



# JEYPORE COLLGE OF PHARMACY

(Under the patronage of Banagiri Development Trust)

Approved by Government of Odisha, Pharmacy Council of India, New Delhi

& Affiliated to Biju Patnaik University of Technology

Ref No.: Date:

# 1.2.1 Academic Flexibility

1.2.1 Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented. Jeypore College of Pharmacy is affiliated to Biju Patnaik University of technology University and hence the college follows course structure and syllabus laid down by the Pharmacy Council of India which is adopted by the University as such. The course curriculum laid down by the above said regulatory authority is Choice based credit system and hence we propose that the B. Pharmacy program has CBCS where student have to earn minimum 208 credit points for the award of B. Pharmacy degree.

Similarly, provision of elective course system is implemented in semester VIII where student can opt for any two elective subjects out of 10 subjects. The course structure highlighting credit-based system and elective subjects are attached herewith.

PRINCIPAL
JEYPORE COLLEGE OF PHARMACY
RONDAPALLI, JEYPORE (K) 764002

Rondapalli, Jeypore, Dist. Koraput-764 002, Odisha

#### **CHAPTER- I: REGULATIONS**

#### 1. Short Title and Commencement

These regulations shall be called as "The Revised Regulations for the B. Pharm. Degree Program (CBCS)of the Pharmacy Council of India, New Delhi". They shall come into effect from the Academic Year 2016-17. The regulations framed are subject to modifications from time to time by Pharmacy Council of India.

# 2. Minimum qualification for admission

#### 2.1 First year B. Pharm:

Candidate shall have passed 10+2 examination conducted by the respective state/central government authorities recognized as equivalent to 10+2 examination by the Association of Indian Universities. (AIU) with English as one of the subjects and Physics, Chemistry, Mathematics (P.C.M) and or Biology (P.C.B / P.C.M.B.) as optional subjects individually. Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

## 2.2. B. Pharm lateral entry (to third semester):

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

## 3. Duration of the program

The course of study for B.Pharm shall extend over a period of eight semesters (four academic years) and six semesters (three academic years) for lateral entry students. The curricula and syllabi for the program shall be prescribed from time to time by Pharmacy Council of India, New Delhi.

#### 4. Medium of instruction and examinations

Medium of instruction and examination shall be in English.

#### 5. Working days in each semester

Each semestershall consist of not less than 100 working days. The odd semesters shall be conducted from the month of June/July to November/December and the eyen semesters shall be conducted from December/January to May/June in every calendar year.

#### 6. Attendance and progress

A candidate is required to put in at least 80% attendance in individual courses considering theory and practical separately. The candidate shall complete the prescribed course satisfactorily to be eligible to appear for the respective examinations.



## 7. Program/Course credit structure

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, tutorial hours, practical classes, etc. are measured in terms of credits. On satisfactory completion of the courses, a candidate earns credits. The amount of credit associated with a course is dependent upon the number of hours of instruction per week in that course. Similarly, the credit associated with any of the other academic, co/extra-curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week.

#### 7.1. Credit assignment

# 7.1.1. Theory and Laboratory courses

Courses are broadly classified as Theory and Practical. Theory courses consist of lecture (L) and /or tutorial (T) hours, and Practical (P) courses consist of hours spent in the laboratory. Credits (C) for a course is dependent on the number of hours of instruction per week in that course, and is obtained by using a multiplier of one (1) for lecture and tutorial hours, and a multiplier of half (1/2) for practical (laboratory) hours. Thus, for example, a theory course having three lectures and one tutorial per week throughout the semester carries a credit of 4. Similarly, a practical having four laboratory hours per week throughout semester carries a credit of 2.

## 7.2. Minimum credit requirements

The minimum credit points required for award of a B. Pharm. degree is 208. These credits are divided into Theory courses, Tutorials, Practical, Practice School and Projectover the duration of eight semesters. The credits are distributed semester-wise as shown in Table IX. Courses generally progress in sequences, building competencies and their positioning indicates certain academic maturity on the part of the learners. Learners are expected to follow the semester-wise schedule of courses given in the syllabus.

