



UNDER-GRADUATE SKILL ENHANCEMENT COURSE, COOCH BEHAR PANCHANAN BARMA UNIVERSITY



THE PREAMBLE:

In this modern era of Digital Technology, higher education plays a pivotal role in bridging the gap between what exists in nature, what is produced by mankind and people's access to what is required for survival and development. The under-graduate program curriculum, prepared in accordance to the National Education Policy 2020, provides ample scope to the students to adopt multi-dimensional skills, owing to the inter-disciplinary facet indicated in the NEP, the structural and content-based changes made in the Curriculum would certainly bring in an interface of the inventions and discoveries contributed by science disciplines, the social, cultural, ethical and economical theories and practices indicated by the arts and humanities, their market and commercial viability and implications for overall economic and ecological development.

• INTRODUCTION:

The introduction of the National Education Policy (NEP) 2020 has transformed the administrative structure of the educational system in India. It focuses on skill development in order to help students succeed in life. The University recommended an inclusive list of various skill development courses like Spoken English; Soft Skill; Basic Computing; Video & Photography Editing; Professional Ethics; Medical Pathology; Aquarium Fish Keeping and Management; Poultry Breeding; Tourism; Wild-life Conservation & Management; Bhawaiya; Folk & Creative Dance; Tailoring & Designing; Beauty & Wellness; Electronic Repairing; Baking; Gardening; Organic Farming; Proof-Reading (Bengali); Recitation; Theatre; Stress Counseling & Management; GST –Filling; Hospitality Management; Office Administration; Proof-Reading (English); Interior Designing; Green Chemistry for skill enhancement initiative of the students keeping in mind the demand of the market as well as to nurture the art and cultural potentials of the students.

Keeping in mind the NEP 2020, under-graduate programs with continuous revision of the curriculum will develop the creative potential of each individual and create new career growth opportunities. The Bachelor Degree programs of Cooch Behar PanchananBarmaUniversity adapted as per the recommendations of NEP 2020 is of either three or four-years duration with multiple entry/exit options within the period with appropriate certification/diploma/degree.

Introducing holistic and multi-disciplinary under-graduate education that would develop all capacities of human beings- intellectual, aesthetic, social, physical, emotional, ethical in an integrated manner.

**COOCH BEHAR PANCHANAN BARMA UNIVERSITY,
COOCH BEHAR- 736101, WEST BENGAL, INDIA**

Structure of Skill Enhancement Course on Basic Computing

Title of the Course: Basic Computing

YEAR	SEMESTER	PAPER	TITLE	CREDIT
1stYear	Semester 1	SEC 1	Computer Fundamentals and IT Workshop	3
1stYear	Semester 2	SEC 2	Office Automation Tools	3
2nd Year	Semester 3	SEC 3	Web Technology and Web Designing	3

Detailed Syllabus of Basic Computing 1st SEMESTER

Title of the Course	: Computer Fundamentals and IT Workshop
Course Code	:
Nature of the Course	: SEC - 1
Course Credit	: 03 Credits
Distribution of Marks	:

UNITS	COURSE CONTENT	L	T	P	TOTAL HOURS
I	Computer Basics: What is Computer, Basic Applications of Computer; Components of Computer System, Central Processing Unit (CPU), VDU, Keyboard and Mouse, Other input/output Devices, Computer Memory, Concepts of Hardware and Software; Concept of Computing, Data and Information; Applications of Information Electronics & Communication Technology (IECT); Connecting keyboard, mouse, monitor and printer to CPU and checking power supply.	7		4	11
II	Operating System: What is an Operating System; Basics of Popular Operating Systems; The User Interface, Using Mouse; Using right Button of the Mouse and Moving Icons on the screen, Use of Common Icons, Status Bar, Using Menu and Menu-selection, Running an Application, Viewing of File, Folders and Directories, Creating and Renaming of files and folders, Opening and closing of different Windows; Using help; Creating Short cuts, Basics of O.S Setup; Common utilities.	4		8	12
III	Introduction to DOS: Files, Directories, Drives, using extensions and wildcards, Basic DOS commands: (CLS, DIR, COPY, CMD, CD, MKDIR, DEL, TIME, REN), Booting, warm boot, cold boot, concept of BIOS Algorithm, Algorithm for simple problems, Flowchart: Components of a flowchart, Drawing flowcharts for simple problems, Structure of a program, types of languages: unstructured, structured, procedure oriented, object oriented	6		6	12
IV	Networking Basics: Introduction; Types of network: LAN, MAN, WAN; Concept of Addressing scheme; IP; IP setup in a workstation; DHCP; Wifi	4		6	10
	TOTAL	21		24	45

