advanced Pharmaceutical Organic Chemistry	4.	-	4
5	Health Education & Pathophysiology	4	_	4
6	Pharmacognosy-1 Lab	-	3	2
7	Physical Pharmaceutics Lab	- 1	3.	2
8	Advanced Pharmaceutical Organic Chemistry Lab	- 1	3	2.
9 /	Health education & Pathophysiology Lab	- L	3	2
10	English Communication Practice-1	-	2	1
	Total			29

IIYEAR

IISEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical unit operation-II	4	-	- 4
2	Pharmaceutical Analysis-I	4	3	4
3	Pharmacognosy -II	4	-	4
4	Dispensing & Hospital Pharmacy	4		4
5	Biostatistics	4	-	4
6	Pharmaceutical unit operation-II Lab		3	2
7	Pharmaceutical Analysis-I Lab	- '	. 3	2
8	Pharmacognosy -II Lab		3	2
9	Dispensing & Hospital Pharmacy	CE	3	2 1
10	English Communication Practice	es, fo	.2	VILAY
A Marie	Total	100		PHARIZINGEUT

MYEAR

ISEMESTER

S. No.	Subject	T	P	Credits
1	Pharm. Biochemistry	4	•	4
2	Pharm. Microbiology	4	ŀ	4
3	Chemistry of Natural Drugs	4		4
4	Pharm. Technology-I	4	-	4.
5	Pharmacology-I	4		` 4
6	Pharm. Biochemistry Lab	- 1	3	2
7	Pharm. Microbiology Lab		3	2
8	Chemistry of Natural Drugs Lab	-	3	2 *
9	Pharma. Technology-I Lab	-	3	2
10	Pharmacology-1 Lab		3	2
	Total			30

III YEAR

IISEMESTER

S. No.	Subject	T	P	Credits
1	Medicinal Chemistry-I 133.201	4		4
2	Pharm. Technology-II 83262	4	-	4
3	Biopharmaceutics & Pharmacokinetics	4		3
4	Clinical Pharmacy B32d.	4		3
5	Pharmaceutical Biotechnology 832c5	4	-	3
6	Medicinal Chemistry-I Lab		3	2
7.	Pharm. Technology-II Lab	-	- 3	2
8	Biopharmaceutics & Pharmacokinetics Lab		3	2
9	Pharmaceutical Biggally logy Lab \$2269	(M	3	2
9	Tutorials	RINC	PAZ	01
	Total ENIKEPADU S VIJAYAWADA.	A IN	STIT	n women

IV YEAR

ISEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical Analysis-II B (10)	4	-	4
2	Pharmacognosy-III Runz	4	-	3
3	Medicinal Chemistry-II Bulo 3	4.	-	3
4	Pharmaceutical Jurisprudence Ruco	4	_	3
5	Pharmaceutical Management Bulo 5	4		3
6	Pharmaceutical Analysis-II Lab Guios	-	3	2
7	Pharmacognosy-III Lab Rule 7	-	3	`2
8	Medicinal Chemistry-II Lab Run 8	-	3	2
9	Industrial Training & Seminar Rung	_	_	-
. 1	Total			22

IV YKAR

IISEMESTER

S. No.	Subject	. T	P	Credits
1	Medicinal Chemistry-III Buson	4		3
2 /	Pharmacology - II Shana	4	-	3
3	Controlled release & Novel Drug Delivery Systems &	204	-	3
4	Regulatory Affairs, IPR & Patents Busch	4	-	-
5	Medicinal Chemistry-III Lab Ruses	-	. 3	2
6	Pharmacology -II Lab Bush	_	3	2
7	Project work* Busu7	<u>~=</u> √.		6
8	Comprehensive viva Buso3	-	- <u>-</u>	2
9	Tutorial Burg9	3		
	Total		1	21

Suggested areas for project work

1. Pharmaceutical Technology & Industrial pharmacy; 2. Pharmacology & Clinical Pharmacy; 3. Pharmacognosy & Phytochemistry 4. Pharmaceutical & Medicinal Chemistry 5. Pharmaceutical Analysis & Quality Assurance 6... Pharmaceutical biotechnology 7. Pharmaceutical Management & Marketing

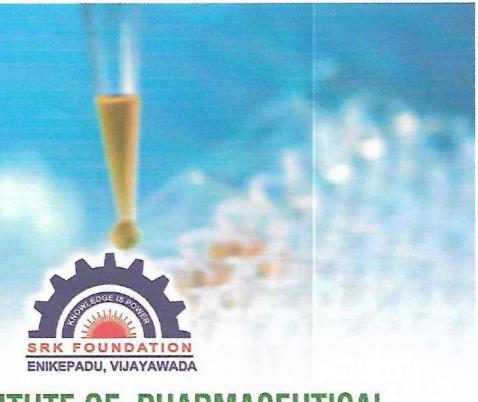
1. Award of B. Pharm Degree

A student will be declared eligible for ward of the B. Pharm Degree if fulfils the following academic regulations: ENIKEPADU

Pursued a course of study for not less than four academic years and

ENKEPADU VIJA Register for all the 200 credits and secure all the 200 credits. 1.2

not more than eight academic years



VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN

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SYLLABUS | R13 B.PHARMACY



ACADEMIC REGULATIONS COURSE STRUCTURE AND DETAILED SYLLABUS

B.PHARMACY

For

B.PHARMACY FOUR YEAR DEGREE COURSE

(Applicable for the batches admitted from 2013-14)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA - 533003, ANDHRA PRADESH, INDIA.





Academic Regulations (R13) for B. Pharm. (Regular)

Applicable for the students of B. Pharm. (Regular) from the Academic Year 2013-14 onwards

1. Award of B. Pharm. Degree:

A student will be declared eligible for the award of the B.Pharm Degree if he fulfils the following academic regulations:

- 1.1 Pursued a course of study for not less than four academic years and not more than eight academic years.
- 1.2 Register for all the 180 credits and secure all the 180 credits.

