

SCHOOL OF PHARMACY

PROGRAMME CODE : PY4A

PROGRAMME TITLE : BACHELOR OF PHARMACY (B. Pharm)

OBJECTIVES:

The programme has been developed to provide educational and personality development facilities for preparing young pharmacists for highly professional and top positions in drug and pharmaceutical industries. The curriculum is designed to enhance and provide updated information of theoretical as well as practical aspects of the pharmacy profession at graduate level.

Eligibility:

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 with 50%.

AGE LIMIT:

Candidate should complete the age of 17 years on or before 31st December of the year of admission. As per the directives of Government of Madhya Pradesh, there is no upper age limit for admission to various programmes.

ADMISSION PROCEDURE:

The admission to B. Pharm programme (First Semester of First year) will be done as per merit in the common entrance test (**Group A2**) conducted by Devi Ahilya Vishwavidyalaya, Indore. The Common Entrance Test will be conducted through Computer based examination.

SEATS: 60 (Sixty: Reservation as per State Government rules).

DURATION: Eight semesters (Four years)

DEVI AHILYA VISHWAVIDYALAYA, INDORE

Fee Structure per semester (2020-2024)

Sem.	Academic Fee (Rs.)	Development & Maintenance Fee (Rs.)	Student Services Fee (Rs.)		Exam Fee (Rs.)	Total Fee (Rs.)	
			Boys	Girls		Boys	Girls
First	17,500	17,500	3300	3111	2,500	40,800	40,611
Second	17,500	17,500	2911	2722	2,500	40,411	40,222
Third	17,500	17,500	3300	3111	2,500	40,800	40,611
Fourth	17,500	17,500	2911	2722	2,500	40,411	40,222
Fifth	17,500	17,500	3300	3111	2,500	40,800	40,611
Sixth	17,500	17,500	2911	2722	2,500	40,411	40,222
Seventh	17,500	17,500	3300	3111	2,500	40,800	40,611
Eighth	17,500	17,500	2911	2722	2,500	40,411	40,222

- Caution money (Refundable) of Rs. 4,000/- will be charged additionally in the First semester.
- Alumni Fee of Rs. 500/- will be charged extra in the first semester.
- If a student repeats a paper(s) in a semester, an additional fee of Rs. 500/- per paper shall be payable.
- For NRI/FN/PIO candidates, a fee of US\$ 3500 per annum shall be payable on yearly basis. They will have to pay a refundable deposit US\$ 500 once at the time of admission.
- Hostel fee and central library fee will be extra.

PROGRAMME STRUCTURE (2020-2024):

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 Project over the duration of eight semesters. The credits are distributed semester-wise as shown in following Table. 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.

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First Semester

Course code	Name of the course	No. of hours	Tutorials	Credit points
BP101T	Human Anatomy and Physiology I–Theory	3	1	4
BP102T	Pharmaceutical Analysis I – Theory	3	1	4
BP103T	Pharmaceutics I – Theory	3	1	4
BP104T	Pharmaceutical Inorganic Chemistry – Theory	3	1	4
BP105T	Communication skills–Theory	2	-	2
BP106RBT	Remedial Biology	2	-	2
BP106RMT	Remedial Mathematics – Theory			
BP107P	Human Anatomy and Physiology – Practical	4	-	2
BP108P	Pharmaceutical Analysis I – Practical	4	-	2
BP109P	Pharmaceutics I – Practical	4	-	2
BP110P	Pharmaceutical Inorganic Chemistry – Practical	4	-	2
BP111P	Communication skills – Practical	2	-	1
BP112RBP	Remedial Biology – Practical	2	-	1
Total		32/34^{\$}/36[#]	4	27/29^{\$}/30[#]

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

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

Second Semester

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

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Third Semester

Course code	Name of the course	No. of hours	Tutorial	Credit 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	-	2
BP307P	Pharmaceutical Microbiology – Practical	4	-	2
BP 308P	Pharmaceutical Engineering –Practical	4	-	2
Total		28	4	24