The lateral entry students shall get 52 credit points transferred from their D. Pharm program. Such students shall take up additional remedial courses of 'Communication Skills' (Theory and Practical) and 'Computer Applications in Pharmacy' (Theory and Practical) equivalent to 3 and 4 credit points respectively, a total of 7 credit points to attain 59 credit points, the maximum of 1 and 11 semesters.

# 8. Academic work

A regular record of attendance both in Theory and Practical shall be maintained by the teaching staff of respective courses.

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## 9. Course of study

The course of study for B. Pharm shall include Semester Wise Theory & Practical as given in Table – I to VIII. The number of hours to be devoted to each theory, tutorial and practical course in any semester shall not be less than that shown in Table – I to VIII.

Table-I: Course of study for semester I

Table-1: Course of study for s			
Name of the course	No. of	Tuto	Credit
Traine of the course	hours	rial	points
Human Anatomy and Physiology I-	3	1	4
Theory			
Pharmaceutical Analysis I – Theory		l	4
Pharmaceutics I – Theory	3	1	4
Pharmaceutical Inorganic Chemistry -	3	1	4
Communication skills – Theory *	2	-	2
Remedial Biology/	2	_	2
Remedial Mathematics – Theory*	_		
Human Anatomy and Physiology –	4	1-1	2
Practical			
Pharmaceutical Analysis I – Practical		` <u>-</u>	2
Pharmaceutics I – Practical	4	-	2
	4	-	2
Practical			1
		-	1
Remedial Biology – Practical*	_	-	27/29 <sup>S</sup> /30 <sup>#</sup>
			W. S. 1875
	Pharmaceutical Analysis I – Theory Pharmaceutics I – Theory Pharmaceutical Inorganic Chemistry – Theory Communication skills – Theory * Remedial Biology/ Remedial Mathematics – Theory* Human Anatomy and Physiology – Practical Pharmaceutical Analysis I – Practical Pharmaceutics I – Practical Pharmaceutical Inorganic Chemistry – Practical Communication skills – Practical* Remedial Biology – Practical*	Human Anatomy and Physiology I— Theory  Pharmaceutical Analysis I — Theory  Pharmaceutical Inorganic Chemistry— Theory  Communication skills — Theory * 2  Remedial Biology/ Remedial Mathematics — Theory*  Human Anatomy and Physiology— Practical  Pharmaceutical Analysis I — Practical  Pharmaceutical Inorganic Chemistry— Practical  Pharmaceutical Inorganic Chemistry— Practical  Communication skills — Practical*  Communication skills — Practical*  Zemedial Biology — Practical*  Communication skills — Practical*  Zemedial Biology — Practical*  Total  Total	Name of the coursehoursrialHuman Anatomy and Physiology I— Theory31Pharmaceutical Analysis I – Theory31Pharmaceutics I – Theory31Pharmaceutical Inorganic Chemistry – Theory31Communication skills – Theory *2-Remedial Biology/ Remedial Mathematics – Theory*2-Human Anatomy and Physiology – Practical4-Pharmaceutical Analysis I – Practical4-Pharmaceutical Inorganic Chemistry – Practical4-Communication skills – Practical*2-Remedial Biology – Practical*2-

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

SApplicable ONLY for the students who have studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics (RM)course.

<sup>\*</sup> Non University Examination (NUE)

Table-II: Course of study for semester II

Course Code	Name of the course	No. of hours	Tutorial	Credit points
BP201T	Human Anatomy and Physiology II – Theory	3	1	4
BP202T	Pharmaceutical Organic Chemistry I – Theory	3	1	4
BP203T	Biochemistry – Theory	3	· 1	4
BP204T	Pathophysiology – Theory	3	1	4
BP205T	Computer Applications in Pharmacy – Theory *	3	-	3
BP206T	Environmental sciences – Theory *	3	-	3
BP207P	Human Anatomy and Physiology II –Practical	4	-	2
BP208P	Pharmaceutical Organic Chemistry I- Practical	4	-	2
BP209P	Biochemistry - Practical	4	-	2
BP210P	Computer Applications in Pharmacy - Practical*	2	-	1
	Total	32	4	29

