

ELECTIVE PAPER
INFORMATION AND COMMUNICATION TECHNOLOGY IN
EDUCATION
FIRST YEAR / SECOND SEMESTER

OBJECTIVES:

At the end of the course, the student-teacher will be able to

- understand the concept of Information and Communication Technology;
- acquire knowledge about new horizons in ICT;
- comprehend the theory of communication;
- appreciate enriched learning experiences using ICT;
- comprehend the role played by ICT in Education;
- attain the knowledge of internet and its applications;
- appreciate the use of multimedia and web content for teaching learning;
- use ICT in educational institutions;
- organize and learn through ICT;
- analyse the role of ICT in Evaluation

**Unit – I: INFORMATION AND COMMUNICATION TECHNOLOGY AND
ITS NEW HORIZONS IN ICT (15 hours)**

ICT: Concept, Objectives, Need and Importance of ICT - Characteristics and Scope of Information and Communication Technology.

Recent trends in the area of ICT - Interactive Video-Interactive White Board- videoconferencing –M-learning, Social Media- Community Radio: Gyan Darshan, Gyanvani, Sakshat Portal, e-Gyankosh, Blog, Whatsapp, Facebook, Twitter etc.-

Recent experiments in the third world countries and pointers for India with reference to Education.

Activity : Use various social networks in teaching and learning and report their effectiveness on learning of the students.

Unit – II: COMMUNICATION AND INTERACTION (14 hours)

Communication - Concept, Elements, Process, Barriers and nature - Types of classroom communication-verbal, non - verbal classroom communication- its barriers and solutions. Application of ICT for Enriching Classroom Experiences – Application and use of Multimedia Educational Software for Classroom situations – Use of Internet based media for teaching and learning enrichment – Project based learning using computers, Internet and Activities – Collaborative learning using group discussion, projects, field visits, blogs, etc.

Activity : Prepare a communication module on any one topic and analyse its effectiveness for student learning.

Unit - III: ICT IN EDUCATION AND ITS APPLICATIONS (15 hours)

E-learning: Meaning, Advantages and Disadvantages – Open Educational Resources: Concept and Significance - Internet and Education, Critical Issues in Internet usage –Authenticity, Addiction, Plagiarism, Ethical and Legal Standards.

Introduction - History of the internet- Understanding WWW- Web browsers – Favourites and bookmarks - Kinds of information available - Parts of internet, searching the net, researching on the net.

Activity : Submit a report on critical issues in utilization of internet among learners.

Unit -IV: MULTI – MEDIA TECHNOLOGY AND INNOVATIONS IN TEACHING AND LEARNING

(16 hours)

Concept and Characteristics of Multi-media Technology - Multi-media packages in teacher training - Multi-media laboratory - need for multi-media laboratories in India - functions of multimedia laboratory - setting up of multi-media laboratory in class rooms - Personalized System of Instruction(PSI) - Meaning and concept, origin and growth of PSI- Current status and Research on PSI - problems involved in using PSI in India - Learner Controlled Instruction (LCI), Meaning and Concept of LCI - Advantages and Limitations of LCI.

Activity : prepare a multimedia package on any one topic to enrich the teaching – learning process.

Unit- V: LEARNING AND EVALUATION THROUGH ICT (15 hours)

Digital Story Telling - Combining media to tell a story – Scripting; Creating Photo essays and video documentation as a source of information and a learning process – Framework for Creation of Learning resources- Concept mapping - Developing a topic for a class room - Learning outcomes - Activity based learning.

ICT in Evaluation – Purposes and Techniques of Evaluation - Scope of ICT in evaluation - Data analysis; look at data, read and make meaning – Graphs - Exploring Sources of data - Evaluation of Data – Communicating data and data analysis.

Activity : Prepare various types of graph highlighting the performance of students.

SUGGESTED READING:

- ❖ Aggarwal, J. C. (2000). Innovations in Educational Technology. New Delhi: VikasPublishing House.
- ❖ Aggarwal.D.D.(2004). Educational Technology. New Delhi: Sarup Publishing House.
- ❖ Aggarwal, J. C. (2013). Modern in Educational Technology. New Delhi BlackPrints.
- ❖ Bharihok, D. (2000). Fundamentals of Information Technology. New Delhi: Pentagon Press.
- ❖ Bhattachary, S.P. (1994). Models of Teaching. Regency Publications.
- ❖ Byran, P. (1997). Discover the Internet Comdex Computer. New Delhi: Dream Tech Publishing.
- ❖ Gupta, M., &Arya. (1993). The Illustrated Computer Dictionary. New Delhi: Dream land
- ❖ Kumar, K.L (2000), Educational Technology, New Delhi, New Age InternationalPvt. Ltd.
- ❖ Madhu, P. (2006). Satellite in Education. Delhi: Shipra Publications.
- ❖ Mangal, S.K. & Uma Mangal (2009). Essentials of Educational Technology. NewDelhi: PHI Learning Pvt. Ltd
- ❖ Mrunalini, T. & Ramakrishna, A. (2014). ICT in Education. Neelkamal Publications, Hyderabad.
- ❖ Saxena, S. (2000). A First Course in Computers. New Delhi: Vikas PublishingHouse Pvt.Ltd.
- ❖ Shukla, Sathish S(2005). Basics of Information Technology for Teacher Trainees,Ahmedabad, Varishan Prakashan.