

Course Code	Course Name	Credits
26ED505	EDUCATIONAL TECHNOLOGY IN THE AI ERA	04

Course Objectives

The course aims to,

- ✓ Develop an understanding of the concept, evolution, and significance of Artificial Intelligence (AI) in education.
- ✓ Familiarize learners with the foundations and scope of Educational Technology and its relationship with AI.
- ✓ Introduce various AI tools and technologies used in teaching, learning, and assessment processes.
- ✓ Enable students to understand the role of AI in personalized learning, adaptive instruction, and data-driven education.
- ✓ Encourage learners to explore future trends of AI in educational settings.

Learning Outcomes

After the completion of the course, the Learner will be able to,

- ❖ Explain the meaning, development, and role of Artificial Intelligence in the field of education.
- ❖ Describe the relationship between AI and Educational Technology and its importance in modern learning environments.
- ❖ Identify and use different AI tools and platforms that support teaching, learning, and assessment.
- ❖ Evaluate how AI supports personalized learning and adaptive instruction for diverse learners.
- ❖ Apply AI-based tools and strategies for developing innovative teaching materials and learning activities.

Unit 1 - Foundations of Educational Technology (12 hours)

Meaning and scope of Educational Technology - Objectives and importance of Educational Technology - Relationship between AI and Educational Technology - Technology-enhanced learning environments

Unit 2 – AI Tools Used in Education (12 hours)

Intelligent Tutoring Systems - AI chatbots for learning support - Adaptive learning platforms - AI-based assessment tools - Learning management systems with AI features

Unit 3 - AI for Personalized Learning (12 hours)

Concept of personalized learning - AI algorithms for student learning paths - Data-driven instruction - benefits of adaptive learning systems

Unit 4 – AI in Teaching and Learning Process (12 hours)

AI for lesson planning and content creation - AI for classroom management - AI in virtual classrooms and online learning - AI for student engagement and feedback

Unit 5 - Future Trends of AI in Education (12 hours)

AI-powered smart classrooms - virtual reality and AI integration - AI for inclusive and special education - future role of teachers in AI-driven education

Reference Books:

1. Artificial Intelligence in Education: Promises and Implications for Teaching and Learning – Wayne Holmes, Maya Bialik, & Charles Fadel. Boston: Center for Curriculum Redesign, 2019.
2. Artificial Intelligence in Education: 21st International Conference Proceedings – Edited by Cristóbal Romero & Sebastián Ventura.
3. Artificial Intelligence in Education – Rose Luckin. London: UCL Institute of Education Press, 2018.
4. Educational Technology: A Definition with Commentary – Alan Januszewski & Michael Molenda. New York: Lawrence Erlbaum Associates.
5. Educational Technology: Principles and Practice – S. K. Mangal & Uma Mangal. Educational Technology – K. Sampath, A. Panneerselvam, & S. Santhanam.
6. UNESCO (2021). AI and Education: Guidance for Policy Makers.

Alignment with NEP – 2020

The proposed course **Educational Technology in the AI Era (26ED505)** is designed in alignment with the transformative vision of the National Education Policy 2020.

1. NEP 2020 strongly emphasizes the use of technology to enhance teaching and learning
2. NEP highlights the importance of digital literacy for all learners. It supports NEP's goal of building digitally empowered learners
3. NEP encourages student-centered and personalized learning approaches. It aligns with NEP's focus on flexible and learner-centric education
4. NEP emphasizes continuous professional development using technology. This paper prepares future educators to integrate AI in teaching
5. NEP promotes hands-on, experiential and competency based education. This course includes practical use of digital tools and AI applications. It supports learning by doing

COs and Bloom's Taxonomy Level (BTL) Mapping for 26ED505

Course Outcomes	On successful completion of the course, the students will be able to	BTL
CO1	Explain the meaning, development, and role of Artificial Intelligence in the field of education.	K1 & K2
CO2	Apply the relationship between AI and Educational Technology and its importance in modern learning environments.	K3
CO3	Analyze and use different AI tools and platforms that support teaching, learning, and assessment.	K4
CO4	Evaluate how AI supports personalized learning and adaptive instruction for diverse learners.	K5
CO5	Create AI-based tools and strategies for developing innovative teaching materials and learning activities.	K6

Bloom's Taxonomy Level (BTL):- K1 and K2 – remembering and understanding, K3 - Applying, K4 – Analyse, K5 - Evaluate and K6- Create

Relationship Matrix

Course Outcomes	Programme Outcomes (POs)								Programme Specific Outcomes (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	3	2	2	1	1	1	2	1	3	2	2	2	2	2	1	1.8
CO2	3	3	2	1	2	1	3	2	3	3	1	1	3	2	1	2.1
CO3	3	3	3	1	2	1	3	2	3	2	2	2	3	2	1	2.2
CO4	3	3	2	2	2	2	3	2	3	3	2	2	3	2	2	2.4
CO5	3	3	3	2	3	2	3	3	2	3	2	2	3	3	2	2.6
Total																2.2

Mean Score: 3- High, 2- Medium/Moderate, 1-Low