

DEPARTMENT OF COMPUTER SCIENCE				CLASS: II UG				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
III	NME-1	20U3DNM1	Computer fundamentals	2	2	25	75	100

Nature of Course			
Knowledge and skill	✓		Employability oriented
Skill oriented			Entrepreneurship oriented

COURSE OBJECTIVES:

Units	TOPICS	Total Hours: 30	K-Levels
Unit -1	Characteristics of Computers Block Diagram - Problem Solving Using Computers - Classification of Computers - Computing Models.	6 hrs	Up to K2
Unit-2	Internal Representation Representation of Characters, Integers & Fractions in Computers	6 hrs	Up to K2
Unit-3	Number conversions Hexadecimal Binary – Octal - Decimal - Programming Languages.	6 hrs	Up to K2
Unit-4	Components Functional Components of Computers - Input - Output Units	6 hrs	Up to K2
Unit-5	Components - Memory – CPU.	6 hrs	Up to K2

Books for Study:

V. Raja Raman - “Fundamentals of Computers”- II Edition – PHI – 1998.

Books for Reference :

1. Basantra – “Computers Today” - Galgotia Publications.
2. Roger-Hunt – “Computers & Commonsense “ – BPB pub.

Web resources:

1. file:///C:/Users/cs/Downloads/FundamentalsofComputerStudies.pdf
2. https://www.tutorialspoint.com/computer_fundamentals/computer_fundamentals_tutorial.pdf

Rationale for Nature of the course:

This course deals with basic understanding of computers and software and it has an easier procedures for solving problems they may have encountered. For example, someone with experience of getting an error while logging in may realize the exact reasons and can solve it by an individual.

Activities having direct bearing on Skill development / Employability /Entrepreneurship

- Seminar
- Assignment preparation
- Discussion with on-hand training.

Pedagogy:

The teaching methods includes Chalk and talk, PowerPoint, demonstrations, assignments and on-hand training.

Lecture schedule:

Unit	Topic	Hrs	Mode
Unit I	Block Diagram	1	Chalk and talk, Quiz and assignment
	Problem Solving Using Computers	2	
	Classification of Computers	1	
	Computing Models	2	
Unit II	Representation of Characters,	3	Chalk and talk, Group discussion
	Integers & Fractions in Computers	3	
Unit III	Hexadecimal Binary	2	Chalk and talk, Quiz and assignment
	Octal - Decimal	2	
	Programming Languages	2	
Unit IV	Functional Components of Computers	3	Chalk and talk, Quiz and
	Input - Output Units	3	
Unit V	Memory	3	Chalk and talk, Quiz and
	CPU.	3	

Learning Outcome Based Education & Assessment (LOBE)
Blue Print – Computer fundamentals (CIA-I & II)
Articulation Mapping – K Levels with Courses Learning Outcomes (CLOs)

CLOs	K- Level	Section A		Section B		Section C	
		Short Answers		(Either/or Choice)		(Open Choice)	
		No. of Questions	K- Level	No. of Questions	K- Level	No. of Questions	K- Level
CLO x	Up to K2	1	K1	1	K2/K2	1	K1
CLO y	Up to K2	2	K1	1	K2/K2	2	K1
No. of Questions to be asked		3		2		3	
No. of Questions to be answered		3		2		2	
Marks for each question		2		7		10	
Total Marks for each section		6		14		20	

Distribution of Section-wise Marks with K Levels (CIA I & II)

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	6	-	30	-	36	56.25	100
K2	-	28	-	-	28	43.75	
K3	-	-	-	-	-	-	-
K4	-	-	-	-	-	-	-
Total Marks	6	14	30	-	64	100.00	100%

Learning Outcome Based Education & Assessment (LOBE)
Blue Print – Computer fundamentals
Articulation Mapping – K Levels with Courses Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C	
			Short Answers		(Either / or Choice)		(Open Choice)	
			No. of Questions	K- Level	No. of Questions	K- Level	No. of Questions	K- Level
1	CLO 1	Up to K2	1	K1	1	K2/K2	1	K1
2	CLO 2	Up to K2	1	K1	1	K2/K2	1	K1
3	CLO 3	Up to K2	1	K1	1	K2/K2	1	K1
4	CLO 4	Up to K2	1	K1	1	K2/K2	1	K1
5	CLO 5	Up to K2	1	K1	1	K2/K2	1	K1
No. of Questions to be asked			5		5		5	
No. of Questions to be answered			5		5		3	
Marks for each question			2		7		10	
Total Marks for each section			10		35		30	

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	10	-	50	-	60	46.15	100
K2	-	70	-	-	70	53.85	
K3	-	-	-	-	-	-	-
K4	-	-	-	-	-	-	-
Total Marks	10	35	50	-	130	100.00	100

K1 –Remembering and recalling facts with specific answers

K2 – Basic understanding of facts and stating main ideas with general answers

COURSE OUTCOMES:

On the completion of the course the students will be able to

COs	COURSE OUTCOME	Knowledge Level (basis of Bloom's Taxonomy)
CO-1	To learn the function of computer using block diagram	K1
CO-2	To know the various types of computer models and its usage	Up to K2
CO-3	Learn the techniques of problem solving using computers	Up to K2
CO-4	Learn number systems and its conversion methods	Up to K4
CO-5	Know about various primary and secondary components of computers.	Up to K3
CO-6	Know about the types of memory and functions of CPU	Up to K3

MAPPING OF COs WITH PSOs:

Course Outcomes	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism Ethics and equity)	PSO 6 (Life Long Learning)
CO-1	3	3	3	2	3	2
CO-2	1	2	2	1	2	1
CO-3	3	3	3	3	3	2
CO-4	2	2	3	1	2	3
CO-5	2	2	3	2	2	3
CO-6	3	3	3	2	3	2

3- Advanced Application

2- Intermediate

1- Introductory

Course Designer(s):

1. Prof. R.Umasankari
2. Prof.P.Sridevi.