

Course Code	Course Name	Credits
26ED504	AI BASED ASSESSMENT AND EVALUATION IN EDUCATION	04

Course Objectives

The course aims to,

- ✓ Understand the concept of AI and its role in educational assessment.
- ✓ Examine the integration of AI in measurement and evaluation processes.
- ✓ Analyze AI-based assessment tools and learning analytics.
- ✓ Explore ethical and practical issues of AI in educational evaluation.
- ✓ Apply AI-supported strategies for improving educational evaluation and learning outcomes

Learning Outcomes

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

- ❖ Explain the basic concepts of Artificial Intelligence and its application in educational assessment.
- ❖ Identify different AI tools and platforms used for educational measurement and evaluation.
- ❖ Analyze how AI can enhance test construction, scoring, and feedback mechanisms.
- ❖ Evaluate the benefits, challenges, and ethical issues of AI-based assessment systems.
- ❖ Design and create AI-supported strategies for improving educational evaluation and learning outcomes.

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

Meaning and concept of Artificial Intelligence - Development of AI in education - Relationship between AI and educational technology - Importance of AI in educational measurement and evaluation.

Unit 2 – Basics of Educational Measurement and Evaluation (12 hours)

Meaning of measurement, assessment, and evaluation - types of assessment - formative and summative - traditional methods of evaluation - limitations of conventional evaluation methods

Unit 3 - AI Based Assessment Tools (12 hours)

Intelligent tutoring systems - AI-based testing platforms - Automated grading systems - Computer-based and adaptive testing - AI in question generation and item analysis

Unit 4 – Learning Analytics and Data Driven Evaluation (12 hours)

Meaning of learning analytics - AI for tracking student performance - predictive analytics in education - personalized feedback and progress monitoring - role of AI in improving teaching and assessment

Unit 5 - Ethical Issues and Challenges (12 hours)

Data privacy and security in AI systems - Bias and fairness in AI-based evaluation - teacher's role in AI-supported assessment - challenges and limitations of AI in educational evaluation - future trends of AI in assessment

Reference Books:

1. Artificial Intelligence in Education: Promises and Implications for Teaching and Learning – Wayne Holmes, Maya Bialik & Charles Fadel.
2. Artificial Intelligence in Education – Rose Luckin. Educational Technology: Principles and Practice – S. K. Mangal & Uma Mangal.
3. UNESCO (2019). Artificial Intelligence in Education: Challenges and Opportunities.
4. National Council of Educational Research and Training (NCERT). ICT and Educational Technology materials.

Alignment with NEP – 2020

The proposed course **AI Based Assessment and Evaluation in Education (26ED504)** is designed in alignment with the transformative vision of the National Education Policy 2020.

1. NEP 2020 emphasizes competency based formative and holistic assessment. This course introduced AI –driven assessment tools for continuous evaluation. Align with NEP's vision of transforming assessment practices.
2. NEP promotes integration of digital technology in evaluation systems. It supports NEP's goal of technology enabled education.
3. NEP encourages individualized learning and evaluation. It aligns NEP's focus on learner-centered education.
4. NEP highlights the use of data for improving learning outcomes. This course aligns with NEP's emphasis on data-informed education systems.
5. NEP promotes equitable and inclusive education. This course uses AI to create accessible assessment tools and supports learners with diverse needs and abilities. It aligns with NEP's goal of education for all.

COs and Bloom's Taxonomy Level (BTL) Mapping for 26ED504

Course Outcomes	On successful completion of the course, the students will be able to	BTL
CO1	Explain the basic concepts of Artificial Intelligence and its application in educational assessment.	K1 & K2
CO2	Apply different AI tools and platforms used for educational measurement and evaluation.	K3
CO3	Analyze how AI can enhance test construction, scoring, and feedback mechanisms.	K4
CO4	Evaluate the benefits, challenges, and ethical issues of AI-based assessment systems.	K5
CO5	Create and design AI-supported strategies for improving educational evaluation and learning outcomes	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	1	1	1	1	2	1	3	2	1	1	2	2	1	1.6
CO2	3	2	2	1	2	1	3	1	3	3	2	2	3	2	1	2.1
CO3	3	3	2	2	2	1	3	2	3	3	2	2	3	3	1	2.3
CO4	2	3	2	3	2	2	2	1	2	3	2	3	2	2	3	2.3
CO5	3	3	3	3	3	2	3	3	3	3	3	3	3	3	2	2.9
Total																2.3

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