

<u>Department of Pharmaceutical Sciences</u> <u>Minutes of the Meeting</u>

The Board of Studies (BoS) Meeting was conducted on 16.12.17 at Vignan's Foundation for Science, Technology & Research-University (VFSTRU) under the chairmanship of HoD, Department of Pharmaceutical Sciences, VFSTRU. The following members were present for the board of meeting

- 1. Dr. Jithendra Chimakurthy HoD, Dept. of Pharmaceutical Sciences, VFSTRU
- 2. Dr. Prakash V Diwan- Director, Central Research Laboratory, Belgaum, Karnataka
- 3. Dr. Nalini Sastry Associate Professor, NIPER, Hyderabad
- 4. Mr. B.Ravi Kumar Manager Injectable Analytical Dept., Mylan Laboratories Ltd, Hyderabad
- 5. Mr. M. Ravi Kanth Manager Regulatory Affairs, Natco Pharma Ltd, Hyderabad The following resolutions were made and passed during the BoS meeting.
 - Dr. Jithendra Chimakurthy suggested the Curriculum, structure and Regulations of the Bachelor of Pharmacy programme should be designed in accordance with the guidelines of the Pharmacy council of India. The other members accepted.
 - 2. Dr. Nalini Sastry suggested that the curriculum should follow a choice based credit system and present the course structure of B.Pharmacy programme along with the electives. The other members accepted (Annexure I).
 - 3. Dr. Prakash V Diwan suggested that all the courses should categorize into employability/entrepreneurship/skill oriented. The other members accepted (Annexure II &III).
 - 4. Members have suggested establishing industrial tie-ups for the effective implementation of the program.
 - 5. Students should be encouraged to take part in field projects.
 - 6. A mandatory internship for a minimum of 3 months in industry is necessary.
 - Guest lectures by industry personnel should be conducted to develop an effective work culture in the students.



8. Members suggested that necessary arrangements for the students to undergo apprenticeship in the industry after the completion of the course should be made.

S No	Name of the Member	Internal/ External	Designation & Address	Signature
1	Dr Jithendra Chimakurthy	Internal	HoD, Pharmaceutical Sciences, VFSTRU	antitul
2	Dr. Prakash V Diwan	External	Director, Central Research Laboratory, Belgaum, Karnataka	Or. P. V. Dirvon
3	Dr. Nalini Sastry	External	Associate Professor, NIPER, Hyderabad	N. Sayry
4	Mr. B.Ravi Kumar	External	Manager – Injectable Analytical Dept., Mylan Laboratories Ltd, Hyderabad	Pavi
5	Mr. M. Ravi Kanth	External	Manager – Regulatory Affairs, Natco Pharma Ltd, Hyderabad	Law Kanth



Annexure-I

B. Pharmacy

Table-I: Course of study for semester - I

Name of the course	No. of Hours	Tuto rial	Credit Points
Human Anatomy and Physiology I— Theory	3	1	4
Pharmaceutical Analysis I – Theory	3	1	4
Pharmaceutics I – Theory	3	1	4
Pharmaceutical Inorganic Chemistry – Theory	3	1	4
Communication skills – Theory *	2	-	2
Remedial Biology/ Remedial Mathematics – Theory*	2		2
Human Anatomy and Physiology – Practical	4	-	2
Pharmaceutical Analysis I – Practical	4	-	2
Pharmaceutics I – Practical	4	-	2
Pharmaceutical Inorganic Chemistry – Practical	4	n y n	2
Communication skills – Practical*	2	-	1
Remedial Biology – Practical*	2	Nº2	1
Total	32/34 ^{\$} /36 [#]	4	27/29 ^S /30 [#]



Table-II: Course of study for semester - II

Name of the course	No.of hours	Tutorial	Credit Points
Human Anatomy and Physiology II - Theory	3	1	4
Pharmaceutical Organic Chemistry I – Theory	3	1	4
Biochemistry - Theory	3	1	4
Pathophysiology - Theory	3	I	4
Computer Applications in Pharmacy – Theory *	3	-	3
Environmental sciences – Theory *	3		3
Human Anatomy and Physiology II -Practical	4	-	2
Pharmaceutical Organic Chemistry I- Practical	4	-	2
Biochemistry – Practical	4	~	2
Computer Applications in Pharmacy - Practical*	2	-	1
Total	32	4	29