2. <u>Distribution and Weightage of Marks:</u>

- The performance of a student in each semester shall be evaluated subject – wise with a maximum of 100 marks for theory and 75 marks for practical subject. The project work shall be evaluated for 200 marks.
- For theory subjects the distribution shall be 30 marks for Internal Evaluation and 70 marks for the End-Examination.
- For theory subjects, during the semester there shall be 2 tests. The iii. weightage of Internal marks for 30 consists of Descriptive - 15, Assignment - 05 (Theory, Design, Analysis, Simulation, Algorithms, Drawing, etc. as the case may be) Objective -10 (Conducted at College level with 20 Multiple choice question with a weightage of ½ Mark each). The objective examination is for 20 minutes duration. The subjective examination is for 90 minutes duration conducted for 15 marks. Each subjective type test question paper shall contain 3 questions and all questions need to be answered. The Objective examination conducted for 10 marks and subjective examination conducted for 15 marks are to be added to the assignment marks of 5 for finalizing internal marks for 30. The best of the two tests will be taken for internal marks. As the syllabus is framed for 6 units, the 1st mid examination (both Objective and Subjective) is conducted in 1-3 units and second test in 4-6 units of each subject in a semester.
- Units for 70 marks. Part A contains a mandatory question (Brainstorming Thought provoking / case study) for 22 marks. Part B



has 6 questions (One from each Unit). The student has to answer 3 out of 6 questions in Part – B and carries a weightage of 16 marks each.

- v. For practical subjects there shall be continuous evaluation during the semester for 25 internal marks and 50 end examination marks. Of the 25 marks for internal, 15 marks shall be awarded as follows: day to day work 10 and Record-5, and 10 marks to be awarded by conducting an internal laboratory test. The end examination shall be conducted by the teacher concerned and external examiner.
- vi. For the subject having design and / or drawing, (such as Engineering Graphics, Engineering Drawing, Machine Drawing) and estimation, the distribution shall be 30 marks for internal evaluation (20 marks for day to day work, and 10 marks for internal tests) and 70 marks for end examination. There shall be two internal tests in a Semester and the better of the two shall be considered for the award of marks for internal tests.
- vii. For the seminar, the student shall collect the information on a specialized topic and prepare a technical report, showing his understanding over the topic, and submit to the department, which shall be evaluated by the Departmental committee consisting of Head of the department, seminar supervisor and a senior faculty member. The seminar report shall be evaluated for 50 marks. There shall be no external examination for seminar.
- viii. Out of a total of 200 marks for the project work, 60 marks shall be for Internal Evaluation and 140 marks for the End Semester Examination. The End Semester Examination (Viva Voce) shall be conducted by the committee. The committee consists of an external examiner, Head of the Department and Supervisor of the Project. The evaluation of project work shall be conducted at the end of the IV year. The Internal Evaluation shall be on the basis of two seminars given by each student on the topic of his project and evaluated by an internal committee.
- ix. Laboratory marks and the internal marks awarded by the College are not final. The marks are subject to scrutiny and scaling by the University wherever felt desirable the ternal and laboratory marks awarded by the College will be the committee. The Committee shall arrive at a scaling factor and the marks will be scaled as per the scaling factor.

The recommendations of the Committee are final and binding. The laboratory records and internal test papers shall be preserved in the respective departments as per the University norms and shall be produced to the Committees of the University as and when they ask for.

x. There shall be a Comprehensive Viva-Voce in IV year II semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of (i) Head of the Department (ii) two Senior Faculty members of the Department. The Comprehensive Viva-Voce is aimed to assess the students' understanding in various subjects he / she studied during the B.Pharm course of study. The Comprehensive Viva-Voce is valued for 100 marks by the Committee. There are no internal marks for the Comprehensive viva-voce.

3. Attendance Requirements:

- a. A student is eligible to write the University examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.
- b. Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester may be granted by the College Academic Committee
- c. Shortage of Attendance below 65% in aggregate shall not be condoned.
- d. A student who is short of attendance in semester may seek readmission into that semester when offered within 4 weeks from the date of the commencement of class work.
- e. Students whose shortage of attendance is not condoned in any semester are not eligible to write their end semester examination of that class.
- A stipulated fee shall be payable towards condonation of shortage of attendance.
- g. A student will be promoted to the next semester if he satisfies the attendance requirement of the present semester and (ii) credits.
- h. If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.

4. Minimum Academic Requirements:

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The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no. 3.

- i. A student shall be deemed to have satisfied the minimum academic requirements and earned the credits allotted to each theory or practical subject or project if he secures not less than 35% of marks in the end examination and a minimum of 40% of marks in the sum total of the internal evaluation and end examination taken together.
- ii. A student shall be promoted from first year to second year if he fulfills the minimum attendance requirement.
- iii. A student will be promoted from II year to III year if he fulfills the academic requirement of 40% of the credits up to II year I semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in II year II semester.
- iv. A student shall be promoted from III year to IV year only if he fulfils the academic requirements of 40% of the credits up to III year I semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in III year II semester.
- v. A student shall register and put up minimum attendance in all 180 credits and earn all the 180 credits. Marks obtained in all the 180 credits shall be considered for the calculation of percentage of marks.

5. Course pattern:

- 5.1 The entire course of study is for four academic years, all years on semester pattern.
- 5.2 A student, eligible to appear for the end semester examination in a subject, but absent from it or has failed in the end semester examination, may write the exam in that subject when conducted next.
- 5.3 When a student is detained for lack of credits/shortage of attendance, he may be re-admitted into the same semester / year in which he has been detained. However, the academic regulations under which he was first admitted, shall continues to be applicable to him.

