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Jindal Global Business School  
*Course Outline*

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Course Title	Generative AI: Introduction and Applications
Core or Elective course	Elective
Program and Batch	BBA-3, BBA-BA-3, BBA-FB-3, BBA-FM-3
Semester & Academic Year	Spring 2026
Credits	3
Discipline/ Area	IS & Analytics
Name of the Faculty Member(s)	Prof. Sandeep Kumar Singh Prof. Syed Abdullah Ashraf
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Faculty Member's Open Office Day/s & Time	TBD

### Introduction to the Course

Generative AI is revolutionizing industries by enabling users to create content, automate workflows, and enhance decision-making—without requiring programming expertise. This course, Generative AI: Introduction and Applications, is designed for professionals, students, and business leaders who want to harness the power of AI using intuitive no-code tools. Participants will explore various generative AI models, their applications in different domains, and practical strategies to integrate AI-driven solutions into their workflows—all without writing a single line of code. Replit and Gradio will be used to demonstrate concept of vide-coding.

### What you'll learn:

**The fundamentals of Generative AI:** Demystify the concepts behind this revolutionary technology and understand its core principles.

**Real-world applications:** Discover how Generative AI is transforming various industries, from design and art to drug discovery and software development.

**Hands-on experience:** Gain practical skills through interactive exercises and projects, using real-world tools and techniques, empowering you to unlock the potential of Generative AI.

### Course Learning Objectives

At the end of the course, students should be able to

1. **CLO1** → **analyze and explain** the fundamentals of generative AI, differentiating it from other AI approaches. *(Analyze/Understand)*

2. **CLO2** → **apply and experiment** with no-code generative AI tools (e.g., ChatGPT, DALL·E, KNIME, Zapier) to solve practical problems. *(Apply)*

3. **CLO3** → **design and implement** AI-driven solutions for business, marketing, and creative applications. *(Create)*

4. **CLO4** → **evaluate and propose** responsible strategies for AI adoption, addressing ethical and social implications. *(Evaluate)*

5. **CLO5** → **practice adaptability and self-directed learning** with evolving AI tools, building future-ready career skills. *(Meta-cognition/Apply/Create)*

### Programme Competency Goals

BBA Programme Competency Goals (PCGs)		BBA Programme Learning Objectives (PLOs)
		Students will be able to
1	<b>Responsible Global Citizenship:</b> Ability to understand the interplay between local and global issues and to act with sensitivity towards ethical and social issues	1. Understand local business issues
		2. Understand global business issues
		3. Demonstrate sensitivity towards ethical issues
		4. Demonstrate sensitivity towards social issues
2		5. Present their ideas with clarity
		6. Write in a coherent manner

	<b>Effective communication:</b> Ability to effectively exchange ideas and information	7. Use technology for communication
3	<b>Critical Thinking:</b> Ability to identify, analyze business problems and propose effective solutions	8. Identify main issues of business problems
		9. Examine information from different sources
		10. Draw inferences from analysis
4	<b>Teamwork:</b> Ability to work and contribute effectively in group -settings	11. Understand the factors to work effectively in groups
		12. Contribute effectively in groups

### PLO-PCG Assessments Mapping Matrix

Program Learning Objectives (PLOs)	Program Competency Goals (PCGs)	Course Assessment Item
This course helps you to develop the following Program Learning Outcomes:	This course helps you to develop the following Program Competency Goals:	This learning outcome will be assessed in the following items
PLO1, PLO2, PLO7, PLO8, PLO9	PCG1, PCG2, PCG3	A1
PLO1, PLO2, PLO5, PLO6	PCG1, PCG2,	A2
PLO3, PLO4, PLO5, PLO6, PLO7, PLO8-10, PLO11, PLO12	PCG2, PCG3, PCG4	A3
PLO1, PLO2, PLO8-PLO10	PCG1, PCG3	A4
PLO1-4, PLO8-PLO10	PCG1, PCG3	A5

