COURSE HANDOUT

AI FOR MANAGERS (BCMMI 405(D))

B.COM- 4th SEMESTER

ACADEMIC YEAR (2025-26)

Ms Arti Kotru

Associate Professor

P.G. Department of Computer Applications

UG -School of Management

Model Institute of Engineering & Technology (Autonomous)

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SYLLABUS

Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
							Sessional	Final Exam	Total
BCMMI- 405(D)	AI for Managers	Minor	4	5	0	0	40	60	100

COURSE OUTCOMES

At the end of the course the student will be able to:	
CO1	Outline the basic concepts of Artificial Intelligence.
CO2	Analyze the role of supervised learning and its applications.
CO3	Analyze the role of unsupervised learning and its applications
CO4	Problem Solving methods and searching solutions.
CO5	Articulate the latest trends of AI

Unit-I

Introduction to Artificial Intelligence: History and Evolution, Concepts, Terminology and Application Areas, Artificial: Issues, Concerns and Ethical Considerations, Future of Artificial Intelligence.   (10 Hours)

Unit-II

Supervised Learning and Applications: Supervised Learning: Introduction to classification, Applications of supervised learning in multiple domains Application of supervised learning in solving business problems such as pricing, customer relationship management, Sales and Marketing.   (10 Hours)

Unit-III

Unsupervised Learning and Applications:Unsupervised Learning-Concept, Importance; Types of Unsupervised Learning; Real Life Examples from Unsupervised Learning: Clustering, Hierarchical clustering, Partitioning Clustering- K-mean clustering, Density Based Methods DBSCAN, OPTICS, Applications of unsupervised learning in multiple domains.   (10 Hours)

Unit- lV

Problem solving Methods: Problem-solving Agents-Goal Formulation, Problem formulation, searching for solutions- uniformed search strategies – Breadth first search, depth first Search, informed (heuristic) search strategies- best-first search.   (09 Hours)

Unit-V

Emerging trends of Artificial intelligence technologies: Natural language generation- Detecting Fake News and Cyber-Bullying, Social Media Monitoring, Automating Customer Service, Speech recognition: Use in business, Intelligent Virtual Agents(chat bot, Alexa, Gyant), Robotic process automation, ChatGPT.

(09 Hours)

Textbooks

S.No	Name of the Books	Name of the Author	Publisher Name	Edition (Pub.Yr.)
1	Artificial Intelligence: ModernApproach	Stuart Russell, Peter Norvig	Pearson	4th (2020)
2.	Artificial Intelligence for Business	Akerkar, Rajendra	Springer	1st (2019)

Reference Books

S.No	Name of the Books	Name of the Author	Publisher Name	Edition (Pub.Yr.)
1	Artificial Intelligence for Business	Doug Rose	Pearson Education (US)	2nd (2020)
2	Artificial intelligence: structures and strategies for complex problem solving	George F. Luger	Pearson	6th (2008)

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COURSE PLAN		
Unit-I Introduction to Artificial Intelligence		
S.No	**Topics**	**Recommended Books**
1	History and Evolution	Book 1, Ch.1 Book 2, Ch. https://onlinecourses.nptel.ac.in/noc21_ge20/preview
2	Concepts and Terminology	Book 2, Ch.1 https://onlinecourses.nptel.ac.in/noc21_ge20/preview
3	Application Areas	Book 1, Ch.1 https://onlinecourses.nptel.ac.in/noc22_cs56/preview
4	Issues, Concerns and Ethical Considerations	Book 2, Ch.2 https://www.tutorialspoint.com/artificial_intelligence/artificial_intelligence_issues.htm https://www.unesco.org/en/artificial-intelligence/recommendation-ethics/cases
5.	Future of Artificial Intelligence.	https://www.analyticsvidhya.com/blog/2023/04/future-of-ai/
Unit-II Supervised Learning and Application		
6	Introduction to classification	Ref Book1, Ch.8 Ref Book 3- Chapter 2 https://www.youtube.com/watch?v=XaHFNhHfXwQ
7	Types of Supervised learning, classification, and regression	Ref Book 1, Ch.8 Ref Book 3- Chapter 2 https://www.youtube.com/watch?v=OTAR0kT1swg
8	Applications of supervised learning in multiple domains	Ref Book 1, Ch.8 Ref Book 3- Chapter 2 https://www.youtube.com/watch?v=VudrNXCYJt4
9	Application of supervised learning in solving business problems	Ref Book 1, Ch.8 https://nptel.ac.in/courses/111105042
10	Application of supervised learning in customer relationship management	https://www.leewayhertz.com/supervised-machine-learning https://ijcrt.org/papers/IJCRT2106331.pdf
11	Application of supervised learning in sales and marketing	https://www.youtube.com/watch?v=4KQPI0SLCpY