6. Award of Class:

After a student has satisfied the requirements prescribed for the completion of the program wild in the limit of the award of B. Pharm Degree he shall be placed in one of the following four classes:

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and above w 70 but not less than 60%
v 70 but not less than 60%
70 out not less than 0070
w 60% but not less than 50%
v 50% but not less than 40%

(The marks in internal evaluation and end examination shall be shown separately in the marks memorandum)

7. Minimum Instruction Days:

The minimum instruction for each semester shall be 90 clear instruction days.

8. WITHHOLDING OF RESULTS

If the student has not paid the dues, if any, to the university or if any case of indiscipline is pending against him, the result of the student will be withheld and he will not be allowed into the next semester. His degree will be withheld in such cases.

9. TRANSITORY REGULATIONS

- 9.1 Discontinued or detained candidates are eligible for readmission as and when next offered.
- 9.2 After the revision of the regulations, the students of the previous batches will be given two chances for passing in their failed subjects, one supplementary and the other regular. If the students cannot clear the subjects in the given two chances, they shall be given equivalent subjects as per the revised regulations which they have to pass in order to obtain the required number of credits.
- 9.3 In case of transferred students from other Universities, the credits shall be transferred to JNTUK as per the academic regulations and course structure of the JNTUK.

10. General:

10.1 Where the words "he", "him", "his", occur in the regulations, they include "he" "hers". "hers".

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- 10.2 The academic regulation should be read as a whole for the purpose of any interpretation.
- 10.3 In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- 10.4 The University may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the University.
- 10.5 The students seeking transfer to colleges affiliated to JNTUK from various other Universities/Institutions have to pass the failed subjects which are equivalent to the subjects of JNTUK, and also pass the subjects of JNTUK on their own without the right to sessional marks which the candidates have not studied at the earlier Institution.



COURSE STRUCTURE

I Year - I SEMESTER

S. No.	Subject	T	P	Credits
1	English	3+1		3
2	Remedial Mathematics/ Remedial Biology	3/2 +		3/2
3	Human Anatomy & Physiology - I	3 + 1		3
4	Dispensing Pharmacy & Ethics	3 + 1		3
5	Pharmaceutical Organic Chemistry-I	3 + 1		3
6	English Communications Skills Lab		3	2
7	Remedial Biology Lab		2	0/1
8	Dispensing Pharmacy Lab		3	2
9	Pharmaceutical Organic Chemistry-I Lab		3	2
	Total Credits			21

I Year - II SEMESTER

S. No.	Subject	T	P	Credits
1	Human Anatomy & Physiology – II	3+1		3
2	Pharm. Inorganic Chemistry	3+1		3
3	Pharm. Organic Chemistry – II	3+1		3
4	Physical Pharmacy – I	3+1		3
5	Computer Applications & Biostatistics	3+1		3
6	Human Anatomy & Physiology Lab		3	2
7	Physical Pharmacy – I Lab		3	2
8	Computer Applications Lab		3	2
	Total Credits			21

II Year - I SEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical Unit Operations - I	3+1		3
2	Pharmacognosy - I	3+1		3
3	Physical Pharmacy - II	3+1		3
4	Pharmaceutical Microbiology	3+1		3
5	Environmental Science	3+1		3
6	Pharmacognosy – I Lab		3	2
7	Physical Pharmacon acenticator		3	2
8	Pharmaceutica Ph		3	2
	Total Enedits EPACU &			121

II Year - II SEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical Unit Operations -II	3 +1		3
2	Pharmaceutical Analysis - I	3 +1		3
3	Pharmacognosy -II	3 +1		3
4	Medicinal chemistry - I	3+1		3
5	Health Education & Pathophysiology	3 +1		3
6	Pharmaceutical Unit Operations Lab		3	2
7	Pharmaceutical Analysis – I Lab		3	2
8	Pharmacognosy -II Lab		3	2
	Total Credits			21

III Year - I SEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical Biochemistry	3+1	-	3
2	Medicinal Chemistry - II	3 +1	-	3
3	Pharmaceutical Technology - I	3 +1	-	3
4	Pharmacology -I	3+1	-	3
5	Pharmaceutical Management	3 +1	-	3
6	Pharmaceutical Biochemistry Lab	-	3	2
7	Pharmaceutical Technology-I Lab	-	3	2
8	Medicinal Chemistry Lab	-	3	2
	Total Credits			21

III Year - II SEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical Technology -II	3+1	-	4
2	Pharm. Biotechnology	3+1	-	4
3	Pharmacology - II	3 +1		4
4	Medicinal Chemistry - III	3+1	-	4
5	Regulatory Affairs, IPR & Patents	3 +1	-	2
6	Pharmaceutical Technology -II Lab	-	3	2
7	Pharmacology Lab	-	3	2
8	Pharm. Biotechnology Lab	-	3	2
	Total Credits			24



IV Year - I SEMESTER

S. No.	Subject	T	P	Credits
1	Pharmaceutical Analysis -II	3+1	-	4
2	Bio assays & Toxicology	3 +1	-	4
3	Chemistry of Natural Products	3 +1	-	4
4	Hospital & Community Pharmacy	3 +1	-	4
5	Pharmaceutical Jurisprudence	3+1	-	3
6	Pharmaceutical Analysis – II Lab	-	3	2
7	Bio assays& Toxicology Lab	-	3	2
8	Chemistry of Natural Products	-	3	2
9	Project Commencement	-	-	-
	Total Credits			25

IV Year - II SEMESTER

C N	Cubins	Т	P	Credit
S. No.	Subject	1	1	S
1	Biopharmaceutics & Pharmacokinetics	3 +1	-	4
2	Clinical Pharmacy, Therapeutics & Pharmacovigilance	3+1	· =	3
3	Controlled release & Novel Drug Delivery Systems	3 +1	:: - -	4
4	Quality Assurance, GMP, GLP	3 +1	3	3
5	Biopharmaceutics & Pharmacokinetics Lab	-	3	2
6	Project Work	_	•	4
7	Project Seminar	-	-	4
8	Comprehensive Viva	14	-	2
	Total Credits			26







VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN

SYLLABUS | R08 PHARM D





साप्ताहिक/WEEKLY

प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

सं॰ 19]

नई दिल्ली, शनिवार, मई 10-मई 16, 2008 (वैशाख 20, 1930)

No. 19]

NEW DELHI, SATURDAY, MAY 10—MAY 16, 2008 (VAISAKHA 20, 1930)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके। (Separate paging is given to this Part in order that it may be filed as a separate compilation)

> भाग III—खण्ड 4 [PART III—SECTION 4]

[सांविधिक निकायों द्वारा जारी की गई विविध अधिसूचनाएं जिसमें कि आदेश, विज्ञापन और सूचनाएं सिम्मिलित हैं] [Miscellaneous Notifications including Notifications, Orders, Advertisements and Notices issued by Statutory Bodies]

भारतीय रिज़र्व बैंक

मुंबई-400001, दिनांक 9 अप्रैल 2008

सदर्भ: बैंपविवि. सं. आईबीडी.-14241/23.13.048/2007-08-- भारतीय रिज़र्व बैंक अधिनियम, 1934 (1934 का 2) की धारा 42 की उप-धारा (6) के खण्ड (ग) के अनुसरण में भारतीय रिज़र्व बैंक इसके द्वारा निदेश देता है कि उक्त अधिनियम की दूसरी अनुसूची में निम्नलिखित परिवर्तन किये जाएं :--

'' अरब बांगलादेश बैंक लिमिटेड'' शब्दों के स्थान पर ''एबी बैंक लिमिटेड'' शब्द होंगे।

ENIKEPADU VIJAYAWADA. O

आनन्द सिन्हा कार्यपालक निदेशक

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

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

New Delhi, 10th 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 13th 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

- 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.



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 31st 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.



b) Pharm.D. (Post Baccalaureate) 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 Baccalaureate) 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 Baccalaureate) 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
	Total hours	16	18	6 = (40)

* For Biology





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
	Total Hours	17	9	6 = 32

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
	Total hours	16	15	5 = 36





Fourth Year:

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical/ Hos pital Pos ting	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
	Total hours	15	12	6 = 33

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	-
	Total hours	8	20	4 = 32

^{*} Attending ward rounds on daily basis.





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.
- 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:

TABLES

First Year examination:

S.No.	Name of Subject	Maximu	m 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.



Second Year examination:

S.No.	Name of Subject	Maximu	m marks for	Theory	Maximum marks for Practicals			
		Examination	Sessional	Total	Examination	Sessional	Total	
2.1	Pathophy siology	70	30	100	-	-	-	
2.2	Pharmaceutical Microbiology	70	30	100	70	30	100	
2.3	Pharmacognosy & Phytopharmaceuticals	70	30	100	70	30	100	
2.4	Pharmacolo gy -1	70	30	100	-	-	-	
2.5	Community Pharmacy	70	30	100		-	-	
2.6	Pharmacotherapeutics-I	70	30	100	70	30	100	
				600			300 = 900	

Third Year examination:

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals			
		Examination	Sessional	Total	Examination	Sessional	Total	
3.1	Pharmacology -II	70	30	100	70	30	100	
3.2	Pharmaceutical Analysis	70	30	100	70	30	100	
3.3	Pharmacotherapeutics-II	70	30	100	70	30	100	
3.4	Pharmaceutical Jurisprudence	70	30	100	-	-	-	
3.5	Medicinal Chemistry	70	30	100	70	30	100	
3.6	Pharmaceutical Formulations	70	30	100	70	30	100	
				600		No.Certi	500 = 1100	

Fourth Year examination:

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals			
		Examination	Sessional	Total	Examination	Sessional	Total	
4.1	Pharmacotherapeutics-III	70	30	100	70	30	100	
4.2	Hospital Pharmacy	70	30	100	70	30	100	
4.3	Clinical Pharmacy	70	30	100	70	30	100	
4.4	Biostatistics & Research Methodology	70	30	100	•	-	-	
4.5	Biopharmaceutics & Pharmacokinetics	70	30	100	70	30	100	
4.6	Clinical Toxicology	70	30	100		-	-	
				600			400 = 1000	



Fifth Year examination:

S.No.	Name of Subject	Maximu	m marks for	Theory	Maximum marks for Practicals			
		Examination	Sessional	Total	Examination	Sessional	Total	
5.1	Clinical Research	70	30	100	-	-	-	
5.2	Pharmacoepidemiology and Pharmacoeconomics	70	30	100	-	-	-	
5.3	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	70	30	100	04		*1	
5.4	Clerkship *	- 4	-	-	70	30	100	
5.5	Project work (Six Months)		-	-	100**	-	100	
				300			200 = 50	

- * Attending ward rounds on daily basis.
- ** 30 marks viva-voce (oral)

70 marks - Thesis work

- 11. Eligibility for appearing Examination.— Only such students who produce certificate from the Head of the Institution in which he or she has undergone the Pharm.D. or as the case may be, the Pharm.D. (Post Baccalaureate) course, in proof of his or her having regularly and satisfactorily undergone the course of study by attending not less than 80% of the classes held both in theory and in practical separately in each subject shall be eligible for appearing at examination.
- 12. Mode of examinations.— (1) Theory examination shall be of three hours and practical examination shall be of four hours duration.
 - (2) A Student who fails in theory or practical examination of a subject shall re-appear both in theory and practical of the same subject.
 - (3) Practical examination shall also consist of a viva -voce (Oral) examination.
 - (4) Clerkship examination Oral examination shall be conducted after the completion of clerkship of students. An external and an internal examiner will evaluate the student. Students may be asked to present the allotted medical cases followed by discussion. Students' capabilities in delivering clinical pharmacy services, pharmaceutical care planning and knowledge of therapeutics shall be assessed.
- 13. Award of sessional marks and maintenance of records.— (1) A regular record of both theory and practical class work and examinations conducted in an institution imparting training for Pharm.D. or as the case may be, Pharm.D. (Post Baccalaureate) course, shall be maintained for each student in the institution and 30 marks for each theory and 30 marks for each practical subject shall be allotted as sessional.
 - (2) There shall be at least two periodic sessional examinations during each academic year and the highest aggregate of any two performances shall form the basis of calculating sessional marks.
 - (3) The sessional marks in practicals shall be allotted on the following basis:-

(i) Actual performance in the sessional examination

(20 marks);

(ii) Day to day assessment in the practical class work, prompters viva voce record maintenance, etc.