### Evaluation Schema

The course grade will be determined based on:

Assessment Task	Weightage (Percentage)	Nature (Individual/Group)	Week of Assessment	PLOs to be Assessed
A1: Class Participation	10%	Individual	Ongoing	PLO1, PLO2, PLO7, PLO8, PLO9
A2: Quiz	20 %	Individual	4 <sup>th</sup> Week and 10 <sup>th</sup> Week	PLO1, PLO2, PLO5, PLO6
A3: Term Projects	20%	Group	14 <sup>th</sup> -15 <sup>th</sup> Week	PLO3, PLO4, PLO5, PLO6,

				PLO7,PLO8-10, PLO11, PLO12
A4: Midterm Exam	20 %	Individual	Mid-term Week	PLO1, PLO2, PLO8-PLO10
A5: Final Exam	30%	Individual	JGU Examination period	PLO1-4, PLO8-PLO10

### Description of Assessments:

**A1- Class Participation:** Students are expected to be attentive in class and participate in classroom.

**A2- Quiz:** There will be two in-class MCQ-based quizzes. These closed-book quizzes will test concepts learned in the course up to that point. The quiz will be UMS based.

**A3- Term Project on Generative AI in businesses:** Submit a report and do a group presentation of a use case of Generative AI enabled technologies by discussing various dimensions and issues related to financial, ethical, social, and legal areas.

• **Type:** Group Submission (4 members in a group)

**Stage 1- Two-page proposal submission of the project-** Choice of technology, company name, and methods of data collection, rationale for case selection, issue identification and analysis process. If needed, feedback incorporation in the final report. **(5 Marks/ Deadline- Announced during class).**

#### Stage 2- Report Submission and presentation (15 Marks)

• **Details:** Choose Generative AI technology enabled business models/ processes in either manufacturing or service industry. The business models/ processes include manufacturing, marketing, human resource management, supply chain management, and service delivery. Conduct detailed research on a company which has implemented the technology and prepare a report in the context of the company's business.

• **Content focus:** The report must outline the following sections: (a) description of the chosen technology and business model of the company (b) market need for choosing and implementing the technology; (c) the implementation process and implications for managers; (d) associated social issues & ethical issues and how to mitigate the risks; (e) references from websites, research journals, industry magazines, reports & white papers. The references must support the description under various sections. The references must be in-line citations mentioning name of author and year in brackets

(e.g., Verma et al, 2017) and listed at the end of report as per APA format. The report must be checked for plagiarism.

- **Report submission:** Report must be of 8-10 pages (excluding references and plagiarism report) in MS Word/PDF format. Report must be formatted in Times New Roman font/ Arial, font size 12, with 1.5 line spacing, and 3000-word limit with illustrations.

- **Timeline:** Stage one report proposal submission- **Announced during class**. Stage two- Report submission **Announced during class**. Late submissions will not be evaluated and awarded zero marks. For genuine circumstances, individual faculty may upon their discretion, allow late submissions with a penalty of 15% marks.

### **Stage 3- Presentation in last two weeks of the course.**

Presentation & PPT preparation instructions-

- Less text in PPT,
  - Focus should be on analysis,
  - All members should participate equally in class presentation,
  - Questions and answers from term paper presentation,
  - Clearly mention about the different headings of the business process in the reports,
  - Groups need to upload all PPTs before presentation date on UMS link and update PPTs based on feedback.
  - Prepare for 10-15 minutes of presentation- 10-12 minutes for presentation and 2-5 minutes for Questions and answers.
- Mode of submission of report and PPTs: UMS submission link shall be communicated by faculty.

**A4 - Mid-term examination** – Mid-term examination will be of 20 marks and 90 minutes to be conducted during mid-term week. This will be a pen and paper invigilated exam held on the JGU campus.

**A5- End term examination-** End term examination will be of 30 marks and 1.5 hours to be conducted during end-term week. This will be an invigilated exam held on the JGU campus according to the mode decided by CoE.

