

Skill Enhancement Course
Syllabi of B.Sc. Medical & Non-Medical (Physics, Chemistry and
Mathematics) under CBCS
1st Semester
(w.e.f. 2021-22)

Paper Code	Paper Name	Type of Course	Credits (Theory/ Practical)	Contact Hours (Theory/ Practical)	Marks (External + Internal)
20USECCS102	Basics of Computer	Skill Enhancement	2	2	40+10=50
20USECCS107	Basics of Computer Lab (Based on 20USECCS102)		1	2	40+10=50

20USECCS102
Basics of Computer

Maximum Marks-50
 External Examination-40
 Internal Assessment-10
 Max. Time- 3 hrs.

Note: There shall be nine questions in all. Question no. 1 shall be compulsory, consisting of eight short answer type questions covering the entire syllabus. Two questions will be asked from each unit. Student will have to attempt one question from each unit. Each question shall carry equal marks.

Objectives:

1. To get the basic concepts of Computers.
2. To get the functional knowledge about PC hardware, operations and concepts.
3. To understand the functional units of a standard PC and it's working.

Unit-I

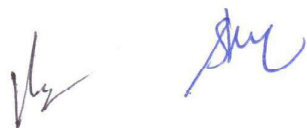
Computer Fundamentals: Generations of Computers, Definition, Block Diagram along with its components, characteristics & classification of computers, Limitations of Computers, Human-Being VS Computer, Applications of computers in various fields.

Number Systems: Definition of Number system, necessity of binary number system, binary, decimal, octal and hexadecimal number system, interconversion of numbers.

Unit-II

Input/Output Devices, Hard-copy devices, Memory & Mass Storage Devices: Characteristics of memory systems, types of memory, RAM, ROM, magnetic disks - floppy disk, hard-disk; optical disks; Magnetic tapes; Concepts of Virtual and Cache memory.

Software Concepts: Introduction, types of software - System & Application software; Overview of operating system: Definition, functions of operating system, concept of multiprogramming, multitasking, multithreading, multiprocessing, time-sharing, real time, single-user & multi-user operating system.



Unit-III

Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN), Network topologies, Modes of data transmission, Forms of data transmission, Transmission channels(media).

Introduction to internet and its uses, Applications of internet, Hardware and Software requirements for internet, Intranet, Applications of intranet.

Computer Security: Password Policies, Viruses, types of viruses, anti-virus software.

Unit-IV

MS-Word: - Introduction to word processing interface, Toolbars, Menus, Creating & Editing Document, Formatting Document, Finding and replacing text, Auto Text, Auto Correct, Spelling and Grammar Tool, Format painter, Header and footer, Macro, Mail Merge.

MS-Excel-Introduction to MS-Excel, Cell, cell address, Creating & Editing Worksheet, Formatting and Essential Operations, Moving and copying data in excel, Formulas, MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation, Sorting, Filtering, Validation, Conditional formatting.

MS-PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Animations and Sounds, Inserting Animated Pictures or Accessing through Object.

Course Outcome: After completion of course, the students will be able to:

1. Learn the fundamental concepts of Computer and its functional components.
2. Study the concepts of Hardware and Software.
3. Take the overview of Networking and Internet terminologies.
4. Learn to work in a Word Processor
5. Analyse the data in a Spreadsheet
6. Create a powerful PowerPoint Presentation.

Suggested Readings:

a) Text Book:

1. Gill, Nasib S.: Essentials of Computer and Network Technology, Khanna Book Publishing Co., New Delhi.
2. Gill Nasib Singh: Computing Fundamentals and Programming in C, Khanna Books Publishing Co., New Delhi.
3. Chhillar, Rajender S.: Application of IT in Business, Ramesh Publishers, Jaipur.

b) Reference Books:

1. Donald Sanders: Computers Today, McGraw-Hill Publishers.
2. Davis: Introduction to Computers, McGraw-Hill Publishers.
3. V. Rajaraman: Fundamental of Computers, Prentice-Hall India Ltd., New Delhi.
4. Learning MS-Office2000 by R Bangia (Khanna Book Pub)

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20USECCS107

Basics of Computer Lab (Based on 20USECCS102)

Maximum Marks-50
External Examination-40
Internal Assessment-10
Max. Time- 3 hrs.

Note: - Every student will maintain practical record of programs done during practical lab in a file. Examination will be conducted through a question paper set jointly by the external and internal examiners. The question paper will consist of questions based on the list of practicals as given under. An examinee will be asked to write the programs and run on computer. Evaluation will be made on the basis of the examinee's performance in written solutions and presentation with viva-voce and practical record.

Practical Examination will be conducted externally as per the following distribution of marks:

Writing solutions of problems and executing on the Computer:	20 marks.
Presentation & Viva voce:	10 marks.
Practical record:	10 marks.
Internal Assessment: marks)	10 marks (Attendance=5 marks, Assignment=5

List of Practical:

1. Create a document in MS Word and apply formatting on text.
2. Create a list of 10 best friends. Use Mail Merge feature of MS-WORD to create a Thank You letter for each of your friends from the above two files.
3. Write a macro that is run using the shortcut Ctrl+F for formatting the files.
4. Create a Microsoft word document with the following contents of format?
5. -Insert a table giving number of theory and practical sessions per block.
-Demonstrate the Auto Text feature of MS-WORD.
6. Create a document using header footer.
7. Create an Excel Workbook and write all the steps to done with following instructions.
 - a) Save this file with name Myexcelfile.
 - b) Rename sheet1 with another name: Example.
 - c) Move sheet2 to another excel workbook with name abc.xls.



- d) Increase the Cell Row height=12.65 and width=9.36.
 - e) How to use sort and filter feature.
 - g) How to use conditional formatting? Give at least three names of conditional formatting.
8. Create a table of student's data with marks and calculate total marks of all mstudents, percentage of marks of all subjects of any student.
9. Create a power point presentation with name my ppt. Write the steps for following questions:
- a) Insert a movie clip in slide1.
 - b) Insert an audio clip in slide2.
 - c) Insert a table with five rows and six columns in slide3.
 - d) Insert a chart in slide4 .
 - e) Insert two shapes in a slide and group those shapes.
10. Create a power point presentation with name my ppt1. Write the steps for following questions:
- a) Insert a text "Animation1" in slide1 and animate it with fly in.
 - b) Insert a text "Animation2" in slide2 and animate it with fly out.
 - c) Add four more slides to the presentation my ppt1 and apply slide transition to it.
 - d) Apply slide design.
 - e) Change slide background with colour, gradient, texture, pattern, picture?

