



VIDHYADEEP UNIVERSITY
VIDHYADEEP INSTITUTE OF PHARMACY, ANITA, SURAT



B. PHARMACY SEMESTER: II

Subject Name: COMPUTER APPLICATIONS IN PHARMACY (NUE)

Subject Code: BP204TP

Scope: This subject deals with the introduction Database, Database Management system, computer application in clinical studies and use of databases.

COU Course Outcomes: Upon completion of this course the student should be able to

| CO | STATEMENTS |
|--------|---|
| C111.1 | To calculate binary, octal, decimal, hexadecimal number system for computer |
| C111.2 | To plan and manage computer system in hospital |
| C111.3 | To enumerate markup languages and pharmacy database management system |
| C111.4 | To categorize data management system of various hospital departments |
| C111.5 | To recognize use of computer in bioinformatics system |
| C111.6 | To demonstrate computer use pharmaceutical analysis |

Teaching Scheme and Examination Scheme:

| Teaching Scheme (hr/ Week) | | | | Evaluation Scheme (NON-UNI EXAM) | | | |
|----------------------------|----------|-----------|-------|----------------------------------|----------|----------------|----------|
| Theory | Tutorial | Practical | Total | Internal | External | Internal | External |
| | | | | Theory Exam | | Practical Exam | |
| 2 | 0 | 2 | 4 | 15 | 35 | 15 | 35 |

| Sr No | Course content | (hr) |
|-------|---|------|
| 1 | Number system: Binary number system, Decimal number system, Octal number system, Hexadecimal number systems, conversion decimal to binary, binary to decimal, octal to binary etc, binary addition, binary subtraction – One's complement, Two's complement method, binary multiplication, binary division. Concept of Information Systems and Software: Information gathering, requirement and feasibility analysis, data flow diagrams, process specifications, input/output design, process life cycle, planning and managing the project | 06 |
| 2 | Web technologies: Introduction to HTML, XML, CSS and Programming languages, introduction to web servers and Server Products. Introduction to databases, MYSQL, MS ACCESS, Pharmacy Drug database | 06 |
| 3 | Application of computers in Pharmacy – Drug information storage and retrieval, Pharmacokinetics, Mathematical model in Drug design, Hospital and Clinical Pharmacy, Electronic Prescribing and discharge (EP) systems, barcode medicine identification and automated dispensing of drugs, mobile technology and adherence monitoring Diagnostic System, Lab-diagnostic System, Patient Monitoring System, Pharma Information System | 06 |
| 4 | Bioinformatics: Introduction, Objective of Bioinformatics, Bioinformatics Databases, Concept of | 06 |

| | | |
|---|---|-----------|
| | Bioinformatics, Impact of Bioinformatics in Vaccine Discovery 6 5. Computers as data analysis | |
| 5 | Computers as Aata Analysis in Preclinical Development: Chromatographic dada analysis (CDS), Laboratory Information management System (LIMS) and Text Information Management System(TIMs) | 06 |

PRACTICAL: COMPUTER APPLICATIONS IN PHARMACY(NUE)

Subject Code: BP204TP (PRACTICAL)

Practical List:

1. Design a questionnaire using a word processing package to gather information about a particular disease.
2. Create a HTML web page to show personal information.
3. Retrieve the information of a drug and its adverse effects using online tools.
4. Creating mailing labels Using Label Wizard, generating label in MS WORD.
5. Create a database in MS Access to store the patient information with the required fields Using access
6. Design a form in MS Access to view, add, delete and modify the patient record in the database.
7. Generating report and printing the report from patient database.
8. Creating invoice table using – MS Access.
9. Drug information storage and retrieval using MS Access.
10. Creating and working with queries in MS Access.
11. Exporting Tables, Queries, Forms and Reports to web pages.
12. Exporting Tables, Queries, Forms and Reports to XML pages.

Recommended Books (Latest Editions):

1. Computer Application in Pharmacy – William E.Fassett –Lea and Febiger, 600 South Washington Square, USA, (215) 922-1330.
2. Computer Application in Pharmaceutical Research and Development –Sean Ekins – Wiley-Interscience, A John Willey and Sons, INC., Publication, USA.
3. Bioinformatics (Concept, Skills and Applications) – S.C. Rastogi-CBS Publishers and Distributors, 4596/1- A, 11 Darya Gani, New Delhi – 110 002(INDIA).
4. Microsoft office Access - 2003, Application Development Using VBA, SQL Server, DAP and Infopath – Cary N.Prague – Wiley Dreamtech India (P) Ltd., 4435/7, Ansari Road, Daryagani, New Delhi – 110002.