

**COURSE OBJECTIVE:**

To Introduce:

- Course Structure & Scope of the branch
- The basic concepts in Computer Science & Engineering
- The different styles of programming
- Types & important features of programming languages

**COURSE CONTENT:**

CBCS Guidance/ Counselling / Advices, Complete course structure/scheme, Continuous Evaluation System. Relevance & Importance of each subject, Specialization Flow Diagram, Pre-requisite Flow Diagram, Scope of the Branch and Future Avenues.

Review of Computer Engineering Fundamentals: Definition, Evolution, Classification, Number System, Organization i.e. CPU, register, Bus Architecture, Instruction Set, Memory & Storage Systems, I/O Devices & Application Software

Computer Science & Engineering Application in: Data Processing, Information Systems, Communication, Interworking, World Wide Web, e-Business, Bio-Informatics, Health Care, Remote Sensing & GIS, Meteorology and Climatology, Computer Gaming, Multimedia and Animation etc, Defence.

Introduction to flowchart, Algorithm, Categories of Programming Languages, Program Design, What are data structures, Introduction to Programming, Security Threats: Viruses, Worms, Malware, Trojans, Spyware, and anti-spyware software, firewall, internet fraud.

Overview and idea about good computer magazines, Major Computer Science & Engineering Journals, Case Studies/ Success Stories of Computer Engineers, Professional Societies and associations, Computing Ethics & Good Practices.

**COURSE OUTCOMES**

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

- Know course structure & scope of the branch
- Know the basic concepts in Computer Science & Engineering
- Compare different styles of programming languages
- Will start writing algorithm for problems

**EVALUATION**

Evaluation will be continuous an integral part of the class only through internal assessment

**TEXT/ REFERENCES:**

*Subhasis Banerjee, S. Arun Kumar, D. Dubhashi, Introduction to Computer Science, Peter Norton, Computing Fundamentals, McGraw Hill India*

*Peter Norton, Introduction to Computers, TMH*

*Silakari & Rajesh K Shukla, Basic Computer Engineering, Wiley India*

*Kenneth Hoganson, Concepts in Computing , Jones & Bartlett*

*RJ Dromey, How to solve it by computer, Prentice Hall India Series, 2007*