

COURSE HANDOUT
COMPUTER APPLICATIONS IN PHARMACY (PRACTICAL)
COURSE CODE: BP210P

VISION

Train the minds to think logically and become a success

MISSION

To Develop inventive, pioneering research & high-quality technical education

PROGRAMME EDUCATIONAL OBJECTIVES

- PEO 1:** To produce graduates with sound theoretical knowledge and technical skills required for career opportunities in various domains.
- PEO 2:** To incite the students towards research and to address the challenges with their innovative Contributions for the benefit of mankind.
- PEO 3:** To bring forth a quality professional equipped with technological advances to adapt easily to changes in the ever-evolving pharma and allied industry, hospital and clinical pharmacy setup, pharma retailing and distribution, and governmental and health agencies.
- PEO 4:** To engage graduates in professional ethical practices in a multidisciplinary environment, while contributing to organization through leadership and building team spirit.
- PEO 5:** Pharmacists can become lifelong learners, absorb new technologies, and then offer leadership roles in society.

Programme Name	Bachelor of Pharmacy (B. Pharmacy)
Course Name	Computer Applications in Pharmacy (Practical)
Course Code	BP210P
Session	
Semester	II
Labs (Per Week)	1 (0-0-4)
Course Credit	2
Course Coordinator Name	

1. Scope of the Course:

This subject is designed to impart practical knowledge that deals with the introduction of databases, Database Management systems, computer applications in clinical studies, and the use of databases and utilization of MS access in the field of pharmacy.

2. Course Outcomes (COs):

- 210.1. Design and create a questionnaire using a word processing package to gather disease-related information.
- 210.2. Acquire proficiency in HTML to develop web pages and retrieve drug information, including adverse effects, using online tools.
- 210.3. Develop in-depth understanding of mailing labels in MS Word and create a patient database in MS Access. Design forms to manage patient records.
- 210.4. Generate and print reports from the patient database using MS Access.
- 210.5. Develop the ability to export tables, queries, forms, and reports to both web pages and XML formats.

3. Reference Books:

- RB.1 Kasturi K, Lakshmi KS. Bioinformatics a Practical Manual. Pharma Med Press, Hyderabad.
- RB.2 Shah SK, Arora V, Goyal M. Theory Cum Practical: Computer Applications in Pharmacy. PV books, Jalander.

4. Other Readings & Relevant Websites:

Sr. No.	Link to Journals, Magazines, Websites, and Research Papers
1	https://www.carewellpharma.in /
2	https://pharmanotes.org /

5. Lab Plan:

Sr. No.	Experiment	Dates (tentative)			
		Section A		Section B	
		Batch A	Batch B	Batch A	Batch B
01	Design a questionnaire using a word processing package to gather information about a particular disease.	29.07.24	01.08.24	30.07.24	02.08.24
02	Create a HTML web page to show personal information.	29.07.24	01.08.24	30.07.24	02.08.24
03	Retrieve the information of a drug and its adverse effects using online tools	05.08.24	08.08.24	06.08.24	09.08.24
04	Creating mailing labels Using Label Wizard, generating label in MS WORD	05.08.24	08.08.24	06.08.24	09.08.24
05	Create a database in MS Access to store the patient information with the required fields Using access	12.08.24	15.08.24	13.08.24	16.08.24
06	Design a form in MS Access to view, add, delete and modify the patient record in the database	12.08.24	15.08.24	13.08.24	16.08.24
07	Generating report and printing the reports from patient database	19.08.24	22.08.24	20.08.24	23.08.24
08	Creating invoice table using – MS Access	26.08.24	29.08.24	27.08.24	30.08.24
09	Drug information storage and retrieval using MS Access	02.09.24	05.09.24	03.09.24	06.09.24
10	Creating and working with queries in MS Access	23.09.24	26.09.24	24.09.24	13.09.24
11	Exporting Tables, Queries, Forms, and Reports to web pages	30.09.24	03.10.24	01.10.24	20.09.24
12	Exporting Tables, Queries, Forms, and Reports to XML pages	07.10.24	10.10.24	08.10.24	27.09.24
13	Create a ppt on any given topic using insert, transitions, and animation toolbar. (CBS)	14.10.24	17.10.24	15.10.24	04.10.24
14	Calculate the % cumulative drug release and assess the mathematical modeling for drug release on MS-Excel. (CBS)	21.10.24	24.10.24	22.10.24	11.10.24

6. Content Beyond Syllabus (CBS):

Sr. No.	Topics	PO (Annexure 1)
1.	Calculate the % cumulative drug release and assess the mathematical modeling for drug release on MS-Excel.	PO1, PO3, PO4, PO6, PO8
2.	Create a ppt on any given topic using insert, transitions, and animation toolbar.	PO1, PO3, PO4, PO6, PO7, PO8, PO9, PO11
3.	To Fill up IPC's ADR Reporting Form and perform causality assessments using various scales (Geriatric patient- case).	PO1, PO3, PO4, PO6, PO7, PO8, PO9, PO11
4.	To retrieve a nucleotide sequence of Homo sapiens prostaglandinenoperoxide synthase 1.	PO1, PO3, PO4, PO6, PO7, PO8, PO9, PO11

7. Evaluation Scheme:

The marks allocated for the continuous mode of internal assessment shall be awarded for attendance, practical records, regular viva voce, etc. Two practical sessional exams shall be conducted during mid of the semester. The average marks of the two practical sessional exams shall be computed for internal assessment. A practical sessional exam shall be conducted for 40 marks and shall be computed for 10 marks. Weightage for various evaluation components is as below:

Sr. No.	Evaluation Component	Weightage
1	Internal Assessment	
	1. Continuous Mode	05
	2. Practical Sessional Exams	10
2	End Semester Practical Exam	35
	Total	50

As per PCI and University guidelines, minimum 75% attendance is required to become eligible for appearing in the End Semester Practical Examination.

This document is approved by:

Designation	Name	Signature
Course Coordinator		
HOD		
Principal		

ANNEXURE I: PROGRAM OUTCOMES

- Pharmacy knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
- Planning abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
- Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
- Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and wellbeing.
- Professional identity:** Understand, analyze and communicate the value of their professional roles in society (e.g., health care professionals, promoters of health, educators, managers, employers, employees).
- Pharmaceutical ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
- Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
- The pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
- Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.