

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. SEMESTER - I BASICS OF COMPUTER APPLICATIONS

Subject Code: 2210005
Theory (2 Hours / Week; 2 Credits)

| Sr. No. | Course Content | Hours |
|---------|---|-------|
| 1 | Computer Fundamentals Definition, characteristics, history, computer terminology, computer organization, input & output devices, storage devices (including latest devices), classifications of computers (including current computer systems), application of computers in pharmacy, introduction to computer virus, problems associated with virus infection and its remedies. | 02 |
| 2 | Operating Systems Definition, functions of an operating system, types of operating systems and their characteristics, difference between operating system and application software. <i>Windows Operating Systems:</i> Desktop, start-menu, components of control panel, accessories, components of my computer and my documents, recycle bin, printer and mouse settings, maximizing, minimizing, restoring and closing of windows, windows explorer, taskbar and its functions. Different file formats, various types of files, file extension, opening files by various programs | 05 |
| 3 | Basics of MS Word and its applications Word Essentials, Parts of MS Word screen, Typing and Editing, Finding and Replacing, Autocorrect and Auto text, Reusing Text and Graphics, use of spell-check & grammar, thesaurus and scientific symbols, viewing of document by various ways, Editing Tools, Text Formatting, Text Character, Formatting Paragraphs, Formatting and Sorting Lists, Page Design and Layout, Page Margins, Page Numbers, Columns, Working with Tables, Creating and formatting of tables and sorting, merging of data in tables etc., inserting, deleting and sizing of rows and columns in tables, Opening, Saving and Protecting Documents, Locating and Managing Documents, Printing. | 06 |
| 4 | Basics of MS Excel and its applications Introduction to EXCEL worksheet, calculations in EXCEL, preparation of templates for application in pharmaceutical chemistry, pharmaceutical technology, pharmacology and pharmacognosy (statistical treatment of data for Beers Lamberts curve, solution of problems based on physical chemistry, stability study, area under the curve, etc.) Special attention must be given to arithmetic expressions. Library functions such as logarithm, square root, sum, average, standard deviation, t-test, F-test, Chi-square test, ANOVA etc. Drawing graphs in EXCEL- line graph, histogram and pie-chart. Editing chart features such as annotation, labeling of axis, changing legends etc. | 06 |
| 5 | MS PowerPoint Creating and viewing a presentation, adding animations and managing slides etc. | 02 |

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| 6 | Internet and its applications Internet – Basic terms, software and hardware requirement for internet, web browsers, internet tools, study of pharmaceutical web sites, online journals and search engines, searching through pharmaceutical databases, study of patent websites. Use of emails, mail merge and application of address book. | 05 |
| 7 | Introduction to the following software MS Paint, MS Access, Outlook, Adobe acrobat reader, Adobe Professional, Chemdraw, ISIS Draw, Nero Burning room | 04 |

BASICS OF COMPUTER APPLICATIONS

Subject Code: 22100P5

Practical (3 Hours / Week; 3 Credits)

| Sr. No. | Course Contents |
|---------|---|
| | Practical exercises should be based on theoretical topics. The practical should broadly cover the following: |
| 1 | Exercises on word processing to execute various commands in preparing and editing documents. |
| 2 | Preparation of documents and implementing various formatting parameters in MS Word. |
| 3 | Working with footnotes and endnotes, referencing documents |
| 4 | Working with auto-indexing, table and figure numbering |
| 5 | Preparing and editing worksheets in MS EXCEL, Inserting formulas for different functions in MS EXCEL like sum, average, standard deviation, logarithm, square root etc. |
| 6 | Drawing various charts using pharmaceutical experimental data |
| 7 | Preparation of power point presentation with animation |
| 8 | Working with internet browsing and using search engines |
| 9 | E-mailing using address book and applying mail merge |
| 10 | Surfing various pharmaceutical web sites, online journals and patent search |

Recommended Books:

1. Taxali R.K., P.C. Software for Windows 98 made simple – 8th Edition – 2002 – Tata Mc, New Delhi.
2. WORD 2000, Guy Hart Davis, BPB Publications, New Delhi, 1999
3. MS Office: Step by Step, Joyce Cox, Prentice Hall of India, New Delhi, 2007
4. Accessing and Analysing Data with MS EXCEL, Cornell, Prentice Hall of India, New Delhi, 2007.
5. Manuals available with the software