

ITL-814: Applied AI for Smart Education Systems			
Credit Hours:	3+0	Prerequisites:	None
Course Objectives:			
<p>This course aims to equip students with a practical understanding of how artificial intelligence technologies can be used to enhance education. It introduces key AI concepts while emphasizing the application of existing tools and platforms. The course seeks to develop students' ability to critically evaluate and integrate AI-driven educational technologies, including intelligent tutoring systems, recommendation engines, learning analytics, and adaptive learning platforms. Through hands-on experience and case-based discussions, students will learn to align AI tools with pedagogical goals, assess the ethical implications of AI in education, and explore the potential of AI to personalize, automate, and scale learning interventions in diverse contexts.</p>			
Course Contents:			
<ul style="list-style-type: none"> • Introduction to AI in Education • Adaptive Learning Technologies • Learning Analytics & Prediction Models • Recommendation Systems in Education • Natural Language Processing Applications • Speech and Emotion Recognition • AI for Assessment and Feedback • AI for Student Support & Engagement • Human-AI Collaboration in Teaching • AI Integration with LMS and Content Management Systems • Ethics of AI Use in Classrooms: Policy, Bias, and Data Privacy 			
Course Learning Outcomes:			
<p>At the end of the course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Explain fundamental AI concepts and their role in enhancing teaching, learning, and educational systems. 2. Apply AI methods such as adaptive learning, learning analytics, and recommendation systems to real educational contexts. 3. Analyze ethical, social, and pedagogical implications of AI adoption in classrooms, focusing on bias, privacy, and equity. 			

4. Design and implement a semester project that demonstrates the practical application of AI to solve an educational challenge

Reference Materials/ Books:

1. *A Beginner's Guide to Introduce Artificial Intelligence in Teaching and Learning*, by Muralidhar Kurni, Mujeeb Shaik Mohammed, and Srinivasa K G, Springer,
2. *Teaching with AI: A Practical Guide to a New Era of Human Learning*, by José Antonio Bowen and C. Edward Watson, Johns Hopkins University Press, 2024
3. *The AI Classroom: The Ultimate Guide to Artificial Intelligence in Education*, by Dan Fitzpatrick, Amanda Fox, Brad Weinstein, 2023