### **Rubric for Term project Assessment (A3)**

#### **Quiz 1 & 2 (MCQ)**

Score Range	Performance Description
10 - 9	Excellent understanding of AI concepts, terminology, and no-code tools.
8 - 7	Good understanding, a few minor errors in responses.
6 - 4	Basic understanding but some key concepts misunderstood.

3 - 0	Poor understanding, significant misconceptions in AI fundamentals.
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### Rubric for Term project Assessment (A3)

	<b>Poor (0-5)</b>	<b>Average (5-10)</b>	<b>Above average (10-15)</b>	<b>Distinction (15-20)</b>
<b>Research</b> Quality & variety of tools used for analysis <b>(5 Marks)</b>	Minimal analysis with insufficient number of tools and techniques used for analysis.	Acceptable analysis with minimum number of tools and techniques used for analysis	Sufficient analysis with adequate number of tools and techniques used for analysis	Analysis with meaningful insights and more than relevant number of tools and techniques
<b>Quality/Robustness of analysis</b> Quality of analysis with respect to such as time horizon, peer group comparison, industry analysis etc. <b>(5 Marks)</b>	Insufficient quality without a robust analysis	Acceptable quality and robustness of analysis	Good quality and robustness of analysis	Excellent quality and robustness of analysis.
<b>Logical flow</b> Organisation of ideas; Ability to sustain audience interest. <b>(5 Marks)</b>	Not attempted or entirely or significantly plagiarized from other sources.	Organisation of ideas generally clear. Presentation displays basic use of techniques (examples / headings / visuals etc) to develop audience interest.	Organisation of ideas clear. Presentation uses a variety of techniques (examples / headings / visuals etc) that are used well to sustain audience interest.	Organisation of ideas extremely clear. Presentation solidly uses varied and innovative engagement techniques (examples / headings / visuals etc) to sustain audience interest.
<b>Attention to Detail</b> <ul style="list-style-type: none"> <li>• Group cohesion/synergy</li> <li>• Clarity of speech /eyecontact / pacing &amp;enthusiasm</li> <li>• Visual tools (e.g.,PowerPoint slides)</li> <li>• Dress standard</li> <li>• Citations and</li> </ul>	The problems in one or more of the areas listed prevented audience understanding. References were absent from visuals.	The problems in one or more of the areas listed impacted audience understanding.	Group performance in all areas listed considerably assisted audience understanding.	Group performance in all areas listed was of a high quality and greatly assisted audience understanding.

### Teaching Method

The course will have a judicious mix of lectures, storytelling, experiential exercises, and cases. Here the onus of learning will be with the student, and the instructor will be a facilitator. Instead of learning ‘what to do’, the cases will also be used as examples of real-world phenomena where issues arise, and good and bad practices are seen. The key to learning this way is to see many examples and situations and learn inductive as well as deductive ways from students’ and managers' different experiences.

### Recommended textbook.

1. Amit Bahree, **Generative AI in Action**, 2024, Manning Publications Co.
2. Sanket Subhash Khandare, **Mastering Large Language Models**, 2024 BPB Online.
3. Gilbert Mizrahi, **Unlocking the Secrets of Prompt Engineering**, 2023 Packt Publishing.
4. Valentina Alto, **Modern Generative AI with ChatGPT and OpenAI Models**, 2023 Packt Publishing.

