Module Syllabus

Effective Use of Generative AI (ChatGPT Essentials)

Term	Fall

1. Course Description

- "The Effective Use of Generative AI (ChatGPT Essentials)" is a brief course designed to help students explore and appreciate various tools that can accelerate idea generation.

2. Course Objectives

- Understanding Generative AI
    - Define Artificial Intelligence (AI), Machine Learning (ML), and Generative AI
    - Identify real-life applications of Generative AI

- How Generative AI Works
    - Explain how Large Language Models (LLMs) and Diffusion Models generate outputs
    - Understand the concepts of tokens and prompts

- Practical Tools & Hands-on Exploration
    - Explore commonly used generative AI tools (e.g., ChatGPT, DALL·E, Canva AI features)
    - Practice crafting effective prompts for different use cases
    - Experiment with creating text, images, and other outputs using generative AI tools

- Ethics, Bias, and Limitations
    - Discuss ethical considerations when using Generative AI

o   Recognize and analyze bias in AI-generated content
o   Identify the limitations and risks of relying on AI tools

3. Module Topics and Content

Topics and Content	Class Activities - 1 hour	Assessment – 1 hour
Class 1 ***Understanding Generative AI*** • *Define AI, Machine Learning, and Generative AI* • *Identify real-life applications of Generative AI*	**Warm-up (10 min):** Ask, *"Where do you think AI is used today?"* Write responses on a board. **Presentation (20 min):** • AI → Machine Learning → Deep Learning → Generative AI • Brief history: GANs, Transformers, Diffusion models **Demo (15 min):** Generate text using ChatGPT (short poem) and image with DALL·E. **Brainstorm (15 min):** In small groups, list **5 innovative uses of Generative AI** in different industries.	***Generative AI in Action*** • ***Recognize various types of Generative AI outputs*** • ***Understand the diversity of tools*** **Showcase (15 min):** Examples of text, image, music, and video AI outputs **Matching Game (15 min):** Provide a list of tools (ChatGPT, MidJourney, Runway ML, ElevenLabs) and have students match to their functions **Discussion (15 min):** Talk about how these tools could impact students' future careers **Reflection (15 min):** Individual writing: "What excites me the most about Generative AI?"
Class 2 ***How Generative AI Works*** • *Explain how LLMs and diffusion models generate outputs* • *Understand the concept of tokens and prompts*	**Presentation (20 min):** • How neural networks learn patterns • LLM basics: tokens, embeddings, attention • Diffusion for image generation (simplified) **Visual Demo (10 min): Animated explanation of GPT and Stable Diffusion** **Group Exercise (20 min):** • Show a sentence and ask: *"How do you think AI predicts the next word?"*	**Learning Objectives:** • ***Understand the importance of prompts*** • ***Experiment with prompt variations*** **Activities:** Hands-on Prompting (30 min): • Generate 3 different outputs using ChatGPT with slightly different prompts • Compare how changing wording affects results **Discussion (15 min):** Share findings on what makes prompts effective **Mini Reflection (15 min):** "Why is prompt engineering an important skill?" **Assessment:**

		Students submit 3 outputs and their corresponding prompts
Class 3 *Practical Tools & Hands-on Exploration*	**Learning Objectives:** • Identify and use key Generative AI tools • Compare capabilities across platforms **Activities:** **Demo Tour (30 min):** • Text: ChatGPT • Image: DALL·E / Canva AI • Audio/Video: Runway ML / ElevenLabs • Code: GitHub Copilot **Hands-on Exploration (30 min):** • Students create 1 text and 1 image output • Try an optional audio/video generation	**Combining Modalities** **Learning Objectives:** • Create multi-modal AI content • Evaluate strengths and weaknesses of tools **Activities:** **Mini Project (45 min):** • Task: Create a short illustrated story using ChatGPT + DALL·E • Optional: Add AI-generated voice narration **Peer Review (15 min): Share stories and give feedback** **Assessment:** • Students present their AI-generated story to peers
Class 4 *Ethics, Bias, and Limitations*	**Responsible AI Use** **Learning Objectives:** • Recognize ethical risks and biases in AI • Understand copyright and misinformation concerns **Activities:** **Case Study (20 min)**: Recent deepfake or AI misuse news example **Discussion (20 min):** • Why bias occurs in AI • Risks of misinformation and plagiarism **Debate (20 min):** "Should AI-generated content always be labeled?"	**Guidelines & Reflection** **Learning Objectives:** • Develop guidelines for ethical AI use **Activities:** • **Group Activity (30 min):** Create 3 responsible AI usage rules for students • **Reflection Journal (15 min): "**How will I use AI responsibly in my projects?" • **Instructor Wrap-Up (15 min):** Key takeaways and upcoming final project
Class 5 *Final Project & Presentation*	**Project Work** **Learning Objectives:** • Apply Generative AI tools creatively to a project	**Learning Objectives:** • Communicate AI-generated work effectively • Reflect on learning experience