Where, L: Lecture, T: Tutorial, P: Practical

Suggested Readings

1. "Computer Fundamentals: Architecture and Organization", B. Ram, New Age International Publisher
2. "Computer Fundamentals", P. K. Sinha, BPB Publications
3. "Fundamentals of Computers", V. Rajaraman&NeeharikaAdabala, Prentice Hall India Learning Private Limited
4. "Data Communication & Networking", BA Forouzan, McGraw Hill
5. Introduction to Computers, Peter Norton, McGraw Hill
6. MOS study guide for word, Excel, Powerpoint& Outlook Exams, Joan Lambert, Joyce Cox,

- PHI.
7. Introduction to Information Technology, ITL Education Solutions limited, Pearson Education.
 8. Networking your computers and devices, Rusen, PHI
 9. Trouble shooting, Maintaining & Repairing PCs, Bigelows, TMH

Recommended Experiment:

Preparing your Computer

Task 1:

Learn about Computer: Identify the internal parts of a computer, and its peripherals. Represent the same in the form of diagrams including Block diagram of a computer. Write specifications for each part of a computer including peripherals and specification of Desktop computer. Submit it in the form of a report.

Task 2:

Assembling a Computer: Disassemble and assemble the PC back to working condition. Students should be able to trouble shoot the computer and identify working and non-working parts. Student should identify the problem correctly by various methods

Task 3:

Install Operating system: Student should install Linux on the computer. Student may install another operating system (including proprietary software) and make the system dual boot or multi boot. Students should record the entire installation process.

Task 4:

Operating system features: Students should record the various features that are supported by the operating system(s) installed. They have to submit a report on it. Students should be able to access CD/DVD drives, write CD/DVDs, access pen drives, print files, etc. Students should install new application software and record the installation process.

Networking and Internet

Task 5:

Networking: Students should connect two computers directly using a cable or wireless connectivity and share information. Students should connect two or more computers using switch/hub and share information. Crimping activity, logical configuration etc. should be done by the student. The entire process has to be documented.

Task 6:

Antivirus: Students should download freely available Antivirus software, install it and use it to check for threats to the computer being used. Students should submit information about the features of the antivirus used, installation process, about virus definitions, virus engine etc.

Productivity tools

DETAILED SYLLABUS OF Basic Computing 2nd SEMESTER

Course Title : Office Automation Tools
 Course Code :
 Nature of the Course : SEC - 2
 Course Credit : 03 Credits
 Distribution of Marks :

UNITS	COURSE CONTENTS	L	T	P	TOTAL HOURS
I	Understanding Word Processing: Word Processing Basics; Opening and Closing of documents; Text creation and Manipulation; Formatting of text; Table handling; Spell check, language setting and thesaurus; Printing of word document.	05		10	15
II	Using Spread Sheet: Basics of Spreadsheet; Manipulation of cells; Formulas and Functions; Editing of Spread Sheet, printing of Spread Sheet.	05		10	15
III	Making small presentation: Basics of presentation software; Creating Presentation; Preparation and Presentation of Slides; Slide Show; Taking printouts of presentation / handouts.	05		10	15
	Total	15		30	45

Where, L=Lecture, T=Tutorial, P=Practical

Suggested Software packages: MS-Office Software

Reference Books:-

1. Microsoft Office 2016 A Beginner's Guide to Microsoft Office, Author: Matthew Conner
2. Microsoft Office 2019 Step by Step, Author: Joan Lambert, Curtis Frye
3. Office 365 All-in-One For Dummies, Author: Peter Weverka, Timothy L. Warner

Recommended Experiment:

1. Create a **telephone directory**.
 - The heading should be 16-point Arial Font in bold
 - The rest of the document should use 10-point font size
 - Other headings should use 10-point Courier New Font.
 - The footer should show the page number as well as the date last updated.
2. Design a time-table form for your college.
 - The first line should mention the name of the college in 16-point Arial Font and should be bold.
 - The second line should give the course name/teacher's name and the department in 14- point Arial.