### Other references

1. David Clinton, **The Complete Obsolete Guide to Generative AI**, 2023, MEAP.
2. Articles and case distributions in class.
3. Divit Gupta, Anushree Srivastava, **The Potential of Generative AI**, 2024 BPB Online.
4. HRB articles- **Generative AI**

### Guest Lecture

Emilio Silvestri	Data Scientist, Accenture

### Session Plan

Session Details	Topics	PLOs Covered
<b>Session 1</b>	<b>Introduction to Generative AI</b>	PLO1, PLO2
Objective of the session	Course Introduction & Generative Models Foundations 1. An introduction to generative AI 2. A comparison between generative AI and other AI types (Supervised, Unsupervised) 3. <i>Think–Pair–Share</i> : “Where have you seen AI in daily life?”	
Subtopics to be covered	Intelligence, Traditional AI	
Readings	TB1-Chapter 1: <b>Generative AI in Action</b>	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	

Session 2	Historical Context and Evolution	PLO1, PLO2
Objective of the session	1. History of AI and machine learning 2. Key milestones in generative AI	
Subtopics to be covered	1. Early developments in generative models. 2. Key breakthroughs (e.g., Generative Adversarial Networks, GPT models).	
Readings	Handout to be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 3	Large Language Models (LLMs) Basics	PLO5, PLO6, PLO7
Objective of the session	Describe how LLMs work as autoregressive next-token predictors, pre-training on large corpora, and commonly used architectures.	
Subtopics to be covered	1.Definition and significance of prompt engineering in generative AI. 2.The role of prompts in shaping model outputs. 3.How prompt engineering differs for various generative models (e.g., GPT, Codex). <i>Active Demo:</i> students test prompts live with ChatGPT	
Readings	TB3 - Mizrahi, <i>Prompt Engineering</i>	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 4	Prompt Engineering (I)	PLO5, PLO6, PLO7
Objective of the session	Role of prompts, examples across models	
Subtopics to be covered	1.Definition and significance of prompt engineering in generative AI. 2.The role of prompts in shaping model outputs. 3.How prompt engineering differs for various generative models (e.g., GPT, Codex). <i>Active Demo:</i> students test prompts live with ChatGPT	
Readings	TB3 - Mizrahi, <i>Prompt Engineering</i>	
Case Title & Number	Not Applicable	
Pedagogy	Lectures, and class discussions	
Session 5	Prompting and In-Context Learning	PLO5, PLO6, PLO7
Objective of the session	Exploring Effective Prompt Design: Learn how to create effective prompts to achieve desired outputs and handle various use cases.	
Subtopics to be covered	Components of a Good Prompt:	

	<ul style="list-style-type: none"> <li>Understanding prompt structure: Context, task description, constraints, and examples.</li> <li>Tips for crafting precise and effective prompts: Clarity, specificity, and guidance.</li> </ul> <p>Use of delimiters, keywords, and phrasing to control outputs.</p>	
Readings	TB3 - Mizrahi, <i>Prompt Engineering</i>	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 6</b>	<b>Ethics of Generative AI (I)</b>	PLO3, PLO4
Objective of the session	<p><b>1. Understanding the Ethical Implications of Generative AI:</b> Discuss the potential ethical challenges and considerations when using generative AI models.</p> <p><b>2. Exploring Bias, Fairness, and Transparency:</b> Understand how biases can manifest in generative models and how to promote fairness and transparency.</p>	
Subtopics to be covered	<p>1. Definition and importance of ethics in the context of AI and machine learning.</p> <p>2. Overview of key ethical principles: Accountability, fairness, transparency, and privacy.</p> <p>3. Sources of bias in generative models: Data collection, model training, and human oversight.</p> <p>4. Types of biases: Gender, racial, cultural, and socio-economic biases.</p> <p>□ <i>Debate:</i> “Are generative AI models inherently biased?”</p>	
Readings	TB1 - Chapter 12: Mastering Large Language Models	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 7</b>	<b>Ethics of Generative AI (II)</b>	PLO3, PLO4
Objective of the session	<p><b>1. Addressing Privacy and Security Concerns:</b> Identify privacy risks and security vulnerabilities associated with generative AI.</p> <p><b>2. Implementing Responsible AI Practices:</b> Learn strategies and frameworks for implementing responsible AI to mitigate ethical risks.</p>	
Subtopics to be covered	<p>1. Overview of responsible AI frameworks and guidelines (e.g., EU AI Act).</p> <p>2. Establishing ethical guidelines and AI ethics committees.</p> <p>3. Integrating ethics into AI development life cycle: Design, deployment, and post-deployment monitoring.</p>	

