

Course Code	Course Name	Hours per Week			Total	Total
		L	T	P	Hrs.	Credits
EN3ES05	Basic Computer Engineering	3	0	0	3	3

Unit-I Introduction to Computers

Basic Computer Operations, Classification of Computers, Components of Computer Hardware, Bus Architecture and Instruction Set, I/O devices, Software, Application of Computers, Number Systems, Primary Memory, Secondary Memory.

Basics of Data Structures: Introduction to data Structures, Defining an Array, Stack, Queue, Linked List as Data Structure.

Unit-II Database Management System

Introductions to DBMS, File based approach and Database Approach, The Evolution of Data Models, Three level Architecture of DBMS, Data Independence, Data Dictionary, Database Administrator, Database Languages, Introduction to SQL.

Unit-III Introduction to Operating System

Role of Operating System, Types of Operating Systems, Functions of Operating Systems, Process Management, File Management, Device Management, Security, Deadlocks, MS DOS, UNIX operating system, Linux Operating System, Windows Operating System.

Unit-IV Introduction to Computer Networks

Definition and Purpose of Computer Network, Open System Interconnection, Types of Networks, Topologies in Network Design, Switching Techniques, TCP/IP Network Model, Basic Networking Devices, Introduction to Internet, Introduction to WWW and Network Security.

Unit-V Computer Languages and Software

Introduction to Computer Languages, Evolution of Programming Languages, Classification and Generation of Programming Languages, Features of good Programming Language, Selection of Programming Language, Software Definition, Relationship between Software and Hardware, Software Categories, System Software Application Software.

Text Books:

1. A.H.F. Silberschatz, Data Base System Concepts, McGraw -Hill.
2. A.S. Tanenbaum, Modern Operating Systems, Pearson Education.
3. A.S. Tanenbaum, Computer Networks, Pearson Education.
4. R. Mall, Fundamentals of Software Engineering , PHI