

# Understanding Generative AI in Education

## What is Generative AI (GenAI)?



A type of artificial intelligence that generates new content such as images, videos, text, and audio using patterns found in existing data.

### How It Works



#### Forming a Database

Collects large volumes of data from the internet & other sources to identify patterns and structures.



#### Inputting a Prompt

User provides instructions or questions to guide the AI's output.



#### Generating Content

AI combines patterns and context from its data to produce original responses or media.

### Key Considerations



#### Accuracy Risks

AI can produce incorrect or fabricated information. Always verify facts and sources.



#### Understand Limitations

AI lacks human judgment and context. It may misinterpret nuance and often uses outdated data.



#### Ethical Implications

AI-generated content can carry bias, privacy risks, and fairness issues. Models are trained on large datasets that may reflect biases and may include sensitive data.



#### Risk of Overreliance

AI cannot replace human expertise or pedagogical insight; overuse can weaken learning quality.



#### Environmental Impact

AI systems consume significant energy and water for data processing and cooling.

### Why Faculty Should Explore GenAI

#### Model Ethical AI Use

Guide students in responsible practices, academic integrity, data privacy, and ethical decision-making for your particular discipline.

#### Enhance Learning & Efficiency

Use AI to adapt content for diverse needs, improve accessibility, simplify complex topics, and streamline tasks like drafting and summarizing.

#### Equip Students for the Future

Integrate AI to build skills in digital literacy, problem-solving, and collaboration for an AI-driven workforce.



### Try and Learn

See our website and Liguides for guidance on using GenAI tools like ChatGPT, MS Copilot, Gemini & Perplexity  
[UHD.EDU/CTLE](http://UHD.EDU/CTLE)



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