

Course Code EDEC 128
SEMESTER – I
Computer Science

OBJECTIVES :

By the end of the course the Teacher Trainees will attain the following knowledge and skills.

- The Teacher trainees will acquire the basic knowledge required to teach computer Science and will understand the values of learning computer.
- The teacher trainees will acquire knowledge on the programming logics and the learning strategies.
- The teacher trainees will be able to identify the educational objectives in teaching and learning of computer science.
- The teacher trainees will be able to identify teacher behaviour and how to prepare curriculum in computer science.
- The teacher trainees will understand the purpose of networking of computers and their utilities in the field of education.
- The teacher trainees will be able to set up and maintain a computer laboratory.
- The teacher trainees will be able to understand the different methods of teaching computer science.
- The teacher trainees will acquire the knowledge on different types of teaching aids and understand their purr

Unit –I

- As per prescribed syllabus by Gujarat State Higher Secondary Board for Std. V to VIII.

UNIT –II Genesis in Teaching Computer Science

- Aims and Objectives of teaching computer science in schools – need for computer science – Importance of computer science in higher Secondary level.
- Micro teaching skills – Introducing – Probing questioning – Explaining - Demonstrating – Black Board work.
- Lesson plan Steps in writing lesson plans (Stray, Digital) – unit plan
- Significance of lesson planning.

UNIT- III Instructional Methods :

- Strategies – Team teaching – lecture – lecture cum Demonstration – Inductive – Deductive – Analytic – synthetic – Problem solving – Laboratory – seminar – small group strategies – cooperative learning – group learning – debate – discussion – Individualized strategies – Library based learning – programmed learning – CAL – Web based learning.
- Principles – Computer Assisted learning (CAL) – material preparation – material preparation – Evaluation of CAL material – Comparison with Programmed Learning material.

Unit –IV Practicum :

- Practice of a minimum of three skills on micro teaching
- Preparation of Lesson plan and Unit plan
- Preparation of teaching aids
- Preparation of Programmed Instruction
- Linear Programming (Minimum of 20 frames)
- Multimedia Presentation (Minimum of 20 slides)
- Preparation of transparencies
- Construction of an achievement test
- Critical analysis of content course of standard IX to XII syllabus.
- Identification and cataloguing of three websites relating to the prescribed school curriculum
- Comparative evaluation of any two web pages bearing on the same unit in the school curriculum