Table-III: Course of study for semester - III

Name of the course	No.of hours	Tutorial	Credit Points
Pharmaceutical Organic Chemistry II – Theory	3	1	4
Physical Pharmaceutics I – Theory	3	1	4
Pharmaceutical Microbiology - Theory	3	1	4
Pharmaceutical Engineering – Theory	3	1	4
Pharmaceutical Organic Chemistry II – Practical	4	-	2

Physical Pharmaceutics I – Practical	4	-	2
Pharmaceutical Microbiology – Practical	4	**	2
Pharmaceutical Engineering –Practical	4	-	2
Total	28	4	24

Table-IV: Course of study for semester - IV

Name of the course	No.of hours	Tutorial	Credit Points
Pharmaceutical Organic Chemistry III- Theory	3	1	4
Medicinal Chemistry I – Theory	3	1	4
Physical Pharmaceutics II – Theory	3	1	4
Pharmacology I – Theory	3	1	4
Pharmacognosy and Phytochemistry I- Theory	3	1	4
Medicinal Chemistry I – Practical	4		2
Physical Pharmaceutics II – Practical	4		2
Pharmacology I – Practical	4	ac	2
Pharmacognosy and Phytochemistry I – Practical	4	-	2
Total	31	5	28



Table-V: Course of study for semester - V

Name of the course	No.of hours	Tutorial	Credit Points
Medicinal Chemistry II – Theory	3	1	4
Industrial PharmacyI— Theory	3	1	4
Pharmacology II – Theory	3	1	4
Pharmacognosy and Phytochemistry II- Theory	3	1	4
Pharmaceutical Jurisprudence – Theory	3	Ī	4
Industrial PharmacyI – Practical	4	(-)	2
Pharmacology II – Practical	4	1 - 8	2
Pharmacognosy and Phytochemistry II – Practical	4	-	2
Total	27	5	26

Table-VI: Course of study for semester VI

Name of the course	No.of hours	Tutorial	Credit points
Medicinal Chemistry III – Theory	3	1	4
Pharmacology III – Theory	3	1	4
Herbal Drug Technology – Theory	3	1	4
Biopharmaceutics and Pharmacokinetics – Theory	3	1	4
Pharmaceutical Biotechnology - Theory	3	1	4
Quality Assurance –Theory	3	1	4



Total	30	6	30
Herbal Drug Technology – Practical	4	-	2
Pharmacology III – Practical	4	-	2
Medicinal chemistry III – Practical	4	-	2

Table-VII: Course of study for semester - VII

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

Table-VIII: Course of study for semester - VIII

Name of the course	No.of hours	Tutorial	Credit points
Biostatistics and Research Methodology	3	1	4
Social and Preventive Pharmacy	3	1	4
ELECTIVE	S*		
Pharma Marketing Management			



Pharmaceutical Regulatory Science			
Pharmacovigilance			
Quality Control and Standardization of Herbals	3+3=	1+1=2	4 + 4 = 8
Computer Aided Drug Design			
Cell and Molecular Biology			
Cosmetic Science			
Experimental Pharmacology			
Advanced Instrumentation Techniques			
Dietary Supplements and Nutraceuticals			
Project Work	12	-	6
Total	24	4	22

^{*}The highlighted courses comes under the Choice Based Credit System (CBCS)



Annexure-II

List of courses that enable employability or entrepreneurship or skill development in the R-18 B.Pharmacy curriculum

