

COURSE DESCRIPTION			
Program	Computer Application & Business Management		
Course Title	AI for Business		
Course Code	2251	Semester	II
Type of Course	Practicum	Contact Hours	90
Teaching Scheme (L: T:P:R)	3:0:3:0	Credits	4.5
CIE Marks	40	ESE Marks	100

Introduction

This course equips students with skills to understand and apply AI solutions in business contexts. It integrates conceptual understanding with hands-on exposure, ensuring learners can relate AI technologies to real-world business decision-making while adhering to ethical and professional standards.

Course Objectives

1	To understand the basic concepts, terms, and components of Artificial Intelligence used in business.
2	To explain how AI is used in different business functions with suitable examples.
3	To use simple AI-enabled tools and techniques to perform basic business-related tasks.
4	To demonstrate responsible use of AI by following basic ethical and data privacy guidelines.

Course Pre-requisite

Topic	Course code	Course Title	Semester
Entire course	1253	Business Studies	I

Course Outcome

CO	Course Outcome	Blooms Taxonomy Level
CO1	Define and explain core AI concepts, describe their significance in business contexts and use AI features for business data.	Apply
CO2	Identify, illustrate, and apply AI applications across major business functions using real-life examples.	Apply
CO3	Apply basic analytical techniques and use AI-generated insights to support business decisions.	Apply
CO4	Apply ethical concerns, apply challenges, and discuss future trends of AI in business.	Apply

CO-PO mapping

COURSE ARTICULATION MATRIX											
Course Outcomes	PROGRAM OUTCOMES										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	-	3	2	-	-	-	2	2
CO2	3	3	3	2	3	2	-	-	-	2	2
CO3	3	3	2	2	3	2	-	-	-	3	2
CO4	3	2	-	-	-	3	3	-	-	2	3
Total	12	10	7	4	9	9	3	-	-	9	9
Correlation Level	3	2.5	2.33	2	3	2.25	3	-	-	2.25	2.25

Legends: 1 - Low; 2 - Medium; 3 - High; No Correlation - "-"

Teaching and Assessment Scheme

Teaching Scheme/Week				Self-learning (SS)/Week	Total Hours/Semester	Credits C	Examination Scheme					
							Theory			Practical		
L	T	P	S				CIE	ESE	Total	CIE	ESE	Total
3	0	3	0	6	90	4.5	20	60	80	20	40	60
												140

L: Lecture (One unit is of one-hour duration with one credit), T: Tutorial (One unit is of one-hour duration with one credit), P: Practical (One unit is of one-hour duration with 0.5 credit), S: Project (One unit is of one-hour duration with 0.5 credit) SS: Self-Learning, CIE: Continuous Internal Evaluation, ESE: End Semester Examination

Syllabus - Major Topics

Module	Title	Major Topics	Instructional Hours	
			L	P
Module I	Fundamentals of AI and Business Context	Evolution and overview of Artificial Intelligence - Key AI terminologies: ML, DL, NLP, Computer Vision - Data as a business asset - Types of AI systems: rule-based and learning-based - Role of AI in business transformation	11	0
Module I	Familiarisation of AI tools	Introduction to AI Tools for Business - Using AI Features in Spreadsheets for Business Data	0	9
Module II	AI Applications in Business Functions	AI in Marketing: personalization, recommendations, sentiment analysis - AI in Finance: forecasting, fraud detection, credit assessment - AI in Human Resources: resume screening, talent analytics - AI in Operations and Supply Chain: demand forecasting, process automation - Business case studies	12	0
Module II	AI tools for Marketing, Finance, HR and Operations	Customer Data Analysis Using AI-Assisted Tools - Sales Prediction Using Business Data - AI in Finance - Expense Categorization - AI in Human Resources - Resume Screening (Demonstration)	0	15
Module III	Data Analytics and AI-driven Decision Making	Types of business data and data sources - Introduction to business analytics - Descriptive, predictive, and prescriptive analytics - AI-based decision support systems - Interpretation of analytical outputs	11	0
Module III	AI tools in Customer Support & Decision Making	AI Chatbots for Customer Support - Inventory Forecasting Using AI Tools	0	9
Module IV	Ethics, Challenges, and Future of AI in Business	Ethical issues: bias, fairness, transparency - Data privacy and regulatory considerations - Organizational and technical challenges in AI implementation - AI and future workforce implications - Emerging trends in AI for business	11	0
Module IV	Ethical practices in using AI for Business	Ethics and Responsible use of AI in Business - Mini Project - AI Application in Business	0	12

