

ITL-815: Generative AI in Education			
Credit Hours:	3+0	Prerequisites:	None
Course Objectives:			
<p>This course is designed to provide students with a comprehensive understanding of how generative AI technologies, such as large language models, image generation tools, and conversational agents, can transform teaching and learning practices. The primary objective is to help students explore the capabilities, limitations, and pedagogical affordances of generative AI tools for curriculum design, content creation, assessment, and student engagement. Students will engage in critical analysis and hands-on exploration of GenAI tools to learn how they can support teachers, augment learners' creativity, and create inclusive and personalized learning experiences. The course also encourages reflective consideration of the ethical, cognitive, and social dimensions of using generative AI in education.</p>			
Course Contents:			
<ul style="list-style-type: none"> • Introduction to Generative AI and Its Role in Education • Using Text Generators for Lesson Planning and Summarization • Prompt Engineering: Best Practices for Educational Use • Content Creation with Generative AI: Slides, Notes, Quizzes • AI-Driven Feedback Systems and Rubric-Based Assessment Tools • Designing Chatbots as Learning Assistants (No-code Platforms) • Visual Content Generation Tools • Adaptive Learning Pathways using AI Recommendations • Exploring LLM Plugins and Add-ons for LMS Integration • Ethical Issues in Generative AI: Plagiarism, Misinformation, Data Use 			
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 generative AI concepts and analyze their role in lesson planning, assessment, and personalization. 2. Apply prompt engineering and tools to create instructional content such as slides, quizzes, and visuals. 3. Design and evaluate AI-driven solutions like chatbots and adaptive learning pathways. 			

4. Demonstrate understanding through a semester project applying generative AI to an educational challenge.

Reference Materials/ Books:

1. *Generative AI in Teaching and Learning*, by Shalin Hai-Jew, IGI Global, 2024
2. *Generative AI and Education: Digital Pedagogies, Teaching Innovation and Learning Design*, by B. Mairéad Pratschke, Springer, 2024
3. *Generative AI in Higher Education: Innovation Strategies for Teaching and Learning*, by Adebowale Owoseni, Oluwaseun Kolade, Abiodun Egbetokun, Palgrave Macmillan, 2024