\*Non University Examination (NUE)

Table-III: Course of study for semester III

Course	Name of the course	No. of hours	Tutorial	Credit points
code	•			points
BP301T	Pharmaceutical Organic Chemistry II - Theory	3	1	4
BP302T	Physical Pharmaceutics I – Theory	3	1	4
BP303T	Pharmaceutical Microbiology - Theory	3	1	4
BP304T	Pharmaceutical Engineering – Theory	3	1	4
BP305P	Pharmaceutical Organic Chemistry II - Practical	4	-	2
BP306P	Physical Pharmaceutics I – Practical	4	, <del>-</del> ,	2
BP307P	Pharmaceutical Microbiology – Practical	4		2
BP 308P	Pharmaceutical Engineering –Practical	4	-	2
	Total	28	4	24

Table-IV: Course of study for semester IV

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP401T	Pharmaceutical Organic Chemistry III- Theory	3	1	4
BP402T	Medicinal Chemistry I – Theory	3	1	4
BP403T	Physical Pharmaceutics II – Theory	3	1	4
BP404T	Pharmacology I – Theory	3	1	4
BP405T	Pharmacognosy and Phytochemistry I- Theory	3	1	4
BP406P	Medicinal Chemistry I – Practical	4	-	2
BP407P	Physical Pharmaceutics II – Practical	4		2
BP408P	Pharmacology I – Practical	4	-	2
BP409P	Pharmacognosy and Phytochemistry I – Practical	4	-	2
	Total	31	5	28

Table-V: Course of study for semester V

Course	Name of the course	No. of	Tutorial	Credit
code		hours		points
BP501T	Medicinal Chemistry II – Theory	3	. 1	4
BP502T	Industrial Pharmacyl– Theory	3	1	4
BP503T	Pharmacology II – Theory	3	1	4
BP504T	Pharmacognosy and Phytochemistry II- Theory	3	1	4
BP505T	Pharmaceutical Jurisprudence - Theory	3	1	4
BP506P	Industrial PharmacyI – Practical	4	-	2
BP507P	Pharmacology II – Practical	4	-	2
BP508P	Pharmacognosy and Phytochemistry II –	4	-	2
	Practical .			
	Total	27.	5	26

Table-VI: Course of study for semester VI

Course code	Name of the course	No. of hours	Tutorial	Credit points
	· · · · · · · · · · · · · · · · · · ·		1	
BP601T	Medicinal Chemistry III – Theory	3	1	4
BP602T	Pharmacology III – Theory	3	1	4
BP603T	Herbal Drug Technology – Theory	3	1	4
DDCOAT	Biopharmaceutics and Pharmacokinetics –	3	1	4
BP604T	Theory	3		,
BP605T	Pharmaceutical Biotechnology - Theory	3	1	4
BP606T	Quality Assurance –Theory	3	1 .	4
BP607P	Medicinal chemistry III – Practical	4	-	2
BP608P	Pharmacology III – Practical	4	-	2
BP609P	Herbal Drug Technology – Practical	4	-	2
	Total	30	6	30

Table-VII: Course of study for semester VII

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP701T	Instrumental Methods of Analysis - Theory	3	1	4
BP702T	Industrial PharmacyII – Theory	3	1	4
BP703T	Pharmacy Practice – Theory	3	1	4
BP704T	Novel Drug Delivery System - Theory	3	1	4
BP705P	Instrumental Methods of Analysis - Practical	4	-	2
BP706PS	Practice School*	12	-	6
	Total	28	· 5·	24

<sup>\*</sup> Non University Examination (NUE)