Detailed Syllabus

Subtopic	Student Learning Outcome	Mode of delivery (L/T)	Mapped CO	Taxonomy Level	Instructional Hours
Module I					
Evolution and overview of Artificial Intelligence	Recall the meaning of Artificial Intelligence and trace its historical evolution.	L	CO1	Remember	1
Evolution and overview of Artificial Intelligence	Explain differences between traditional systems and AI-based systems.	L	CO1	Understand	1
Evolution and overview of Artificial Intelligence	Identify key AI terms - Machine Learning, Deep Learning, NLP, Computer Vision.	L	CO1	Understand	1
AI tools in Business	Familiarize with commonly used AI-enabled tools in business.	P	CO1	Understand	3
AI in Business	Explain the role of data as a business asset.	L	CO1	Understand	1
AI in Business	Describe briefly the types of AI systems (rule-based and learning-based).	L	CO1	Understand	2
AI in Business	Explain how AI is used in modern organizations.	L	CO1	Understand	1
AI in Business	Apply AI-supported features in spreadsheets for basic business analysis.	P	CO1	Apply	6
AI in Business	Describe common business areas where AI is applied.	L	CO1	Understand	1
AI in Business	Explain AI usage through simple industry examples.	L	CO1	Understand	1
AI in Business	Classify business problems suitable for AI solutions.	L	CO1	Apply	1
AI in Business	Illustrate AI usage using a simple business case.	L	CO1	Apply	1
Module II					

AI Applications in Marketing	Describe AI applications in marketing.	L	CO2	Understand	1
AI Applications in Marketing	Explain customer analytics and recommendation systems.	L	CO2	Understand	1
AI Applications in Marketing	Analyze customer data using AI-assisted tools.	P	CO2	Apply	3
AI Applications in Finance	List AI uses in finance.	L	CO2	Understand	1
AI Applications in Finance	Explain fraud detection and forecasting with examples.	L	CO2	Understand	1
AI Applications in HR	Explain AI applications in Human Resources.	L	CO2	Understand	1
AI Applications in HR	Explain resume screening and talent analytics.	L	CO2	Understand	2
AI in Finance	Use AI tools for basic financial data classification.	P	CO2	Apply	3
AI Applications in Operations & Supply Chain	List AI applications in operations and supply chain.	L	CO2	Remember	1
AI Applications in Operations & Supply Chain	Explain demand forecasting and process automation.	L	CO2	Understand	2
AI Applications in Operations & Supply Chain	Apply predictive features for estimating future sales.	P	CO2	Apply	6
AI Applications in Business Functions	Match business functions with suitable AI applications.	L	CO2	Apply	1
AI Applications in Business Functions	Apply AI concepts to a simple case scenario.	L	CO2	Apply	1
	Series Lab Exam - I	P	CO2	Apply	3
Module III					
Data Analytics	Recall types of business data and data sources.	L	CO3	Remember	1
Data Analytics	Demonstrate how AI supports recruitment processes.	P	CO3	Apply	3
Data Analytics	Explain the concept of business analytics.	L	CO3	Understand	1
Data Analytics	Explain descriptive analytics with examples.	L	CO3	Understand	2
Data Analytics	Explain predictive analytics with business examples.	L	CO3	Understand	2
AI Chatbots	Demonstrate the use of AI chatbots in customer service.	P	CO3	Apply	3
Data Analytics	Explain prescriptive analytics at a basic level.	L	CO3	Understand	1
AI-driven Decision Making	Recall components of AI-driven decision systems.	L	CO3	Remember	1
AI-driven Decision Making	Explain how AI supports business decisions.	L	CO3	Understand	2
AI-driven Decision Making	Apply AI tools for inventory planning.	P	CO3	Apply	3
AI-driven Decision Making	Interpret simple analytical outputs.	L	CO3	Apply	1
Module IV					
Ethics in AI	Recall basic ethical issues in AI.	L	CO4	Remember	1
Ethics in AI	Explain bias and fairness in AI systems.	L	CO4	Understand	1
Ethics in AI	Explain transparency and explainability with examples.	L	CO4	Understand	1
Ethics in AI	Demonstrate responsible and ethical use of AI tools.	P	CO4	Apply	3
Challenges in AI implementation	Recall basic data privacy principles.	L	CO4	Remember	1
Challenges in AI implementation	Explain security concerns in AI usage.	L	CO4	Understand	1
Challenges in AI implementation	Explain common challenges in AI implementation.	L	CO4	Understand	1
Challenges in AI implementation	Explain change management in AI adoption.	L	CO4	Understand	1
AI Application in Business	Apply AI tools to solve a simple business problem.	P	CO4	Apply	3