C No	Causa Nama	O. N.
S. 110.	Course Name Human Anatomy and Physiology I—	Course Nature
1	Theory	Skill Development
2	Pharmaceutical Analysis I – Theory	Employability
3	Pharmaceutics I – Theory	Employability
4	Pharmaceutical Inorganic Chemistry – Theory	Employability
5	Human Anatomy and Physiology II – Theory	Skill Development
6	Pharmaceutical Organic Chemistry I – Theory	Employability
7	Biochemistry – Theory	Employability
8	Pathophysiology – Theory	Skill Development
9	Pharmaceutical Organic Chemistry II – Theory	Employability
10	Physical Pharmaceutics I – Theory	Skill Development
11	Pharmaceutical Microbiology - Theory	Employability
12	Pharmaceutical Engineering – Theory	Skill Development
13	Pharmaceutical Organic Chemistry III— Theory	Employability
14	Medicinal Chemistry I – Theory	Employability
15	Physical Pharmaceutics II - Theory	Employability
16	Pharmacology I – Theory	Skill Development
17	Pharmacognosy and Phytochemistry I— Theory	Skill Development
18	Medicinal Chemistry II – Theory	Employability
19	Industrial Pharmacy I- Theory	Employability
20	Pharmacology II – Theory	Skill Development
21	Pharmacognosy and Phytochemistry II– Theory	Skill Development
22	Pharmaceutical Jurisprudence – Theory	Skill Development



23	Medicinal Chemistry III – Theory	Employability
24	Pharmacology III - Theory	Skill Development
25	Herbal Drug Technology - Theory	Employability
26	Biopharmaceutics and Pharmacokinetics – Theory	Employability
27	Pharmaceutical Biotechnology – Theory	Employability
28	Quality Assurance -Theory	Employability
29	Instrumental Methods of Analysis – Theory	Employability
30	Industrial Pharmacy II – Theory	Employability
31	Pharmacy Practice – Theory	Skill Development
32	Novel Drug Delivery System – Theory	Skill Development
33	Biostatistics and Research Methodology	Skill Development
34	Social and Preventive Pharmacy	Skill Development
35	Pharma Marketing Management	Employability
36	Pharmaceutical Regulatory Science	Employability
37	Pharmacovigilance	Employability
38	Quality Control and Standardization of Herbals	Employability
39	Computer Aided Drug Design	Employability
40	Cell and Molecular Biology	Skill Development
41	Cosmetic Science	Skill Development
42	Experimental Pharmacology	Employability
43	Advanced Instrumentation Techniques	Employability
44	Dietary Supplements and Nutraceuticals	Employability



Annexure-III List of New Courses

S. No.	Course Name	
1	Human Anatomy and Physiology I- Theory	
2	Pharmaceutical Analysis I – Theory	
3	Pharmaceutics I – Theory	
4	Pharmaceutical Inorganic Chemistry –Theory	
5	Human Anatomy and Physiology II – Theory	
6	Pharmaceutical Organic Chemistry I – Theory	
7	Biochemistry - Theory	
8	Pathophysiology - Theory	
9	Pharmaceutical Organic Chemistry II – Theory	
10	Physical Pharmaceutics I – Theory	
11	Pharmaceutical Microbiology – Theory	
12	Pharmaceutical Engineering – Theory	
13	Pharmaceutical Organic Chemistry III- Theory	
14	Medicinal Chemistry I – Theory	
15	Physical Pharmaceutics II – Theory	
16	Pharmacology I – Theory	
17	Pharmacognosy and Phytochemistry I- Theory	
18	Medicinal Chemistry II – Theory	
19	Industrial Pharmacyl- Theory	
20	Pharmacology II - Theory	
21	Pharmacognosy and Phytochemistry II- Theory	
22	Pharmaceutical Jurisprudence - Theory	
23	Medicinal Chemistry III – Theory	
24	Pharmacology III – Theory	
25	Herbal Drug Technology – Theory	
26	Biopharmaceutics and Pharmacokinetics – Theory	
27	Pharmaceutical Biotechnology - Theory	
28	Quality Assurance –Theory	
29	Instrumental Methods of Analysis – Theory	
30	Industrial Pharmacy-II – Theory	



31	Pharmacy Practice – Theory
32	Novel Drug Delivery System – Theory
33	Biostatistics and Research Methodology
34	Social and Preventive Pharmacy
35	Pharma Marketing Management
36	Pharmaceutical Regulatory Science
37	Pharmacovigilance
38	Quality Control and Standardization of Herbals
39	Computer Aided Drug Design
40	Cell and Molecular Biology
41	Cosmetic Science
42	Experimental Pharmacology
43	Advanced Instrumentation Techniques
44	Dietary Supplements and Nutraceuticals