

Subject Code: 1ET4000208	Subject Title: Fundamentals Of Information Technology
Pre-Requisite	--

RATIONALE:

To generate an awareness about information technology's role in modern days. The Course aims to give insights of computer and internet world.

COURSE OBJECTIVE:

Students can get basic knowledge of computer and its parts. Also know about the uses of information technology with the help of internet and other communication media.

- Understand the importance of information technology and its impact on society.
- Understand the power and potential of the INTERNET
- Understand about hardware and software used in computer
- Understand about basic networking and database management

TEACHING AND EVALUATION SCHEME:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				Total (Marks)
Lecture	Tutorial	Practical	Credit	Theory		Practical		
				University Assessment	Continuous Assessment	University Assessment	Continuous assessment	
3	-	-	3	60	40	-	-	100

DETAILS OF COURSE CONTENTS:

SR. NO.	TOPICS	TOTAL HOURS	WEIGHTAGE %
1	Introduction of Information Technology 1.1. What is information? 1.2. Information technology 1.3. Information processing cycle 1.4. Data 1.5. Data v/s information 1.6. Use of it/computer in: 1.6.1.The home and at play 1.6.2.Education and training 1.6.3.Entertainment and the arts 1.6.4.Business and industries 1.6.5.Science, engineering and mathematics 1.6.6.Medicine, defense, space application etc	02	06
2	INTERNET 2.1 What is the Internet? 2.2 Web pages 2.3 Home page 2.4 Use of web sites 2.5 Access providers	08	14

	2.6 Types of access 2.7 The browser 2.8 Universal resource locators 2.9 Browsing or surfing the web 2.10 A search engine 2.11 Internet phone 2.12 Applications of the Internet: 2.12.1 E-mail 2.12.2 Voice mail 2.12.3 Newsgroup 2.12.4 Mailing list 2.12.5 Internet relay chat 2.12.6 Games 2.12.7 Video-conferencing 2.12.8 File transfer protocol		
3	COMPUTER HARDWARE 3.1. Classification of computers 3.1.1 Supercomputers 3.1.2 Mainframe 3.1.3 Desktop computers 3.1.4 Laptop computers/ Notebook computers 3.2 Anatomy of a computer 3.2.1 Motherboard 3.2.2 CPU 3.2.3 SMPS 3.2.4 Expansion slots 3.2.5 Sockets and ports 3.2.6 Drives 3.3 Special input devices: 3.3.1 Pointing devices: 3.3.1.1 Mouse 3.3.1.2 Track balls 3.3.1.3 Track sticks 3.3.1.4 Touch pads 3.3.1.5 Joysticks 3.3.2 Modems 3.3.3 Scanners 3.3.4 Speech recognition devices 3.4 Special output devices: 3.4.1 Dot matrix printers 3.4.2 Laser printers 3.4.3 Color printers 3.4.4 Line printers 3.4.5 Photo printers 3.4.6 Thermal printers 3.4.6 Plotters	06	14

4	COMPUTER SOFTWARE 4.1 What is software? 4.2 Types of software: 4.2.1 Operating system 4.2.2 Application software 4.2.3 Utility programs 4.2.4 Language processors (compiler, interpreter) 4.3 Interfaces and operating system. 4.3.1 Character based interface 4.3.2 Graphical user interface 4.3.3 Pen based interface 4.3.4 Touch screen interface 4.3.5 Conversation interface 4.4 Types of operating system. 4.4.1 Desktop 4.4.2 Server 4.4.3 Mainframe 4.4.4 Embedded 4.5 Characteristics of operating system	09	20
5	COMPUTERS NETWORKS 5.1 Network Architecture (Star, Tree, Bus, Mesh, Ring) 5.2 Categories of Network (LAN, MAN, WAN) 5.3 Intranet 5.4 Firewall 5.5 Various networking devices (Hub, Switch, Modem, NIC) 5.6 Network Server System (File, Print, Database)	06	16
6	Database Technology 6.1 What is Database? 6.2 Advantages of database 6.3 Organization of database 6.4 RDBMS 6.5 Form 6.6 Query 6.7 Responsibilities of Database Administrator 6.8 Distributed Database 6.9 System approach of Database (Integrated, Distributed)	06	16
7	Multimedia 7.1 Components of Multimedia (Sound Card, CD-ROM, Graphics Card, DVD) 7.2 Applications of Multimedia (Education, Office works, Industry)	02	06
8	Viruses 8.1 What is a virus? 8.2 Origin of virus 8.3 Process of infection 8.4 Classification of virus Boot infectors System infectors General com or exe infectors 8.5 Latest Known viruses 8.6 Prevention 8.7 Remedial measures	03	08

COURSE OUTCOME:

After successful completion of this course, the students will be able to :

1. Understand a computer system that has hardware and software components, which controls and makes them useful.
2. Understand the operating system as the interface to the computer system.
3. Use the basic functions of an operating system.
4. Set the parameter required for effective use of hardware combined with and application software's
5. Compare major OS like Linux and MS-Windows
6. Use file managers, word processors, spreadsheets, presentation software's and Internet
7. Have hands on experience on operating system and different application software
8. Use the Internet to send mail and surf the World Wide Web.
9. Understand about basic networking and database management

LIST OF REFERENCES:

S.No.	Title of Books	Author	Publication
1	Information Technology	Curtin, Foley, Sen, Morin	S.Chand & Co., latest edition
2	Fundamentals Of Computers	V. Rajaraman	(3 rd EDITION)

E-Learning Websites:

<https://www.tutorialspoint.com/>

<https://edu.gcfglobal.org/>

<https://www.computerhope.com/>