Bachelor of Education (B.Ed.)

Title of the Course: Elective Course: E.4: Education and Technology
(Semester: IV)

Credits: 4
MM: 100 (External: 70 Internal: 30)
Contact Week 15

Introduction of the Course

In an era where technology permeates every aspect of life, it is imperative that educators understand its role and relevance in education. This syllabus aims to provide an in-depth understanding of the concept, nature, scope, and importance of Educational Technology, thereby enabling educators to effectively integrate these tools into their teaching methodologies. Awareness of various models of teaching and learning aids is essential in the current educational landscape. This syllabus will expose educators to a variety of technological tools and models, enabling them to choose and adapt the ones most suitable to their teaching style and student needs. Understanding the role of different techniques in educational practice is vital. This syllabus aims to provide educators with a holistic view of these techniques, emphasizing their practical application and impact on student learning outcomes. As technology evolves rapidly, staying abreast of the latest trends and techniques is crucial for educators. This syllabus will equip educators with the knowledge to not only keep pace with these changes but also to critically evaluate and adopt new technologies in a way that enhances the educational experience. The ultimate goal of this syllabus is to foster a reflective approach towards the application of educational technology in education. It aims to encourage educators to consider how these technologies can be effectively integrated into their teaching practices to improve educational outcomes and prepare students for a technology-integrated world. The syllabus aims to produce teachers who are not only technologically proficient but also thoughtful about how technology is used to enhance learning and teaching. The focus is on creating a generation of educators who are equipped to navigate and utilize technological advancements in a way that positively transforms the educational landscape.

Learning Outcomes

After completion of the course student will be able to:

1. Develop an understanding of the concept, nature, scope and importance of Educational Technology.
2. Create awareness about models of teaching and teaching-learning aids in Educational Technology.
3. Obtain total perspective of the role of techniques in educational practice.
4. Acquaint with emerging trends and techniques in educational technology.

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5. Reflect upon application of educational technology, as a whole, in the field of education.

Number of Units: 4 **Weeks 15 = 60 hours**

Unit 1: Conceptual Understanding of Educational Technology (4 Weeks = 16 hours)

- Conceptions and misconceptions about educational technology
- Types of educational technology, approaches of educational technology, their role in modern educational practice.
- Nature and assumptions, factors influencing the application of educational technology, development of educational technology.

Unit 2: Models of Teaching and Traditional Teaching-Learning Aids (4 Weeks = 16 hours)

- Concept, meaning and characteristics of models of teaching,
- Strategies, assumptions and fundamental elements of teaching models.
- Edgar Dale's cone of experience and components.

Unit 3: Innovations in Educational Technology (4 Weeks = 16 hours)

- Multimedia in Education, Online Conferencing, Internet and its use, web tools, open education resources and ICT, ethical, social and technical concerns.
- Recent trends in educational technology viz. artificial intelligence, augmented reality, virtual reality.
- Issues in context: Differently abled learners, teacher replacing technology, learner and teacher as prosumer, cyber security and safety.

Unit 4: Educational E-Content Generation in the New Scenario (3 Weeks = 12 hours)

- Concept of e-content, essential parameters, text, images, pictures, audio, video, animation
- Content generation using software and applications, application of artificial intelligence in education.
- Recent applications and software for e-content development.

Practicum/ Suggested Projects / Assignments (Any Two)

1. Writing of a term paper on the given course contents.
2. Development of communication plan.
3. Critical review of educational program presented through any medium.
4. Development of e-content using artificial intelligence.
5. Interface with educational technology industry (through excursion).
6. Application and use of a recent technology tool in the classroom activities.

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Note: On the basis of the above, the teacher may design his/her own relevant projects/ assignments.

Essential/ Recommended/ Suggested Readings

- Apple, M. (1991): The new technology: Is it part of the solution or part of the problem in education? Computers in the Schools, 8(2), 59-81.
- Apple, M. (1995): Education and power. New York: Routledge.
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- Kanvaria, V.K. (2021). Digitalization in education: A shift in learning, teaching and pedagogue-development. In S. Pal, T.Q. Cuong, & R.S.S. Nehru (Eds.) Digital education pedagogy: Principles and paradigms (23-48). USA: Apple Academic Press (Taylor and Francis Group).
- Kanvaria, V.K. (2023). Digital learning and teaching: An innovative strategy for quality learning. In B. N. Panda (Ed.) Digital learning: An innovative strategy for quality learning. Bhubaneswar: RIE (NCERT).

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- Timothy J.N., Donald A.S., James D.L., James D.R. (2010). Educational technology for teaching and learning, (ed 4). Noida: Pearson Education.

Teaching Learning Resources (Digital and others): Across Units (If any)

UNESCO Website, NCERT Website, MoE Website, UGC Website, NCTE Website

Teaching Learning Process

The course will be taught through interactive pedagogic methods such as classroom discussion, debates, film discussions, critical media analysis, collaborative learning tasks which enhance reading comprehension of core writings in the area and innovative projects. Reflective expression and learning will be encouraged.

Assessment Method

The assessment will be formative in nature and will factor in student participation. Individual and group tasks and assignments will be given. Summative evaluation will be done through end- semester examination.

Key words: Educational Technology, Models of Teaching, Teaching-Learning Aids, Innovations, Educational E-Content Generation

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