ENIKEPADU VIJAYAWADA (10 marks).

- 14. Minimum marks for passing examination.— A student shall not be declared to have passed examination unless he or she secures at least 50% marks in each of the subjects separately in the theory examinations, including sessional marks and at least 50% marks in each of the practical examinations including sessional marks. The students securing 60% marks or above in aggregate in all subjects in a single attempt at the Pharm.D. or as the case may be, Pharm. D. (Post Baccalaureate) course examination shall be declared to have passed in first class. Students securing 75% marks or above in any subject or subjects shall be declared to have passed with distinction in the subject or those subjects provided he or she passes in all the subjects in a single attempt.
- 15. Eligibility for promotion to next year.— All students who have appeared for all the subjects and passed the first year annual examination are eligible for promotion to the second year and, so on. However, failure in more than two subjects shall debar him or her from promotion to the next year classes.
- 16. Internship.— (1) Internship is a phase of training wherein a student is expected to conduct actual practice of pharmacy and health care and acquires skills under the supervision so that he or she may become capable of functioning independently.
 - (2) Every student has to undergo one year internship as per Appendix-C to these regulations.
- 17. Approval of examinations.— Examinations mentioned in regulations 10 to12 and 14 shall be held by the examining authority hereinafter referred to as the university, which shall be approved by the Pharmacy Council of India under sub-section (2) of section 12 of the Pharmacy Act, 1948. Such approval shall be granted only if the examining authority concerned fulfills the conditions as specified in Appendix-D to these regulations.
- 18. Certificate of passing examination.— Every student who has passed the examinations for the Pharm.D. (Doctor of Pharmacy) or Pharm.D. (Post Baccalaureate) (Doctor of Pharmacy) as the case may be, shall be granted a certificate by the examining authority.



CHAPTER-III Practical training

- 19. Hospital posting.— Every student shall be posted in constituent hospital for a period of not less than fifty hours to be covered in not less than 200 working days in each of second, third & fourth year course. Each student shall submit report duly certified by the preceptor and duly attested by the Head of the Department or Institution as prescribed. In the fifth year, every student shall spend half a day in the morning hours attending ward rounds on daily basis as a part of clerkship. Theory teaching may be scheduled in the afternoon.
- 20. Project work.— (1) To allow the student to develop data collection and reporting skills in the area of community, hospital and clinical pharmacy, a project work shall be carried out under the supervision of a teacher. The project topic must be approved by the Head of the Department or Head of the Institution. The same shall be announced to students within one month of commencement of the fifth year classes. Project work shall be presented in a written report and as a seminar at the end of the year. External and the internal examiners shall do the assessment of the project work.
 - (2) Project work shall comprise of objectives of the work, methodology, results, discussions and conclusions.
- 21. Objectives of project work. The main objectives of the project work is to—
 - show the evidence of having made accurate description of published work of others and of having recorded the findings in an impartial manner; and
 - (ii) develop the students in data collection, analysis and reporting and interpretation skills.
- 22. Methodology.— To complete the project work following methodology shall be adopted, namely:—
 - (i) students shall work in groups of not less than two and not more than four under an authorised teacher;
 - (ii) project topic shall be approved by the Head of the Department or Head of the Institution;
 - (iii)project work chosen shall be related to the pharmacy practice in community, hospital and clinical setup. It shall be patient and treatment (Medicine) oriented, like drug utilisation reviews, pharmacoepidemiology, pharmacovigilance or pharmacoeconomics;
 - (iv) project work shall be approved by the institutional ethics committee;
 - (v) student shall present at least three seminars, one in the beginning, one at middle and one at the end of the project work; and
 - (vi) two-page write-up of the project indicating title, objectives, methodology anticipated benefits and references shall be submitted to the Head of the Department or Head of the Institution.



- 23. Reporting .— (1) Student working on the project shall submit jointly to the Head of the Department or Head of the Institution a project report of about 40-50 pages. Project report should include a certificate issued by the authorised teacher, Head of the Department as well as by the Head of the Institution
 - (2) Project report shall be computer typed in double space using Times Roman font on A4 paper. The title shall be in bold with font size 18, sub-tiles in bold with font size 14 and the text with font size 12. The cover page of the project report shall contain details about the name of the student and the name of the authorised teacher with font size 14.
 - (3) Submission of the project report shall be done at least one month prior to the commencement of annual or supplementary examination.
- 24. Evaluation.— The following methodology shall be adopted for evaluating the project work—
 - (i) Project work shall be evaluated by internal and external examiners.
 - (ii) Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of four students).
 - (iii) Three seminars presented by students shall be evaluated for twenty marks each and the average of best two shall be forwarded to the university with marks of other subjects.

(iv) Evaluation shall be done on the following items:	Marks
a) Write up of the seminar	(7.5)
b) Presentation of work	(7.5)
c) Communication skills	(7.5)
d) Question and answer skills	(7.5)
Total	(30 marks)
(v) Final evaluation of project work shall be done on the following items:	Marks
a) Write up of the seminar	(17.5)
b) Presentation of work	(17.5)
c) Communication skills	(17.5)
d) Question and answer skills	(17.5)
Total	(70 marks)

Explanation.— For the purposes of differentiation in the evaluation in case of topic being the same for the group of students, the same shall be done based on item numbers b, c and d mentioned above.





VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN

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SYLLABUS | R13 M.PHARMACY



VIJAYA INSTITUTE
PHARMACEUTICAL SCIENCES FOR WOMEN
ENKEPADU VIJAYAWADA 521 108

COURSE STRUCTURE AND DETAILED SYLLABUS

For M.PHARMACY Pharmaceutics







JAWAHARLAL NEHRUTECHNOLOGY UNIVERSITY KAKINADA KAKINADA - 533 003, Andhra Pradesh, India

M.PHARMACY PHARMACEUTICS

I SEMESTER

Paper 101 - Modern Analytical Techniques
 Paper 102 - Research Methodologies
 Paper 103 - Biopharmaceutics & Pharmacokinetics
 Paper 104 - Advanced Physical Pharmaceutics
 Paper 105 - Biopharmaceutics & Pharmacokinetics - LAB
 Paper 106 - Advanced Physical Pharmaceutics - LAB
 Paper 107 - Seminar

II SEMESTER

Paper 201 - Advanced Pharmaceutical Technology

Paper 202 - Advances In Drug Delivery Systems

Paper 203 - Industrial Pharmacy

Paper 204 - Drug Regulatory Affairs

Paper 205 - Advanced Pharmaceutical Technology - LAB

Paper 206 - Advances In Drug Delivery Systems - LAB

Paper 207 - Seminar

ENIKEPADU

III SEMESTER

Paper 301 - Seminar-I
Paper 302 - Project Works

IV SEMESTER

Paper 401 - Seminar-II

Paper 402 - Project Work - II

Paper 403 - Comprehensive Viva Voce

VIJAYA INSTITUTE
PHARMACEUTICAL SCIENCES FOR WOMEN
ENIKEPADU VIJAYAWADA 52' 108

SCHEME OF INSTRUCTIONS AND EVALUATION PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE

			I SEME	STER			
Paper	Title	Evaluation / Marks					
No.	of the	7	Theory	Practica	ıl		
	Paper	Mid Examina tion	University End Examina- tion	Mid Examina- tion	University End Examina tion	Total	Cred- its
Paper - 101	Modern Analytical Techniques	40	60			100	3
Paper - 102	Research Methodo -logies	40	60			100	3
Paper - 103	Biopharma- ceutics & Pharcokineties	40	60			100	3
Paper - 104	Advanced Physical Pharmaceutics	40	60			100	3
Paper - 105	Biopharma- ceutics &Pharcokineties			40	60	100	2
Paper - 106	Advanced Physical Pharmaceutics	okama	EPADU (AWADA.	40	60	100	2
Paper - 107	Seminal	ALIANS OF THE OF	EPADU CON CONTRACTOR C		MOIPAL	100	2
	Total	A STATE OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OWNER OF THE OWNER	* namote	VIJAYA PHARMACEUTIC ENIKEPADU	INSTITUTAL SCIENCES FOR N	NOMEN 71 700	18

PHARMACEUTICAL SCIENCES FOR WOMEN ENIKEPADU VIJAYAWADA 521 108

III SEMESTER

Paper No.		Marks	Credits
Paper - 301	Seminar - I	50	2
Paper - 302	Project work - I	100	14
	Total	150	16

IV SEMESTER

Paper No.		Marks	Credits
Paper - 401	Seminar – II	50	2
Paper - 402	Project work – II	100	14
Paper - 403	Comprehensive Viva Voce	100	4
	Total	250	20
Grand Total (Four Semesters)		1800	72





COURSE STRUCTURE AND DETAILED SYLLABUS

For M.PHARMACY PHARMACEUTICALANALYSIS AND QUALITY ASSURANCE







JAWAHARLAL NEHRUTECHNOLOGY UNIVERSITY KAKINADA KAKINADA - 533 003, Andhra Pradesh, India

M.PHARMACY

PHARMACEUTICALANALYSIS AND QUALITY ASSURANCE

I SEMESTER

Paper 101 - Modern Analytical Techniques

Paper 102 - Research Methodologies

Paper 103 - Advanced Pharmaceutical Analysis - I

Paper 104 - Chromatographic and Other Special techniques

Paper 105 - Advanced Pharmaceutical Analysis-I - LAB

Paper 106 - Chromatographic and Other Special techniques - LAB

Paper 107 - Seminar

II SEMESTER

Paper 201 - Advanced Pharmaceutical Analysis - II

Paper 202 - Phytopharmaceutical and Biological Analysis

Paper 203 - Quality Assurance of Pharmaceuticals - I

Paper 204 - Drug Regulatory Affairs

Paper 205 - Advanced Pharmaceutical Analysis - II - LAB

Paper 206 - Phytopharmaceutical and Biological Analysis - LAB

Paper 207 - Seminar

III SEMESTER

Paper 301 - Seminar-I

Paper 302 - Project Work

IV SEMESTER

Paper 401 - Seminar-II

Paper 402 - Project Work - II

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PHARMACEUTICAL SCIENCES FOR WOMEN
ENIKEPADU VIJAYAWADA 521 108

SCHEME OF INSTRUCTIONS AND EVALUATION PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE

			I SEME	STER			
Paper	r Title Evaluation / Marks						
No.	of the	7	Theory	Practica	ıl		
	Paper	Mid Examina tion	University End Examina- tion	Mid Examina- tion	University End Examina tion	Total	Cred- its
Paper - 101	Modern Analytics Techniques	40	60			100	3
Paper - 102	Research Methodo -Igies	40	60			100	3
Paper - 101	Advanced Pharmaceutical Analysis	40	60			100	3
Paper - 102	Chromato graphic and other special Techniques	40	60			100	3
Paper - 104	Advanced Pharmaceutical Analysis I Practical			40	60	100	3
Paper - 105	Chromato graphic and other special Techniques I Practical		aceutica/ screen	40	60	100	3
Paper - 106		o aniii eii	NAVAWADA OF	VIJ	AYA INSTI	100	2
	Total	1	Melly * no	PHARMAC	EUTICAL SCIENCES	FOR WOME	

rhatmaceutical Analysis And Quanty Assurance

II SEMESTER							
Paper	Title	Evaluation / Marks					
No.	of the	٦	Theory	Practica	ı		
	Paper	Mid Examina tion	University End Examina- tion	Mid Examina- tion	University End Examina tion	Total	Cred- its
Paper - 201	Advanced Pharmaceutical Analysis-II	40	60	43		100	3
Paper - 202	Pharmaceutical and Biological Analysis	40	60			100	3
Paper - 203	Quality Assuraranceof Pharmaceutical	3.70	60			100	3
Paper - 204	Drug Regultory Affairs	40	60			100	3
Paper - 205	Advanced Pharmaceutical I Analysis II Practical			40	60	100	3
Paper - 205	Phytopharma ceutical and Biological Analysis Practical			40	60	100	3
Paper - 206	Seminal	(Sept)	AIKEPADU AYAWADA.			100	2
	Total	of to all the of	HIKEPADU ES	VIJ	AYA INSTI	FOR MOM	18
1191				ENIKEPA	DAWAYALIV UD.	A 521 10)A

III SEMESTER

Paper No.		Marks	Credits
Paper - 301	Seminar – I	50	2
Paper - 302	Project work – I	100	14
	Total	150	16

IV SEMESTER

Paper No.		Marks	Credits
Paper - 401	Seminar – II	50	2
Paper – 402	Project work – II	100	14
Paper - 403	Comprehensive Viva Voce	100	4
	Total	250	20
Grand Total (Four Semesters)		1800	72



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PHARMACEUTICAL SCIENCES FOR WOMEN
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COURSE STRUCTURE AND DETAILED SYLLABUS

For M.PHARMACY PHARMACOLOGY







JAWAHARLAL NEHRUTECHNOLOGY UNIVERSITY KAKINADA KAKINADA - 533 003, Andhra Pradesh, India

SYLLABUS for M.PHARMACY PHARMACOLOGY

I SEMESTER

Paper 101 - Modern Analytical Techniques

Paper 102 - Research Methodologies

Paper 103 - Systemic Pharmacology

Paper 104 - Pharmacokinetics and Drug Metabolism

Paper 105 - Systemic Pharmacology - LAB

Paper 106 - Pharmacokinetics and Drug Metabolism – LAB

Paper 107 - Seminar

II SEMESTER

Paper 201 - Advanced Pharmacology

Paper 202 - Pathophysiology and Pharmacotherapeutics

Paper 203 - Bioassays & Pharmacological Screening Methods

Paper 204 - Drug Regulatory Affairs

Paper 205 - Pathophysiology and Pharmacotherapeutics - LAB

Paper 206 - Bioassays & Pharmacological Screening Methods - LAB

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Paper 207 - Seminar

III SEMESTER

Paper 301 - Seminar-I

Paper 302 - Project Work – I

IV SEMESTER

Paper 401 - Seminar-II

Paper 402 - Project Work - II

Paner 403 - Comprehensive Viva Voce



SCHEME OF INSTRUCTIONS AND EVALUATION PHARMACOLOGY

			I SEME	STER			
Paper	Title		Evaluation	/ Marks			
No.	of the	٦	Theory	Practica	ıl		
	Paper	Mid Examina tion	University End Examina- tion	Mid Examina- tion	University End Examina tion	Total	Cred- its
Paper - 101	Modern Analytical Techniques	40	60			100	3
Paper - 102	Research Methodo -logies	40	60			100	3
Paper - 103	Systemic Pharmaco - logy	40	60			100	3
Paper - 104	Pharmaco kinetics and drug Metabolism	40	60			100	3
Paper - 105	Systemic Phramaco logy- Lab			40	60	100	2
Paper - 106	Pharmaco kinetics and drug Metabolism Lab		MACEULICAL CO.	40	60	100	2
Paper - 107		titute of	NIKEPADU RES	VIJA	PAINCIPAL YA INSTIT	u 120	2
	Total	(See	NIKEPADU S	ENIKEPADI	VIJAYAWADA	521 10> 700	18

			II SEME	ESTER			
Paper	Title	Evaluation / Marks					
No.	of the	7	Theory	Practica	ıl		
	Paper	Mid Examina tion	University End Examina- tion	Mid Examina- tion	University End Examina tion	Total	Cred- its
Paper - 201	Advanced Pharmac ology	40	60			100	3
Paper - 202	Pathophy siology Pharma cother apeutics	40	60			100	3
Paper - 203	Bioassays and Phamacological Screening Methods	40	60			100	3
Paper - 204	Drgu Regultory Affairs	40	60			100	3
Paper - 205	Pathophy siology Pharma cother apeutics - Lab			40	60	100	2
Paper - 206	Bioassays and Pharmacdogica Screening Methods -			40	60	100	2
Paper - 207	Seminar	aimaci	utica/ Scie	M	N 15	100	2
	Total	A Jo of Ph	EPADU RESTOR	VIJAY	PRINCIPAL A INSTITUTION SCIENCES FOR VIJAYAWADA	T 700 WOMEI 521 108	18

III SEMESTER

Paper No.		Marks	Credits
Paper - 301	Seminar – I	50	2
Paper - 302	Project work – I	100	14
	Total	150	16

IV SEMESTER

Paper No.		Marks	Credits
Paper - 401	Seminar – II	50	2
Paper - 402	Project work – II	100	14
Paper - 403	Comprehensive Viva Voce	100	4
	Total	250	20
Grand Total (Four Semesters)		1800	72

*** Credits for III & IV Seminar (Research & Seminar) = 40



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SCANNED	IMAGES OF	COLLEGE	CALENDAR
	(2015	– 16)	

Vijaya Institute of Pharmaceutical Sciences for Women Enikepadu, Vijayawada – 521108.