Fourth Semester

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

Fifth Semester

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP502T	Industrial Pharmacy I– Theory	3	1	4
BP503T	Pharmacology II – Theory	3	1	4
BP504T	Pharmacognosy II – Theory	3	1	4
BP505Y	Pharmaceutical Jurisprudence – Theory	3	1	4
BP506P	Industrial Pharmacy I– Practical	4	-	2
BP507P	Pharmacology II – Practical	4	-	2
BP 508P	Pharmacognosy II – Practical	4	-	2
Total		27	5	26

Sixth Semester

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Course code	Name of the course	No. of hours	Tutorial	Credit points
BP601T	Medicinal Chemistry III – Theory	3	1	4
BP602T	Pharmacology III – Theory	3	1	4
BP603T	Herbal Drug Technology – Theory	3	1	4
BP604T	Biopharmaceutics and Pharmacokinetics – Theory	3	1	4
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

Seventh Semester

Course code	Name of the course	No. of hours	Tutorial	Credit points
BP701T	Instrumental Methods of Analysis – Theory	3	1	4
BP702T	Industrial Pharmacy II – 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

Eighth Semester

Course code	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	3+3	1+1	4+4
BP804ET	Pharmaceutical Regulatory Science			
BP805ET	Pharmacovigilance			
BP806ET	Quality Control and Standardization of Herbals			
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

Programme Outcomes:

Pharmacy Knowledge and understanding: Provide basic knowledge and understanding of the principles in drug discovery, formulation, pharmacological evaluation, sophisticated instruments and their applications in the area of Pharmaceutical Sciences and Technology.

Technical Skills: Provides in depth knowledge on usage of various equipments and different kinds of simulation software to perform experiments on synthesis, drug design, pharmaceutical analysis, pharmacological evaluation and formulation development.

Modern tool usage: Enables to understand techniques, models, and software for prediction, interpretation of data and analysis of data generated in pharmaceutical processes like formulation, quality assurance, quality control, etc.

Research and Development: Provides an in depth knowledge to identifying a problem, critical thinking, analysis and provide rational solutions in different disciplines of Pharmaceutical Sciences and Technology.

Provides practical based education to apply the concept of manufacturing, formulation, pharmaceutical analysis, drug design, medicinal chemistry and quality control in the drug discovery and development of various pharmaceutical and cosmetic products.

Lifelong Learning: Inculcate an aptitude for continuous learning and professional development with ability to engage in pharmacy practice and health education programs. Develop problem-solving skills and aptitude to participate and succeed in competitive examinations.

Communication skills: Enables effective oral and written communication on health care issues, research and development and other Pharmaceutical problems.

Patient counseling and Pharmaceutical Care: Provide an aptitude to promote health awareness and disease prevention. Provides knowledge to comprehend medical prescription, perform patient counseling and dispensing of drugs in Pharmacy practice.

Ethics: Follow the code of ethics and commit to professional values, responsibilities, and norms of the Pharmacy practice.

Invention and Entrepreneurship: Provides an ability to implement the knowledge to execute the responsibilities successfully towards developing expertise, to grow as an entrepreneur and serve the needs of industry and academia.

Programme Specific Outcomes:

1. Understanding of basic principles of Pharmaceutical Chemistry, Pharmaceutics, Pharmacology and Pharmacognosy for drug discovery and formulation development.
2. Understanding of the formulation parameters in manufacturing of a dosage form, storage, packaging and dispensing of dosage forms.
3. Understanding of basics principles for drug analysis through conventional methods and modern sophisticated instruments.
4. Understanding of drug chemistry and its structure for synthesis of drug and drug designing using modern software.
5. Understanding of crude drug, its identification, extraction and purification for its medicinal value
6. Understanding of pharmacological action of drugs and their evaluation for their therapeutic effectiveness.
7. Understanding of documentation, quality control and quality assurance of all the processes and pharmaceutical formulations.
8. Understanding of biostatistics, novel drug delivery systems, molecular modeling, pharmacovigilance, Pharma management etc as per the need of industry and future prospects.