SEMSETER-IV

GANPAT UNIVERSITY

FACULTY OF MANAGEMENT STUDIES

Programme	MBA	Branch/Spec.	Tech MBA (MBA Technology Management)
Semester	IV	Version	2.0.0.0
Effective from Academic Year	2025-26	Effective for the Batch admitted in	January 2025
Course Code	**IVA01AID**	Course Name	**Artificial Intelligence for Business Decision Making**

Teaching Scheme						Examination Scheme (Marks)			
(Per week)	Lecture (DT)		Practical (Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	4	0	0		4	Theory	60	40	100
Hours	4	0	0		4	Practical			

Pre-requisites

Course Outcomes

On successful completion of the course, the students will be able to:

CO1	Understand the fundamental concepts of AI and Machine Learning to identify appropriate use cases across various business domains.
CO2	Formulate data-driven strategies by analyzing the intersection of AI capabilities with organizational value chains to drive operational efficiency and customer understanding.
CO3	Evaluate the economic feasibility, ROI, and resource requirements (Build vs. Buy) for implementing AI projects in a corporate setting.
CO4	Design governance frameworks that address ethical dilemmas, algorithmic bias, regulatory compliance, and the human-machine collaboration aspect of AI adoption.

Theory Syllabus

Unit	Content	Hrs.
1	Foundations of AI for Managers, Evolution of Artificial Intelligence, AI vs Machine Learning vs Deep Learning, The Business Value of Prediction, Supervised Learning Concepts (Classification Regression), Unsupervised Learning Concepts (Clustering), Reinforcement Learning Basics, Neural Networks Explained for Managers, Natural Language Processing (NLP) Overview, Computer Vision Business Applications, The Role of Data as an Asset, Data Quality and Availability, The AI Project Lifecycle (CRISP-DM), Narrow AI vs General AI (AGI), Hype Cycle of Emerging Technologies..	12
2	AI Across the Value Chain, AI in Marketing and Sales, Customer Segmentation and Targeting, Recommendation Engines (Netflix/Amazon Models), Churn Prediction, Dynamic Pricing Strategies, AI in Supply Chain and Logistics, Predictive Maintenance, Demand Forecasting, AI in Human Resources, Talent Acquisition and Screening, Employee Retention Modeling, AI in Finance and Fintech, Fraud Detection Systems, Algorithmic Trading Basics, Credit Risk Assessment, AI in Healthcare and Pharma, Legal Tech and Automated Compliance, Industry 4.0 and Smart Manufacturing.	12
3	Introduction to Generative AI, Large Language Models (LLMs) Explained, Foundation Models (GPT, Gemini, Claude, LLaMA), The Economics of Generative AI, Prompt Engineering for Business Leaders, Retrieval Augmented Generation (RAG) Concepts, Generative AI for Content Creation, Coding Assistants and Productivity, Synthetic Data Generation, Customer Service Automation via AI Agents, Fine-Tuning vs Pre-training, Risks of Hallucinations, Intellectual Property Issues in GenAI, Transforming Knowledge Work.	12
4	Developing an Organization-Wide AI Strategy, The AI Maturity Model, Identifying High-Impact Use Cases, Build vs Buy vs Partner Decisions, Assessing Technical Feasibility vs Business Value, Cost-Benefit Analysis of AI Projects, Cloud Computing and AI Infrastructure (AWS/Azure/GCP Overview), MLOps and Model Lifecycle Management	12

	(Managerial View), Managing AI Vendors and Consultants, Agile Methodology in AI Projects, Key Performance Indicators (KPIs) for AI Success, Change Management in AI Adoption, Reskilling and Upskilling the Workforce.	
5	The Ethics of Artificial Intelligence, Algorithmic Bias and Fairness, Explainable AI (XAI) and Trust, Black Box Problems, Data Privacy and Security (GDPR/DPDP/CCPA), The European Union AI Act and Global Regulations, Deepfakes and Misinformation Risks, Liability and Accountability in Autonomous Systems, Human-in-the-Loop Systems, The Future of Work and Job Displacement, AI Governance Frameworks, Corporate Boards and AI Oversight, Quantum Computing and AI, Sustainable AI (Green AI).	12
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Practical, assignments and tutorials are based on above syllabus.		
Text Books		
1	Prediction Machines: The Simple Economics of Artificial Intelligence by Ajay Agrawal, Joshua Gans, and Avi Goldfarb	
Reference Books		
1	Competing in the Age of AI: Strategy and Leadership When Algorithms and Networks Run the World by Marco Iansiti and Karim R. Lakhani	
2	Human + Machine: Reimagining Work in the Age of AI by Paul R. Daugherty and H. James Wilson	
3	AI Superpowers: China, Silicon Valley, and the New World Order by Kai-Fu Lee	
4	The Age of AI: And Our Human Future by Henry Kissinger, Eric Schmidt, and Daniel Huttenlocher	
5	Power and Prediction: The Disruptive Economics of Artificial Intelligence by Ajay Agrawal, Joshua Gans, and Avi Goldfarb	
6	Machine Learning for Business Principles: A Manager's Guide to AI/ML by Tom Taulli	
7	Artificial Intelligence for Business: A Roadmap for Getting Started with AI by Rajendra Akerkar	
8	The AI Advantage: How to Put the Artificial Intelligence Revolution to Work by Thomas H. Davenport	
9	Reinventing the Product: How to Transform Your Business and Create Value in the Digital Age by Eric Schaeffer and David Sovie	
10	Generative AI: The Insights You Need from Harvard Business Review by Harvard Business Review	
11	Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy by Cathy O'Neil	
12	Real World AI: A Practical Guide for Responsible Machine Learning by Alyssa Simpson Rochwerger and Wilson Pang	
ICT/MOOCs Reference		
1	Coursera: AI For Everyone — deeplearning.ai	
2	Udemy: Artificial Intelligence in Business: A Practical Guide	

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PSO 1	PSO 2	PSO 3
CO1	3	3	2	1	2	1	2	3	3	3	2	1
CO2	3	3	2	2	2	1	3	3	3	3	3	1
CO3	3	2	3	1	2	2	2	3	3	3	3	1
CO4	2	2	3	2	2	3	1	2	2	2	2	3