Future of AI in Business	Describe AI impact on employment and work.	L	CO4	Understand	1
Future of AI in Business	Recall emerging trends in AI for business.	L	CO4	Remember	1
Future of AI in Business	Explain future opportunities of AI in business.	L	CO4	Understand	1
Future of AI in Business	Apply ethical guidelines to simple business scenarios.	P	CO4	Apply	3
	Lab Series Exam - II	P	CO4	Apply	3

Suggested Student Activities for Self-Learning

Week	Self-Learning description	Hours
Module I		
1	• Learn the concepts taught • Watch a short video on AI • Prepare a one-page note listing definition of AI and 3 examples of AI used in daily life • Or any other activity	6
2	• Learn the concepts taught • Create a comparison table of Traditional system vs AI system • Identify one business example for each • Or any other activity	6
3	• Learn the concepts taught • Prepare a glossary sheet with the terms AI, ML, DL, NLP, Dataset, Model, Automation, Prediction; • Write one business example for each • Or any other activity	6
4	• Learn the concepts taught • Case reading on "How AI is used in a retail company" and answer where AI is used and what benefit it provides • Or any other activity	6
Module II		
5	• Learn the concepts taught • Observe online ads / shopping apps, list 3 personalized recommendations you received and answer why you think AI showed them • Or any other activity	6
6	• Learn the concepts taught • Read about AI in fraud detection • Prepare a flow diagram showing Transaction → AI check → Result • Or any other activity	6
7	• Learn the concepts taught • Under a resume screening scenario. given 3 resumes; identify keywords for a job role • List the benefits and limitations of AI screening • Or any other activity	6
8	• Learn the concepts taught • Using a short case study, answer - (i) Which business function uses AI? (ii) What problem does AI solve? • item 2 • Or any other activity	6
Module III		
9	• Learn the concepts taught • Identify the data used in college admissions or supermarket sales and classify data as: Customer, sales, finance, operations • Or any other activity	6
10	• Learn the concepts taught • Match activity: Past sales → Descriptive; Next month forecast → Predictive and provide one example for each type • Or any other activity	6
11	• Learn the concepts taught • Using a simple dashboard image, answer: What does the chart show? What decision can be taken? • Or any other activity	6
12	• Learn the concepts taught • Given a sales chart, suggest one business decision and write 5-6 sentences about it • Or any other activity	6
Module IV		
13	• Learn the concepts taught • item 2 • Read a short article on AI bias and answer what bias is; give an example from business • Or any other activity	6

14	• Learn the concepts taught • Identify personal data shared online and list 3 safety practices while using AI tools • item 2 • Or any other activity	6
15	• Learn the concepts taught • item 2 • Write a half-page note on "How AI may help my future career" and share in class discussion • Or any other activity	6
Total Self-Learning hours		90

Learning Resources

TEXT BOOK			
Sl. No.	Title	Author	Publication
1	Artificial Intelligence for Business	Doug Rose	Pearson
2	Artificial Intelligence for Business	Rajendra Akerkar	Springer
3	Artificial Intelligence and Machine Learning for Business	Namita Mishra & A. V. Senthil Kumar	Routledge
4	Artificial Intelligence in Business	Pavankumar Gurazada & Seema Gupta	Vikas Publishing

REFERENCE			
Sl. No.	Title	Author	Publication
1	Artificial Intelligence and Machine Learning for Business for Non-Engineers	Stephan S. Jones, Frank M. Groom	Routledge
2	AI for Managers	Rahul De'	Cengage