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	Unit-III Unsupervised Learning and Applications	
12	Unsupervised Learning-Concept, Importance	Book 2, Ch.2 Ref Book 3 https://nptel.ac.in/courses/106105152
13	Types of Unsupervised Learning	Book 2, Ch.2 https://nptel.ac.in/courses/106106202
14	Real Life Examples from Unsupervised Learning	Book 2, Ch.2 https://nptel.ac.in/courses/106106202
15	Clustering, Hierarchical clustering	Ref Book 3, Ch.7
16	K-mean clustering,	Ref Book 3, Ch.7
17	Density Based Methods DBSCAN	Book 2, Ch.2
18	Density Based Methods OPTICS	Book 2, Ch.2
19	Applications of unsupervised learning in multiple domains	https://theintactone.com/2021/11/28/applications-of-unsupervised-learning-in-multiple-domains/
	Unit-IV Problem solving Methods	
20	Problem-solving agents- Goal Formulation, Problem Formulation	Book 1, Ch.2 https://www.youtube.com/watch?v=3FganaskCSg
21	Searching for solutions- uniformed search strategies	Book 1, Ch.2 https://www.youtube.com/watch?v=ayP0KCeBK_U&t=13s
22	Breadth first search	Book 1, Ch.2 https://www.youtube.com/watch?v=aTy9niABXSo&t=1s
23	Depth first Search	Book 1, Ch.2
24	Informed (heuristic) search strategies- best-first search	Book 1, Ch.2
	Unit-V Emerging trends of Artificial intelligence technologies	
25	Natural language generation- Detecting Fake News and Cyber-Bullying	Book 2, Ch.8 https://www.youtube.com/watch?v=wiscimXGqxg
26	Social Media Monitoring	Book 2, Ch.8 https://www.youtube.com/watch?v=pakbeYcQ_zc
27	Automating Customer Service	Book 2, Ch.8 https://www.youtube.com/watch?v=ixhA1XeGDgA
28	Speech recognition: Use in business	https://www.youtube.com/watch?v=6altVgTOf9s https://www.transcribeme.com/blog/8-innovative-ways-to-use-speech-recognition-for-business/
29	Intelligent Virtual Agents (chat bot, Alexa, Gyant)	https://www.youtube.com/watch?v=6altVgTOf9shttps://www.nextiva.com/blog/intelligent-virtual-agent.html

| 30 | Robotic process automation | https://www.uipath.com/rpa/robotic-process-automation#:~:text=Robotic%20process%20automation%20(RPA)%20is,with%20digital%20systems%20and%20softwarehttps://www.youtube.com/watch?v=MBl-3Yb30FA |
| 31 | ChatGPT | https://www.youtube.com/watch?v=Nz1MI8nsFTs https://openai.com/blog/chatgpt |

ADDITIONAL WEB RESOURCES

| 1. | **NPTEL Video Lecture--**An Introduction to Artificial Intelligence Prof. Mausam,IIT Delhi **https://onlinecourses.nptel.ac.in/noc24_cs08/unit?unit=17&lesson=18** |
| 2. | **NPTEL Video Lecture:** Fundamentals of Artificial Intelligence, IIT Guwahati Prof. Shyamanta M. Hazarika **https://nptel.ac.in/courses/112103280** |

GRADING AND ASSESSMENT

- **Sessional Test**: 20 marks
- **Assignment**: 10 marks
- **Attendance**: 10 marks
- **Final Examination**: 60 marks

COURSE POLICIES

- **Attendance**: Minimum 75% attendance is mandatory to appear in the final examination of the course.
- **Academic Integrity**: MIET's academic integrity policies apply. Plagiarism will not be tolerated.
- **Late Submissions**: Assignments and projects must be submitted by the specified timelines.

FACULTY INFORMATION

- **Office Hours**
  Wednesday (12:55 PM - 1:30 PM)
  Friday (12:55 PM - 1:30 PM)

- **Contact Information**
  arti.mca@mietjammu.in