Table-VIII: Course of study for semester VIII

Course	Name of the course	No. of hours	Tutorial	Credit points
BP801T	Biostatistics and Research Methodology	• 3	1	4
BP802T	Social and Preventive Pharmacy	3	1	4
BP803ET	Pharma Marketing Management			
BP804ET	Pharmaceutical Regulatory Science			
BP805ET	Pharmacovigilance		12	
BP806ET	Quality Control and Standardization of Herbals	3 + 3 =	1 + 1 = 2	4 + 4 =
BP807ET	Computer Aided Drug Design			
BP808ET	Cell and Molecular Biology			
BP809ET	Cosmetic Science			
BP810ET	Experimental Pharmacology			
BP811ET	Advanced Instrumentation Techniques			
BP812ET	Dietary Supplements and Nutraceuticals			
BP813PW	Project Work	12	-	6
	Total	24	4	22

Table-IX: Semester wise credits distribution

Semester	Credit Points
I .	27/29 <sup>\$</sup> /30 <sup>#</sup>
II ,	29
III	26
. IV	28
V	26
VI	· 26
VII	24
VIII	22
Extracurricular/ Co curricular activities	01*
Total credit points for the program	209/211 <sup>S</sup> /212 <sup>#</sup>

<sup>\*</sup> The credit points assigned for extracurricular and or co-curricular activities shall be given by the Principals of the colleges and the same shall be submitted to the University. The criteria to acquire this credit point shall be defined by the colleges from time to time.



<sup>&</sup>lt;sup>5</sup>Applicable ONLY for the students studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics course.

<sup>&</sup>quot;Applicable ONLY for the students studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology course.

## 10. Program Committee

- 1. The B. Pharm. program shall have a Program Committee constituted by the Head of the institution in consultation with all the Heads of the departments.
- 2. The composition of the Program Committee shall be as follows:

A senior teacher shall be the Chairperson; One Teacher from each department handling B.Pharm courses; and four student representatives of the program (one from each academic year), nominated by the Head of the institution.

- 3. Duties of the Program Committee:
  - i. Periodically reviewing the progress of the classes.
  - ii. Discussing the problems concerning curriculum, syllabus and the conduct of classes.
  - iii. Discussing with the course teachers on the nature and scope of assessment for the course and the same shall be announced to the students at the beginning of respective semesters.
  - iv. Communicating its recommendation to the Head of the institution on academic matters.
  - v. The Program Committee shall meet at least thrice in a semester preferably at the end of each Sessionalexam (Internal Assessment) and before the end semester exam.

## 11. Examinations/Assessments

The scheme for internal assessment and end semester examinations is given in Table – X.

# 11.1. End semester examinations

The End Semester Examinations for each theory and practical coursethrough semesters I to VIII shall beconducted by the university except for the subjects with asterix symbol (\*) in table I and II for which examinations shall be conducted by the subject experts at college level and the marks/grades shall be submitted to the university.

Semester VIII

9

0			Internal Assessment	sessment		End Seme	End Semester Exams	Total
Soluse	Name of the course	Continuous	Sessiona	Sessional Exams	Total	Morks	Duration	Marks
200		Mode	Marks	Duration	10141	Mai KS	Dulation	
BP801T	Biostatistics and Research Methodology—Theory	10	15	1 Hr	25	75	3 Hrs	100
BP802T	Social and Preventive Pharmacy – Theory	10	. 51	1 Hr	25	75	3 Hrs	100
BP803ET	Pharmaceutical Marketing – Theory							
BP804ET	Pharmaceutical Regulatory Science—Theory	,					-	
BP805ET	Pharmacovigilance - Theory				2.		•	
BP806ET	Quality Control and Standardization of Herbals – Theory	10 + 10	15 + 15 =		25 + 25 =		3 + 3 = 6	+ 100 +
BP807ET	Computer Aided Drug Design – Theory	07.=	30	2 Hrs	05	051 =	5111	100 = 200
BP808ET	Cell and Molecular Biology – Theory	,						
BP809ET	Cosmetic Science - Theory							
BP810ET	Experimental Pharmacology – Theory						•	
BP811ET	Advanced Instrumentation  Techniques – Theory						•	
BP812PW	Project Work	•	1	1	1	150 .	4 Hrs	150

Total 40 60 4 Hrs 100 450 16 Hrs 550
Total

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RONDAPALII, IEYPORE (K) TRACOS