Readings	TB1 - Chapter 12: Mastering Large Language Models	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 8	Hand On session-1	PLO1, PLO2
Objective of the session	Experiential Learning through business case/ problems exercise.	
Subtopics to be covered	Evolution of Generative AI in last Decade	
Readings	Not Applicable	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 9	Generative AI for programming (I)	PLO8, PLO9, PLO10
Objective of the session	<b>Understanding How Generative AI Assists in Programming:</b> Explain the role of generative AI in automating coding tasks, generating code snippets, and enhancing developer productivity.	
Subtopics to be covered	1.Overview of how generative AI is transforming software development. 2.Differences between traditional programming and AI-assisted programming. 3.Potential benefits for non-programmers and business professionals. <i>Demo:</i> Vibe Coding	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 10	Generative AI for programming (II)	PLO8, PLO9, PLO10
Objective of the session	<b>Examining Use Cases and Applications:</b> Discuss practical applications of generative AI for software development, including code generation, refactoring, and documentation. <b>Addressing Challenges and Limitations:</b> Identify the challenges and limitations of using generative AI in programming, such as security risks, reliability, and interpretability of generated code.	
Subtopics to be covered	<ul style="list-style-type: none"><li>Popular tools and platforms: GitHub Copilot, ChatGPT</li></ul>	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	

Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 11</b>	<b>Generative AI for Data Analytics (I)</b>	PLO8, PLO9, PLO10
Objective of the session	<p><b>Understanding the Role of Generative AI in Data Analytics:</b> Explore how generative AI can automate and enhance various data analytics tasks such as data generation, data augmentation, and analysis.</p> <p><b>Exploring Techniques for AI-Powered Data Analysis:</b> Learn about the different generative AI techniques and models used for data analytics, including predictive modeling and scenario analysis.</p>	
Subtopics to be covered	<p>1. Overview of how generative AI intersects with data analytics.</p> <p>2. Key differences between traditional analytics and generative AI-based analytics.</p> <p>3. Benefits of using generative AI for data-driven business decisions.</p>	
Readings	Hand outs will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 12</b>	<b>Generative AI for Data Analytics (II)</b>	PLO8, PLO9, PLO10
Objective of the session	<p><b>Implementing Generative AI for Business Intelligence:</b> Discuss practical applications of generative AI in business intelligence and data-driven decision-making.</p> <p><b>Addressing Challenges in Using Generative AI for Analytics:</b> Identify limitations, ethical concerns, and best practices when using generative AI for data analysis.</p>	
Subtopics to be covered	<p><b>Data Generation and Augmentation:</b> Using generative models to create synthetic data to supplement existing datasets, handle class imbalances, and simulate scenarios.</p> <p><b>Data Imputation:</b> Filling in missing values and correcting anomalies in data.</p> <p><b>Scenario Analysis and Forecasting:</b> Utilizing generative AI for predictive analytics, forecasting, and what-if scenario modeling.</p>	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 13</b>	<b>Generative AI for Data Analytics (III)</b>	PLO8, PLO9,