	Activities:	**Activities:**
	Mini Project (90 min): **Students choose one:** • AI-generated short story with illustrations • Marketing campaign with images and copy • Simple chatbot persona concept • AI-assisted music video (optional)	**Presentations (45 min):** Students showcase projects **Feedback & Evaluation (15 min):** Peer + instructor feedback **Course Reflection (30 min):** • Write 3 key skills learned • Share 1 way they'll continue exploring Generative AI **Assessment Criteria:** • Creativity & originality • Effective use of AI tools and prompts • Ethical considerations included • Presentation clarity

5. Course Requirements

A. Compulsory research and practice
Research is imperative in this course. Students need to keep abreast with latest products and technologies available.

B. Oral Tasks
During each class the students will have to present tasks in groups as assigned during the session.

C. Class Participation
On the final session, groups are invited to present their work and discuss with the classmates on their innovative and creative thinking of using generative AI.

Participation is assessed as a part of the final grade. Only active and effective meaningful contributions and active discussion will be considered for grading. Students are invited to present cases or prototypes where generative AI can be helpful within the industry.

NOTE: *Absences from the class (excused or unexcused) will negatively affect the participation grade.*

CLASS PARTICIPATION RUBRIC:

Consistent participation, preparation and a positive attitude are a vital part of learning. Students can earn up to 20 points in each category (100 points total)!

Category	Excellent 18-20 points	Good 15-17 points	Satisfactory 12-14 points	Needs Improvement 9-11 points
Contributions	**Routinely** provides useful ideas when participating in the	Usually provides useful ideas when participating in	Sometimes provide useful ideas when participating in	Rarely provides useful ideas when participating in classroom discussion.

	classroom. A definite leader who contributes a lot of effort and who makes class discussions better.	classroom discussion. A strong student who tries hard.	classroom discussion. A satisfactory student who does what is required.	May refuse to participate or is frequently absent from class.
Attitude	Student is always respectful of his or herself, others, and teacher, has a positive attitude, and does not criticize anyone else's ideas or work. Students feel safe participating in her presence.	Rarely is critical of ideas or work of others. Often has a positive attitude about the task(s). Usually treats others and self with respect.	Often or occasionally has a positive attitude about the task(s) and behaves in a respectful manner.	Often is critical of the work or ideas of others. Rarely behaves in a respectful manner.
Preparedness & Focus	Always comes to class on time, follows all classroom procedures, brings needed materials to class and is always in her seat ready to work before the bell rings. Consistently stays focused on in-class work and what needs to be done. Self-directed and highly motivated.	Very rarely late, almost always brings needed material to class, almost always follows classroom procedures and is ready to work by the bell. Focuses on in-class work and what needs to be done most of the time.	Sometimes late to class, often brings materials but sometimes needs to borrow. Usually follows procedures and is usually in her seat ready to work by the bell. Focuses on the task and what needs to be done some of the time. Often must be reminded by the teacher about what needs to get done.	Frequently late to class, rarely brings needed materials and/or is rarely ready to get to work by the start of class. Has difficulty focusing on class work and procedures.
Quality of Work	Provides work of the highest quality that reflects the student's best efforts.	Provides quality work that reflects effort from the student.	Provides work that meets the requirements, but more effort or time could have been given.	Provides sloppy work that reflects very little effort or does not turn in any work.
Behavior	Student is awake and engaged in class on a daily basis. Student shows no disruptive behavior.	Student is awake and engaged in class nearly every day, and shows no disruptive behavior.	Student is awake most of the time but has fallen asleep or has been distracting for a few classes.	Student frequently sleeps and/or disrupts class.
				Total _____/100

6. Attendance

80% attendance is compulsory. Students who miss more than 20% of classes without a justified reason (e.g. medical certificate) will automatically fail the course.