

## GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT COURSE CURRICULUM

Course Title: Computer Application  
(Code: 3315102)

Diploma Programmes in which this course is offered	Semester in which offered
Computer aided costume design and dress making	<b>First Semester</b>

### 1. RATIONALE

Computer has become essential component of Engineering and Technology. It makes the things easy, faster and perfect. This course familiarise the students with developments in the field of computer and information technology and provides basic knowledge related to computer hardware and hands on experience on software viz MS Office, MS power point, MS excel, AutoCAD and use of internet .

### 2. LIST OF COMPETENCIES

The course content should be taught and implemented with the aim to develop different types of skills leading to the achievement of the following competencies.

- i. Use MS Office software for word-processing, data analysis and preparing presentations
- ii. Create simple shapes and drawings using AutoCAD software
- iii. Use internet efficiently

### 3. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE	PA	ESE	PA	150
2	0	3	5	70	30	20	30	

**Legends:** L-Lecture; T – Tutorial/Teacher Guided Theory Practice; P - Practical; C – Credit;  
ESE - End Semester Examination; PA - Progressive Assessment.

#### 4. DETAILED COURSE CONTENTS

Unit	Major Learning Outcomes	Topics and Sub-topics
<b>Unit – I Basics of Computer System</b>	1.1. Describe computer hardware and software 1.2 Identify I/O devices 1.3 Describe functioning of CPU, ALU and memory unit 1.4 Differentiate various types of printers 1.5 Demonstrate various file handling operations	<b>Basics of Computer System</b> <ul style="list-style-type: none"> <li>• Concept of Hardware and Software</li> <li>• Computer block diagram</li> <li>• Input and Output unit</li> <li>• CPU, Control Unit, Arithmetic logic Unit (ALU), Memory Unit</li> <li>• Monitor, Printers: Dot matrix, Laser, Inkjet, Plotters, Scanner</li> <li>• System software and Application Software</li> <li>• Creating and naming of file and folders</li> <li>• Copying file, renaming and deleting of files and folders,</li> <li>• Searching files and folders, installation application, creating shortcut of application on the desktop</li> <li>• Overview of control Panel, Taskbar.</li> </ul>
<b>Unit– II MS - Word 2007</b>	2.1 Use basic text formatting features 2.2 Manipulate text 2.3 Use page Setup features 2.4 Use spell and grammar utility 2.5 Insert graphics/ clipart 2.6 Create and manipulate table 2.7 Use auto shapes and its formatting with text 2.8 Prepare MS Word document	<b>MS - Word 2007</b> <ul style="list-style-type: none"> <li>• Overview of Word processor</li> <li>• Basics of Font type, size, colour,</li> <li>• Effects like Bold, italic, underline</li> <li>• Case changing options,</li> <li>• Inserting, deleting, undo and redo, Copy and Moving (cutting) text within a document,</li> <li>• Formatting Paragraphs and Lists</li> <li>• Setting line spacing</li> <li>• Page settings and margins including header and footer</li> <li>• Spelling and Grammatical checks</li> <li>• Table and its options, Inserting rows or columns, merging and splitting cells</li> <li>• Working with pictures, Inserting Pictures from Files,</li> <li>• Using Drawings and WordArt; Lines and Shapes, Modifying Drawn Objects, Formatting Drawn Objects, options for Creating and Modifying a WordArt Object</li> </ul>
<b>Unit– III MS - Excel 2007</b>	3.1 Use basic formatting and data entry features 3.2 Create and manipulate charts 3.3 Setup page layout and print worksheet	<b>MS - Excel 2007</b> <ul style="list-style-type: none"> <li>• Introduction to Excel 2007,</li> <li>• Introduction to data, Cell address, Excel Data Types, Concept of hyperlink</li> <li>• Introduction to formatting, number, text and date formatting</li> <li>• Concept of worksheet and workbook</li> <li>• Introduction to charts, overview of different types of charts available with Excel</li> <li>• Concept of print area, margins, header, footer and other page setup options</li> </ul>