I Semester Academic Calendar for the year 2015-16

Commencement of Class Work	IV B. Pharm	III B. Pharm	II B. Pharm	I B. Pharm
	13.07.2015	29.06.2015	20.07.2015	17.08.2015
I Unit Instruction	13.07.2015 - 05.09.2015	29.06.2015 - 22.08.2015	20.07.2015 - 12.09.2015	17.08.2015 - 10.10.2015
I Mid Exams	07.09.2015 - 12.09.2015	24.08.2015 - 29.08.2015	14.09.2015 - 19.09.2015	05.10.2015 - 10.10.2015
II Unit Instruction	14.09.2015 - 07.11.2015	31.08.2015 - 24.10.2015	21.09.2015 - 14.11.2015	12.10.2015 - 05.12.2015
Internal Lab Exams	12.10.2015 - 17.10.2015	12.10.2015 - 17.10.2015	09.11.2015 - 14.11.2015	23.11.2015 - 28.11.2015
II Mid Exams	09.11.2015 - 14.11.2015	26.10.2015 - 31.10.2015	16.11.2015 - 21.11.2015	30.11.2015 - 05.12.2015
External Lab Exams	16.11.2015 – 21.11.2015	02.11.2015 - 07.11.2015	23.11.2015 - 28.11.2015	07.12.2015 - 12.12.2015
Sem End Exams	23.11.2015 - 05.12.2015	09.11.2015 - 21.11.2015	30.11.2015 - 12.12.2015	14.12.2015 - 26.12.2015
II Sem Commencement	07.12.2015	23.11.2015	14.12.2015	28.12.2015

Note:-

1. Dasahara :- 18.10.2015 - 25.10.2015.

II Semester Academic Calendar for the year 2015-16

Commencement of	IV B. Pharm	III B. Pharm	II B. Pharm	I B. Pharm	
Class Work	07.12.2015	23.11.2015	14.12.2015	28.12.2015	
I Unit Instruction	07.12.2015 - 30.12.2015	23.11.2015 - 16.01.2016	14.12.2015 - 06.02.2016	28.12.2015 - 20.02.2016	
I Mid Exams	01.02.2016 - 06.02.2016	18.01.2016 -23.01.2016	08.02.2016 - 13.02.2016	15.02.2016 - 20.02.2016	
II Unit Instruction	08.02.2016 - 02.04.2016	25.01.2016 -19.03.2016	15.02.2016 -09.04.2016	22.02.2016 - 16.04.2016	
Internal Lab Exams	30.03.2016 - 31.03.2016	14.03.2016 - 19.03.2016	04.04.2016 - 09.04.2016	04.04.2016 - 09.04.2016	
II Mid Exams	04.04.2016 - 09.04.2016	21.03.2016 - 26.03.2016	11.04.2016- 16.04.2016	11.04.2016 - 16.04.2016	
External Lab Exama Maceutical			18.04.2016 - 23.04.2016	18.04.2016 - 23.04.2016	
Sem End Exams	04.2018 - 30.04.2016		25.04.2016 - 07.05.2016	25.04.2016 - 07.05.2016	
B ENIKEPAD'	1011	(Ma	ette	11 60 -	
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PHARMAGEUTICAL SCIENCES FOR WOMEN

Vijaya Institute of Pharmaceutical Sciences for Women Enikepadu, Vijayawada - 521108.

Academic Calendar for the year 2015-16

Commencement of	I Pharm D	
Class Work	17.08.2015	
I Unit Instruction	17.08.2015 - 07.11.2015	
I Mid Exams	09.11.2015 - 14.11.2015	
II Unit Instruction	16.11.2015 - 13.02.2016	
II Mid Exams	15.02.2016 - 20.02.2016	
III Unit Instruction	22.02.2016 - 14.05.2016	
III Mid Exams	16.05.2016 - 21.05.2016	
Internal Lab	09.05.2016 - 14.05.2016	
External Lab	13.06.2016 - 25.06.2016	
End Exams	27.06.2016 - 09.07.2016	
II Year Commencement	11.07.2016	

Note:-

:- 18.10.2015 - 25.10.2015.

2. Pongal Holidays :- 11.01.2016 - 16.01.2016.

3. Summer Vacation :- 23.05.2016 - 11.06.2016

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VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN Enikepadu, Vijayawada – 521108

I M.PHARM ACADEMIC CALENDAR FOR THE YEAR 2015-16

Commencement of	I SEMESTER	II SEMESTER 15.02.2016	
Class Work	14.09.2015		
I Unit Instruction	14.09.2015 - 14.11.2015	15.02.2016 - 09.04.2016	
I Mid Exams	16.11.2015 - 21.11.2015	11.04.2016 - 16.04.2016	
II Unit Instruction	23.11.2015 – 16.01.2016	18.04.2016 - 07.05.2016 23.05.2016 - 25.06.206	
Internal Lab Exams	17.01.2016 – 17.01.2016	26.06.2016 - 26.06.2016	
II Mid Exams	18.01.2016 - 23.01.2016	27.06.2016 - 02.07.2016	
External Lab Exams	25.01.2016 - 30.01.2016	04.07.2016 - 09.07.2016	
Sem End Exams	01.02.2016 - 13.02.2016	11.07.2016 - 23.07.2016	

II M.PHARM ACADEMIC CALENDAR FOR THE YEAR 2015-16

Commencement of	III SEMESTER	IV SEMESTER 21.03.2016	
Class Work	19.10.2015		
Project Work	19.10.2015 - 19.03.2016	*	
Seminar - I	19.03.2016		
Project Work		21.03.2016 - 20.08.2016	
Seminar - II		20.08.2016	
Thesis Submission		22.08.2016 - 12.11.2016	

Note:

Dasahara Holidays: 18.10.2015 – 25.10.2015
 Pongal Holidays: 11.01.2016 – 16.01.2016.
 Summaer Vacation: 09.05.2016 – 21.05.2016



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