- Leave a gap of 12-points.
- The rest of the document should use 10-point Times New Roman font.
- The footer should contain your specifications as the designer and date of creation.

3. Create the following one page documents.

(a) Compose a note inviting friends to a get-together at your house, including a list of things to bring with them.

(b) Design a certificate in landscape orientation with a border around the document.

4. Create the following document: A newsletter with a headline and 2 columns in portrait orientation, including at least one image surrounded by text.

5. Convert following text to a table, using comma as delimiter Type the following as shown (do not bold).

Color, Style, Item

Blue, A980, Van Red,

X023, Car Green,

YL724, Truck

Name, Age, Sex Bob,

23,

M Linda, 46,

F Tom, 29, M

6. Prepare a grocery list having four columns (Serial number, the name of the product, quantity and price) for the month of April, 06.

- Font specifications for Title (Grocery List): 14-point Arial font in bold and italics.
- The headings of the columns should be in 12-point and bold.
- The rest of the document should be in 10-point Times New Roman.
- Leave a gap of 12-points after the title.

7. XYZ Publications plans to release a new book designed as per your syllabus. Design the first page of the book as per the given specifications.

(a) The title of the book should appear in bold using 20-point Arial font.

(b) The name of the author and his qualifications should be in the center of the page in 16-point Arial font.

(c) At the bottom of the document should be the name of the publisher and address in 16-point Times New Roman.

(d) The details of the offices of the publisher (only location) should appear in the footer.

8. Create the following one page documents.

a) Design a Garage Sale sign.

b) Make a sign outlining your rules for your bedroom at home, using a numbered list.

9. Enter the following data into a table given on the next page.

HRA is calculated as follows:

Grade	HRA % (of Basic)
1	40%
2	35%
3	30%

Gross = Basic + HRA + VA Net =
Gross - PF PF is 8% for all Grades

VA is 15000, 10000 and 7000 for Grades 1, 2 and 3.

- Find max, min and average salary of employees in respective Grade
- Count no. of people where VA>HRA
- Find out most frequently occurring grade.
- Extract records where employee name starts with "A" has HRA>10000
- Print Grade wise report of all employees with subtotals of net salary and also grand totals. Use subtotal command.
- Extract records where Grade is 1 or 2 and salary is between 10000 and 20000 both inclusive.

Q5. In a meeting of a marketing department of an organization it has been decided that price of selling an item is fixed at Rs40. It was resolved to increase the sell of more of more items and getting the profit of Rs40,000/. Use Goal Seek of find out how many items you will have to sell to meet your profit figure.

Q6. To study the variation in volume with pressure for a sample of an air at constant temperature by plotting a graph for P - V and P-I/V. Sample

observations are:-

Pressure(P)	Volume (V)	I/V	PV	P/V
75	20			
78.9	19			
83.3	18			
88.2	17			

Q7. Plot the chart for marks obtained by the students (out of 5) vs. frequency (total number of students in class is 50).

Q8. Create the following worksheet(s) containing an year wise sale figure of five salesmen in Rs.

Salesman	2002	2003	2004	2005
MOHAN	10000	12000	20000	50000
MITRA	15000	18000	50000	60000
SHIKHA	20000	22000	70000	70000
ROHIT	30000	30000	100000	80000
MANGLA	40000	45000	125000	90000

Apply the following Mathematical & Statistical functions:

- i) Calculate the commission for each salesman under the condition :-
 - a) If total sales is greater than Rs. 3, 00,000/-, then commission is 10% of total sale made by the salesman.
 - b) Otherwise, 4% of total sale.
- ii) Calculate the maximum sale made by each salesman.
- iii) Calculate the maximum sale made in each year.
- iv) Calculate the minimum sale made by each salesman.
- v) Calculate the minimum sale made in each year.
- vi) Count the no. of sales persons.
- vii) Calculate the cube of sales made by Mohan in the year 2002.
- viii) Find the difference in sales by salesman Mitra between the year 2002 and 2003. Find the absolute value of difference.
- ix) Also calculate the Mode, Stddev, Variance, Median for the sale made by each salesman.
- ix) Calculate the year wise Correlation coefficient between the sales man Mohan and Mitra year wise

Q9. The following table gives an year wise sale figure of five salesmen in Rs.