Objective of the session	<b>Implementing Generative AI for Business Intelligence:</b> Discuss practical applications of generative AI in business intelligence and data-driven decision-making. <b>Addressing Challenges in Using Generative AI for Analytics:</b> Identify limitations, ethical concerns, and best practices when using generative AI for data analysis.	PLO10
Subtopics to be covered	<b>Data Generation and Augmentation:</b> Using generative models to create synthetic data to supplement existing datasets, handle class imbalances, and simulate scenarios. <b>Data Imputation:</b> Filling in missing values and correcting anomalies in data. <b>Scenario Analysis and Forecasting:</b> Utilizing generative AI for predictive analytics, forecasting, and what-if scenario modeling.	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 14</b>	<b>Guest Lecture-I</b>	PLO1, PLO2
Objective of the session	GenAI in Practice	
Subtopics to be covered	To familiarise students with real world use cases of Generative AI in Data Analytics.	
Readings	Not Applicable	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture	
<b>Session 15</b>	<b>Hands On Session-2</b>	PLO11, PLO12
Objective of the session	Workshop 2: Text generation for business & creative tasks	
Subtopics to be covered	□ <i>Mini-Lab:</i> write marketing copy, compare human vs. AI drafts	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 16</b>	<b>LLM Agents I</b>	PLO3, PLO4
Objective of the session	<b>Understanding LLM Agents:</b> Introduce the concept of LLM (Large Language Model) agents, their architecture, and how they function as autonomous agents for complex tasks.	

Subtopics to be covered	1.Definition and significance of LLM agents. 2.Overview of the evolution from LLMs to LLM agents. 3.How LLM agents differ from traditional AI models and chatbots. <input type="checkbox"/> <i>Discussion:</i> compare LLM agents vs. chatbots	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 17</b>	<b>LLM Agents II</b>	PLO3, PLO4
Objective of the session	<b>Understanding LLM Agents:</b> Introduce the concept of LLM (Large Language Model) agents, their architecture, and how they function as autonomous agents for complex tasks.	
Subtopics to be covered	1.Definition and significance of LLM agents. 2.Overview of the evolution from LLMs to LLM agents. 3.How LLM agents differ from traditional AI models and chatbots. <input type="checkbox"/> <i>Discussion:</i> compare LLM agents vs. chatbots	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 18</b>	<b>Image Generation: Diffusion, GANs, VAEs</b>	PLO1, PLO2, PLO8, PLO9, PLO10
Objective of the session	Provide an intuitive overview of VAEs, GANs, and diffusion models and how they generate realistic images.	
Subtopics to be covered	Activity: Hands-on exploration of a safe image-generation tool (e.g., prompting for marketing visuals or UI mockups) and discussing prompt–output relationships.	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 19</b>	<b>Video and Multimodal Generation</b>	PLO1, PLO2, PLO8, PLO9, PLO10
Objective of the session	Introduce text-to-video and multimodal models that handle text, image, and audio jointly; discuss use in education, advertising, and simulation.	
Subtopics to be covered	Activity: Students storyboard a short explainer video (e.g., product pitch or educational snippet) and use a GenAI video tool to generate a draft.	
Readings	Handouts will be provided	

Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 20	Hands On Session-3	PLO8, PLO9, PLO10, PLO11, PLO12
Objective of the session	Workshop 3: Data analytics prompts and instructions	
Subtopics to be covered	Mini-project sprint on prompts for business datasets	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 21	Exploring Applications of Generative AI: Generative AI in Business and Marketing	PLO5, PLO6, PLO7
Objective of the session	Explore how generative AI is transforming business operations and marketing strategies through automation, personalization, and content creation.	
Subtopics to be covered	1.Overview of generative AI's role in the business landscape. 2.Key benefits of using generative AI for marketing and business strategies: Efficiency, scalability, and enhanced decision-making. 3.Differences between traditional marketing approaches and AI-driven strategies.	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
Session 22	Generative AI in Finance	PLO1, PLO2, PLO8, PLO9, PLO10
Objective of the session	Explain how generative AI is being used in finance for tasks such as risk management, financial forecasting, and automated reporting.	
Subtopics to be covered	1.Overview of generative AI's impact on the financial industry. 2.Key benefits of using generative AI in finance: Efficiency, accuracy, and enhanced decision-making. 3.Differences between traditional financial analysis techniques and AI-driven approaches. <i>Scenario Planning: “What if your firm relied only on AI?”</i>	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	