WEB RESOURCES		
Sl. No.	URL	Modules Covered
1	https://www.ibm.com/topics/artificial-intelligence	I & II
2	https://www.oracle.com/in/artificial-intelligence/what-is-ai/	I
3	https://www.simplilearn.com/tutorials/artificial-intelligence-tutorial/ai-vs-machine-learning-vs-deep-learning	I
4	https://www.salesforce.com/in/artificial-intelligence/	II
5	https://analytics.google.com/analytics/academy/	III
6	https://support.microsoft.com/en-us/excel	III
7	https://www.ibm.com/topics/ai-ethics	IV
8	https://www.weforum.org/topics/artificial-intelligence/	IV

Major Equipment/Instruments/Components required for a batch of 30 students

Sl. No.	Particulars	Specifications	Quantity
1	Computer	Latest	30

Major Software required for a batch of 30 students

Sl. No.	Particulars	Specifications	Quantity
1	MS Excel / Google Sheets with AI Features	Latest	30
2	AI Chat Tools - ChatGPT / Microsoft Copilot / Gemini	Latest	30
3	General AI Tool Platforms like IBM Watson demos / Microsoft AI demos / Google AI Experiments	Latest	30

Assessment Methodology - Practicum

Mode	Attendance	CA1	CE	CA2	CA3	CA4	CA5	ESE	
		Average of Self learning activities from each module	Continuous evaluation	Practical test (first half of experiments)	Practical test (second half of experiments)	Series Exam (2 modules)	Series Exam (2 modules)	Written Exam (theory)	Lab Examination (internal)
Duration				3 hours	3 hours	2 hours	2 hours	2.5 hours	3 hours
Exam mark		10	50	40	40	50	50	60	40
Converted to		5	10	10	10	10	10		
Marks	5	5	10	10		10		60	40
Total								100	
Tentative schedule	End of semester	By 4th week	By 7th week	By 11th week	By 14th week	8th week	15th week	End of semester	

Scheme of Evaluation - Practical (Continuous Internal Evaluation)

Sl. No.	Criteria	Description	Marks
1	Preparation & Punctuality	Attendance, timely submission of record, pre-lab preparation, understanding of experiment objectives and theory.	10
2	Experimental Setup & Procedure	Ability to identify components/equipment, correct circuit connections/setup, systematic and safe execution of the procedure.	10
3	Observation & Data Recording	Accuracy and neatness of readings, correct use of units, tabulation, and systematic recording of results.	5
4	Analysis & Result Interpretation	Proper calculations, graphical representation, result verification, discussion, and logical conclusion.	10
5	Viva Voce / Concept Understanding	Clarity of theoretical concepts, explanation of procedure, ability to answer questions related to the experiment.	10
6	Workmanship, Discipline & Teamwork	Laboratory discipline, care of instruments, teamwork, attitude, and safety practices.	5
Total			50

Scheme of Evaluation - Practical Test

Category	Things to evaluate	Marks
Write-up / Procedure (before experiment)	Aim, circuit diagram/flowchart, stepwise procedure.	10
Experiment Setup & Execution	Correct circuit connections / coding / setup. Handling of instruments/software. Accuracy of execution.	10
Observation & Result / Output	Proper tabulation of readings. Calculations/graphs/program output. Correctness of result / expected outcome.	8
Viva Voce	Conceptual understanding of experiment. Related theoretical knowledge.	8
Record	Completion & neatness of practical record. Proper certification by faculty.	4
Total		40

Series Examination Pattern- Theory

Time	Module	Part A	Marks	Part B	Marks	Part C (With choice)	Marks	Total
2 hours	Any one module	2	1	3	3	2	7	25
	Any one module	2	1	3	3	2	7	25
	Number	4		6		4		50

End Semester Examination Pattern of Question Paper - Theory

Duration	Module	TYPE OF QUESTIONS						
		Part A (2 Questions from each module)		Part B 2 out of 3 questions from each module)		Part C (1 set questions with choice from each module)		Total Marks
		No. of Questions	Marks (1 mark each)	No. of Questions	Marks (3 marks each)	No. of Questions	Marks (7 marks each)	
2.5 hours	1	2	2	3	6	1 set	7	15
	2	2	2	3	6	1 set	7	15
	3	2	2	3	6	1 set	7	15
	4	2	2	3	6	1 set	7	15
		8	8	12	24	4 sets	28	60

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