Salesman	2000	2001	2002	2003
S1	10000	12000	20000	50000
S2	15000	18000	50000	60000
S3	20000	22000	70000	70000
S4	30000	30000	100000	80000
S5	40000	45000	125000	90000

- i) Calculate total sale year wise.
- ii) Calculate the net sales made by each salesman
- iii) Calculate the commission for each salesman under the condition :-
 - c) If total sales is greater than Rs. 4, 00,000/-, then commission is 5% of total sale made by the salesman.
 - d) Otherwise, 2% of total sale.
- iv) Calculate the maximum sale made by each salesman.
- v) Calculate the maximum sale made in each year.
- vi) Draw a bar graph representing the sale made by each salesman.

S.No.	Name	PH	CH	BY	MT	CS	Total Marks	%	Grade

- vii) Draw a pie graph representing the sale made by salesmen in year 2001.

10. Consider the following worksheet for APS 1st year students:-

1Grade is calculated as follows:-

If % ≥ 90	If %	Grade	A
≥ 80 & < 90	If %	Grade	B
≥ 70 & < 80	If %	Grade	C
≥ 60 & < 70		Grade	D
Otherwise			

students will be declared fail.

- i) Calculate Grade using if function
- ii) Sort the data according to total marks
- iii) Apply filter to display the marks of the students having more than 65% marks.
- iv) Draw a pie chart showing % marks scored in each subject by the topper of the class.
- v) Draw the doughnut chart of the data as in (iv)
- vi) Enter the S.No. of a student and find out the Grade of the student using VLOOKUP.
- vii) Extract all records where name
 - a) Begins with "A"
 - b) Contains "A"
 - c) Ends with "A"

Practical List for presentation:

1. Create five Power point slides. Each slide should support different format. In these slides explain areas of applications of IT. Make slide transition time as 10 seconds.
2. Create five Power Point slides to give advantages/disadvantages of computer, application of computers and logical structure of computer.
3. Create five Power Point slides detailing the process of internal assessment. It should be a self running demo.

DETAILED SYLLABUS OF Basic Computing 3rd SEMESTER

Title of the Course : Web Technology and Web Designing
Course Code :
Nature of the Course : SEC - 3
Course Credit : 03 Credits
Distribution of Marks :

Units	COURSE CONTENT	L	T	P	TOTAL HOURS
1	Introduction to Internet, WWW and web browsers: Basic of Computer networks; LAN, WAN; Concept of Internet; Applications of Internet; connecting to internet; What is ISP; Knowing the Internet; Basics of internet connectivity related troubleshooting, World Wide Web; Web Browsing software, Search Engines; Understanding URL; Domain name; IP Address; Using e-governance website.	4		6	10
2	Communications and Collaboration: Basics of electronic mail; Getting an email account; Sending and receiving emails; Accessing sent emails; Using Emails. Browsing Internet: Student should access the Internet for Browsing. Students should search the Internet for required information. Students should be able to create e-mail account and send email. They should get acquaintance with applications like Facebook, skype etc. If Intranet mailing facility is available in the organization, then students should share the information using it. If the operating system supports sending messages to multiple users (LINUX supports it) in the same network, then it should be done by the student. Students are expected to submit the information about different browsers available, their features, and search process using different natural languages, and creating email account.	4		6	10
3	Introduction to Web Design: Introduction to hypertext markup language (html); document type; definition, creating web pages, graphical elements, lists, hyperlinks, tables, web forms, inserting images, frames. The Head, the Body of Colors, Attributes of Lists, ordered and unordered Relative Links, Absolute Links of Link Attributes Using the ID Attribute to Link Within a Document	4		6	10

4	Putting an Image on a Page Using Images as Links or Putting an Image in the Background Creating a Table Table Headers or Captions Spanning Multiple Columns of Styling Table Basic Input and Attributes or Other Kinds of Inputs of Styling forms with CSS AJAX Basics; JQuery Basics	10		10	20
	Total	22		28	50

Where, L=Lecture, T=Tutorial, P=Practical

Suggested Readings:

1. Introduction to **HTML** and CSS -- O'Reilly , 2010
 2. Jon Duckett, HTML and CSS, John Wiley, 2012
 3. Web Enabled Commercial Application Development Using Html, Dhtml, javascript, Perl CGI By Ivan Bayross, BPB Publications, 2009.
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