Unit	Major Learning Outcomes	Topics and Sub-topics
<b>Unit – IV</b> <b>MS – Power Point 2007</b>	4.1 Create new presentation and apply basic formatting features 4.2 Use master slide 4.3 Work with objects and clips 4.4 Insert audio and video 4.5 Use navigation and hyper linking	<b>MS - PowerPoint 2007</b> <ul style="list-style-type: none"> <li>Outline of an effective presentations,</li> <li>Starting a New Presentation Files, Saving work,</li> <li>Creating new Slides, Working with textboxes.</li> <li>Changing a slides Layout, Applying a theme, Changing Colours, fonts and effects, Changing the background</li> <li>Managing slides master, Managing theme.</li> <li>Changing the font, font size, font colour, text fill,</li> <li>Adjusting character spacing and line spacing Formatting text boxes.</li> <li>Word arts, styles,</li> <li>Correcting your spelling</li> <li>Selecting, deleting, moving, copying, resizing and arranging objects,</li> <li>Working with drawing tools, Applying shape or picture styles, Applying object borders, object fill, object effects.</li> <li>Working with clip art collection and modifying clip art,</li> <li>Insert audio and video</li> <li>Creating hyperlinks, Using action buttons</li> </ul>
<b>Unit– V</b> <b>AutoCAD</b>	5.1 Create and edit 2D drawing using basic AutoCAD Command	<ul style="list-style-type: none"> <li>Introduction to AutoCAD Meaning and its use.</li> <li>Creating and editing 2D drawing using draw and edit command</li> <li>Drawing 2D entities like- Line, Circle, Arc, Ellipse, Regular Polygons, Polylines, and Donuts.</li> <li>Basic Editing Commands like- Move, Copy, Rotate.</li> <li>Basic dimensioning.</li> </ul>
<b>Unit-VI</b> Introduction to Internet	6.2 Receive and send messages via email Use internet to download information on a given topic	6.1 Internet and its scope. 6.2 Creating e-mail id, sending and receiving Email 6.3 Use search engine for downloading information

## 5. SUGGESTED SPECIFICATION TABLE WITH HOURS & MARKS (THEORY)

Unit No.	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total
I.	Basics of computer system	04	03	02	02	07
II.	MS Word 2007	07	05	05	11	21
III.	MS Excel 2007	07	05	05	11	21
IV.	MS Power Point2007	04	02	02	03	07
V.	AutoCAD	04	02	02	03	07
VI.	Introduction to Internet	02	01	03	03	07
	<b>Total</b>	<b>28</b>	<b>18</b>	<b>19</b>	<b>33</b>	<b>70</b>

### Legends:

R = Remembrance; U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

## 6. SUGGESTED LIST OF EXERCISES/PRACTICALS

The exercises should be properly designed and implemented with an attempt to develop different types of skills leading to the achievement of the competency

S. No.	Unit No.	Practical
1	I	Create and manage files and folder tree
2	II	Entering and editing text in document file.
3	II	Apply formatting features on Text like Bold, Italics, Underline, font type, colour and size.
4	II	Apply features like bullet, numbering
5	II	Create documents, insert images
6	II	Create and manipulate tables
7	III	Entering and editing data in worksheet
8	III	Create and manipulate EXCEL charts
9	III	Create Pay bills, Pay slips, using Excel
10	III	Print sheet using print area
11	IV	Basic operations of Power point, Create PPT and inset and delete slides
12	IV	Create Project presentations, Lecture presentations.
13	IV	Use of Mater Slide in Presentation
14	IV	Apply basic formatting features in presentation like font, font size, font colour, text fill, spacing and line spacing Formatting text boxes, word arts, styles bullet and numbering
15	IV	Working with drawing tools, Applying shape or picture styles, Applying object borders, object fill, object effects.
16	IV	Working with video, Link to video and sound files.
17	IV	Creating hyperlinks, Using action buttons
18	V	Create given 2D drawing using AutoCAD
19	V	Edit given 2D drawing using AutoCAD
20	VI	Create email account and sending and receive message on email
21	VI	Use search engine for downloading appropriate information

## 7. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITIES

Following is the list of proposed student activities like: internet based assignments, teacher guided self learning activities, course/library/internet/lab based mini-projects etc. These could be individual or group-based.

## 8. SUGGESTED LEARNING RESOURCES

### A. List of Books

S.No.	Author	Title of Books	Publication
1	Experienced professors	Computer application	New Era publication
2	Berghauser/schlieve	AutoCAD	BPB Publication, new Delhi.
3		MS Office	Atul prakashan

### B. List of Major Equipment/ Instrument

Computer System with latest configuration along with Windows Operating System

### C. List of Software/Learning Websites

Windows7 Professional

MS-Office 2007

AutoCAD

## 9. COURSE CURRICULUM DEVELOPMENT COMMITTEE

### Faculty Members from Polytechnics

- **Prof. Ms. Ila. J. Dave** HOD CACDDM Dept. Sir B.P.T.I. Bhavnagar
- **Ms. Nirza A. Atrey** I/C HOD CACDDM, GGP, Ahmedabad
- **Ms. Kanchana P. Shah** I/C HOD CACDDM ,C.U. Shah Polytechnic, Surendranagar
- **Ms. Farjana V. Kugashiya**, Lecturer ,CACDDM, GGP, Ahmedabad
- **Ms. Punita J. Virani** , Lecturer, CACDDM, Sir B.P.T.I. Bhavnagar

### Co-ordinator and Faculty Member from NITTTR Bhopal

- **Prof. Mrs. Chanchal Mehra**, Associate Professor, Dept. of Vocational Education and Entrepreneurship Development, NITTTR, Bhopal