C. U. SHAH UNIVERSITY

FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCES

COURSE: B.Sc.   **SEMESTER: II**

SUBJECT NAME: Computational Skills   **SUBJECT CODE: 4SC02COS2**

Teaching & Evaluation Scheme:-

Teaching hours/week				Credit	Evaluation Scheme/semester							
					Theory				Practical			Total Marks
Th	Tu	Pr	Total		Sessional Exam		University Exam		Internal		University	
					Marks	Hrs	Marks	Hrs	Pr	TW		
2	0	2	4	3	20	1.0	50	2.0	--	--	30	100

Objectives:-Computer knowledge is very essential in each and every department. The course aims toprovide ample computer knowledge to students in such a manner that it is useful in theirfuture studies.

Prerequisites:-Student should have basic knowledge of computers, which would enablethem to learn the course in a more effective manner.

Course outline:-

Sr. No.	Course Contents	Hours
1	**Basic fundamentals of computer:** Definition, characteristics, history, computer terminology, computerorganization, input and output devices, storage devices (including latestdevices), classifications of computers (including current computersystems), application of computers in science, introduction to computervirus, problems associated with virus infection and its remedies	04
2	**Windows Basic introduction**: **Operating Systems:** Definition, functions of an operating system, types of operating systemsand their characteristics, difference between operating system andapplication Software.Basic Dos commands both internal and external.	04
3	**MS Word:** Word Essentials, the word workplace, Parts of MS Word screen, Typingand Editing, Finding and Replacing, Autocorrect and Auto text, Reusing Text and Graphics, use of spell-check & grammar, thesaurus and scientificsymbols, viewing of document by various ways Editing Tools, Formatting Text Formatting Text Character, Formatting Paragraphs, Formatting and Sorting Lists, Page Design and Layout, Page Setup : Margins, Page Numbers, and Other Items, Newspaper -style Columns, Working with Tables Creating and formatting of tables and sorting, merging etc. of datain tables. Inserting, deleting and sizing of rows and columns in tables, Opening, Saving and Protecting Documents, locating and Managing Documents Printing, Assembling Documents with Mail Merge, references.	09

4	**Ms Excel:** Introduction to EXCEL worksheet, calculations in EXCEL. Hierarchy ofoperation, library functions such as logarithm, square root, standarddeviation, sum, average, t-test, ANOVA etc. Drawing graphs in EXCELline graph, histogram, pie-chart.Editing chart features such as annotation, labelling of axis, changinglegends etc.	09
5	**MS PowerPoint:** Creating and viewing a presentation, adding animations and managingslides etc.	04
6	**Networking and Internet:** Computer networks, networking technology, components of network. Internet-Basic terms, software and hardware requirement for internet,process of internetworking, internet tools, Email- components and working, Study of biotechnological/microbiological/biochemistry web sites andsearch engines, searching through data bases, study of patent websites.	05
7	**Introduction to the following software:** MS Paint, MS Access, Outlook, Adobe acrobat reader, Adobe Professional,Chemdraw, ISIS Draw, Nero Burning ROM.	04
8	**Basic Biostatistics:** Introduction, Mean, Median; Standard error, Standard deviation, Variance.	06

Learning Outcomes:-The course aims at providing the students ample knowledge of computational skills whichshall be of use in their academic as well as professional life.

Books Recommended:-

1. 'P.C. Software for Windows 98 made simple', **R. K. Texali**, 8thEd., *Tata McGrew Hill* (2002).
2. 'WORD 2000', **Guy Hart Davis**, *BPB Publications* (1999).
3. 'MS Office: Step by Step', **Joyce Cox**, *Prentice Hall of India* (2007).
4. 'Accessing and Analysing Data with MS EXCEL', **Cornell**, *Prentice Hall of India* (2007).
5. Manuals available with the software.

E-Resources:

1. http://www.gcflearnfree.org
2. http://www.gcflearnfree.org
3. http://www.electricteacher.com/tutorials.htm
4. http://publiclibrary.cc/computerinternettutorial.htm
5. http://www.comptechdoc.org/basic/basictut/