<b>Session 23</b>	<b>Generative AI and Education</b>	PLO1, PLO2
Objective of the session	Explain how generative AI is reshaping the education landscape by enhancing teaching methodologies, personalizing learning experiences, and automating administrative tasks.	
Subtopics to be covered	1. Overview of generative AI's impact on the education sector. 2. Benefits of AI-powered learning environments: Efficiency, scalability, and personalization. 3. Differences between traditional and AI-enhanced educational methods.  <i>Workshop:</i> design an AI-enabled classroom exercise	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 24</b>	<b>Revolutionizing Science and Healthcare with Generative AI</b>	PLO1, PLO2, PLO3, PLO4
Objective of the session	AI in drug discovery, medical ethics	
Subtopics to be covered	Drug discovery and material science through generative models Medical imaging analysis and disease prediction Exploring ethical considerations in healthcare applications <input type="checkbox"/> <i>Structured Debate:</i> trust in AI diagnosis	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 25</b>	<b>Generative AI in Cybersecurity: Threats and Defense</b>	PLO3, PLO4
Objective of the session	Introduce text-to-video and multimodal models that handle text, image, and audio jointly; discuss use in education, advertising, and simulation.	
Subtopics to be covered	Privacy, Adversarial Training	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 26</b>	<b>Guest Lecture-II</b>	PLO1, PLO2
Objective of the session	GenAI for future	
Subtopics to be covered	To familiarise students with real world use cases of	

	Generative AI in service industries.	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture	
<b>Session 27</b>	<b>Future of Generative AI</b>	PLO1, PLO2,
Objective of the session	Trends, disruptions, adaptability skills	PLO8, PLO9,
Subtopics to be covered	Domain-Specific and Industry-Fine-Tuned GenAI Models, Physical AI, Spatial AI	PLO10
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 28</b>	<b>Hands On Session-4</b>	PLO3, PLO4
Objective of the session	Workshop 4: Experimenting with different generative models and tools	
Subtopics to be covered	<i>Reflection:</i> “What new skills do I need to adapt?”	
Readings	Handouts will be provided	
Case Title & Number	Not Applicable	
Pedagogy	Discussion/ Lecture and Hand-On	
<b>Session 29</b>	Reading and Revision Week	PLO5, PLO6,
Objective of the session	Course revision and doubt clearing	PLO7, PLO11,
Subtopics to be covered	NA	PLO12
Pedagogy	NA	
Case Title & Number	NA	
Pedagogy	NA	
<b>Session 30</b>	Reading and Revision Week	PLO5, PLO6,
Objective of the session	Course revision and doubt clearing	PLO7, PLO11,
Subtopics to be covered	NA	PLO12
Pedagogy	NA	
Case Title & Number	NA	
Pedagogy	NA	

### Disability Support

JGU endeavours to make all its courses accessible to students. The Disability Support Committee (DSC) has identified conditions that could hinder a student's overall wellbeing. These include physical

and mobility-related difficulties, visual impairment, hearing impairment, mental health conditions, and intellectual/learning difficulties, e.g., dyslexia and dyscalculia. Students with any known disability needing academic and other support are required to register with the Disability Support Committee (DSC) by following the procedure specified at <https://jgu.edu.in/disability-support-committee/>

Students who need support may register any time during the semester up until a month before the end semester exam begins. Those students who wish to continue receiving support from the previous semester, must re-register within the first month of a semester. Last-minute registrations and support might not be possible as sufficient time is required to make the arrangements for support.

The DSC maintains strict confidentiality about the identity of the student and the nature of their disability and the same is requested from faculty members and staff as well. The DSC takes a strong stance against in-class and out-of-class references made about a student's disability without their consent and disrespectful comments referring to a student's disability.

All general queries are to be addressed to [disabilitysupportcommittee@jgu.edu.in](mailto:disabilitysupportcommittee@jgu.edu.in)

**\* Disclaimer: This course outline including assessments, sessions and/or readings may be revised during the semester if such need arises.**