

Course Code	Course Name	Credits
26ED004	AI TOOLS FOR TEACHING AND LEARNING	4

Course Objectives

The course aims to,

- ✓ Develop conceptual understanding of Artificial Intelligence and its role in education.
- ✓ Enable learners to use AI tools for effective lesson planning and content creation.
- ✓ Equip learners with skills to design AI-based assessment and feedback mechanisms.
- ✓ Promote the use of AI for personalized, collaborative, and inclusive learning.
- ✓ Foster ethical awareness and responsible use of AI in educational practices.
- ✓ Prepare learners to adapt to emerging trends and professional roles in the AI-driven education system.

Learning Outcomes

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

- ❖ Explain the concept, evolution, and significance of AI in education.
- ❖ Analyze the role of AI in enhancing teaching and learning processes.
- ❖ Design AI-supported lesson plans, teaching aids, and multimedia content.
- ❖ Develop and implement AI-based assessment tools for formative and summative evaluation.
- ❖ Apply AI technologies to support personalized, adaptive, and collaborative learning environments. .
- ❖ Evaluate ethical issues such as privacy, bias, and academic integrity in AI use.
- ❖ Critically analyze future trends of AI in education and their implications.

Unit 1 – Introduction to AI in Education (12 hours)

Meaning and concept of Artificial Intelligence in education-Role of AI in teaching and learning-Evolution of educational technology-AI and NEP 2020 (digital learning, personalization, accessibility).

Unit 2 – AI for Content Creation and Teaching (12 hours)

AI tools for lesson planning and teaching aids-Creating presentations, notes, and visual content -AI in multimedia learning

Unit 3 – AI for Assessment and Feedback (12 hours)

AI in evaluation and assessment-Formative and summative assessment using AI -Continuous and Comprehensive Evaluation (CCE).

Unit 4 – AI for Personalized and Collaborative Learning (12 hours)

Personalized learning and adaptive systems-AI in collaborative learning-AI for inclusive education.

Unit 5 – Ethical, Professional and Future Perspectives of AI in Education (12 hours)

Ethical issues in AI (privacy, bias, plagiarism)-Responsible use of AI in education-Teaching as a profession in the AI era-Future trends in AI and education.

Reference Books:

1. Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial Intelligence in Education: Promises and Implications for Teaching and Learning. Center for Curriculum Redesign.
2. Luckin, R. (2018). Machine Learning and Human Intelligence: The Future of Education for the 21st Century. UCL Institute of Education Press.
3. Selwyn, N. (2019). Should Robots Replace Teachers? AI and the Future of Education. Polity Press.
4. Woolf, B. P. (2021). Building Intelligent Interactive Tutors: Student-Centered Strategies for Revolutionizing E-Learning. Morgan Kaufmann.
5. Cruz-Benito, J. (Ed.). (2022). AI in Education. MDPI Publications.

Alignment with NEP – 2020

The proposed course **AI Tools for teaching and learning (26ED004)** is designed in alignment with the transformative vision of the National Education Policy 2020, which emphasizes holistic, multidisciplinary, skill-based, and research-driven education. Overall, the course reflects a modern, outcome-based, and NEP-compliant curriculum, suitable for NAAC accreditation and academic excellence frameworks.

1. Integration of AI with pedagogy
2. Practical use of AI tools
3. Strong focus on ICT and AI
4. Responsible AI usage
5. Analytical and reflective learning
6. Personalized and adaptive learning
7. Encouraging exploration of AI in education
8. Preparing learners for international standards

COs and Bloom's Taxonomy Level (BTL) Mapping for 26ED004

Course Outcomes	On successful completion of the course, the students will be able to	BTL
CO1	Explain the meaning and concept of Artificial Intelligence in education.	K1 & K 2
CO2	Apply AI in multimedia learning to enhance student engagement.	K 3
CO3	Analyze student performance using AI-generated feedback and data analytics.	K 4
CO4	Implement AI strategies to support inclusive education for diverse learners.	K 5
CO5	Design and Evaluate future trends and innovations in AI and their impact on education.	K 6

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	1	1	1	1	1	1	3	2	1	1	1	1	1	1.4
CO2	3	2	3	1	2	1	2	1	3	2	3	1	2	2	1	2.0
CO3	3	3	3	1	1	1	3	1	3	3	3	1	1	3	1	2.1
CO4	3	3	2	3	2	2	2	1	3	3	2	3	2	2	1	2.3
CO5	3	3	3	2	2	1	3	3	3	3	3	2	2	3	3	2.6
Total																2.1

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

