



Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC - 4th Cycle

COURSE DATA SHEET

SEMESTER	I	BATCH	2026
COURSE NAME	Responsible Use of Artificial Intelligence	COURSE CODE	26UCSGE1E01
COURSE UNITS	5	COURSE TYPE	Generic Elective(GE) - I
CONTACT HOURS (L-T-P)	4-0-0	CREDITS	4
OFFERED BY	B.Sc Computer Science	SHIFT (I / II) Shift I - 8:15 am - 12:50 pm Shift II - 1:00 pm - 5:30 pm	Shift II

COURSE OBJECTIVES

1	To introduce the fundamentals of Artificial Intelligence and its applications.
2	To understand the ethical, legal, and social implications of AI.
3	To explore fairness, transparency, and accountability in AI systems.
4	To examine responsible AI practices in various sectors.
5	To evaluate emerging challenges and future directions of responsible AI.

COURSE OUTCOMES: On completion of the course the students will be able to...

	CO Statement	Cognitive Level
CO1	Explain the fundamentals and applications of Artificial Intelligence.	K2
CO2	Describe the ethical and societal implications of AI technologies.	K2
CO3	Apply responsible AI principles in analyzing AI-based solutions.	K3
CO4	Analyze issues related to fairness, transparency, privacy, and governance in AI systems.	K4
CO5	Evaluate responsible AI practices and future challenges in the adoption of AI technologies.	K5

K1-Remember; K2- Understanding; K3- Apply; K4-Analyze; K5- Evaluate



Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC - 4th Cycle

SYLLABUS

UNIT	TOPICS	HOURS
1	Fundamentals of Artificial Intelligence- Evolution and History of AI- Types of AI: Narrow AI and General AI- AI Technologies: Machine Learning, Deep Learning, and Generative AI- Applications of AI in Daily Life- Benefits and Limitations of AI.	12
2	AI Ethics: Concepts and Principles- Social Impact of AI- Human Rights and AI- AI and employment -Digital Inclusion and Accessibility- Ethical Challenges in AI Applications.	12
3	Bias and Fairness in AI Systems- Sources of Bias in Data and Algorithms - Explainable and transparent AI -Accountability in AI Decision-Making - Trustworthy AI Principles -Responsible Data Collection and Usage.	12
4	Data Privacy and Protection -AI Security Risks and Challenges -Cybersecurity and AI -AI Governance Frameworks -Regulations and Policies for AI - Responsible Use of Generative AI Tools.	12
5	AI in Healthcare, Education, Finance, and Governance -Sustainable and Human-Centered AI -AI for Social Good -Emerging Trends in Responsible AI -Global AI Standards and Best Practices -Future Opportunities and Challenges in AI.	12
Note (if any)		60



Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC - 4th Cycle

TEXT/REFERENCE BOOKS/E - RESOURCES:

Text Books	1. Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, 4th Edition, Pearson, 2021. 2. Mark Coeckelbergh, AI Ethics, MIT Press, 2020. 3. Virginia Dignum, Responsible Artificial Intelligence: How to Develop and Use AI in a Responsible Way, Springer, 2019. 4. Ronald T. Kneusel, Responsible AI: Implementing Ethical and Unbiased Algorithms, O'Reilly Media, 2023. 5. Beena Ammanath, Trustworthy AI, Wiley, 2022.
Books For Reference	1. Luciano Floridi, The Ethics of Artificial Intelligence: Principles, Challenges, and Opportunities, Oxford University Press, 2022. 2. Andreas Kaplan and Michael Haenlein, Artificial Intelligence and Society, Cambridge University Press, 2023. 3. David Leslie, Understanding Artificial Intelligence Ethics and Safety, The Alan Turing Institute, Latest Edition 2025. 4. Joanna J. Bryson, The Future of Artificial Intelligence and Society, CRC Press, Latest Edition I. 5. Wendell Wallach, A Dangerous Master: How to Keep Technology from Slipping Beyond Our Control, Basic Books, 2024.
E-Learning Resources	1. https://www.unesco.org/en/digital-education/artificial-intelligence 2. https://oecd.ai/en/ai-principles 3. https://www.weforum.org/topics/artificial-intelligence-and-machine-learning/ 4. https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence 5. https://www.nist.gov/itl/ai-risk-management-framework

PEDAGOGY (TEACHING METHODOLOGY):

- Formal black board teaching with chalk and talk in classroom
- Using Projector and power point presentation in the classroom teaching
- 3. Using Moodle and Google as platform for online classes.
- Submitting video recording of classes in YouTube, so that students can view repeatedly and learn the concept with clarity. This ensures the students who are absent for a particular class, don't miss the lessons as they were able to watch the lesson recordings in YouTube anytime.
- Helping the students to identify various website where free programming code (virtual labs) can be executed. So even if they don't have software in their system, they can directly run the respective coding in the identified website and learn



Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC - 4th Cycle

CO-PO AND CO-PSO MAPPING:

	PO1	PO2	PO3	PO4	PO5	PO6		PSO1	PSO2	PSO3
CO1	3	3	3	3	3	2		3	2	2
CO2	3	3	3	3	3	2		3	3	3
CO3	3	3	3	3	3	2		3	3	3
CO4	3	3	3	3	3	2		3	3	3
CO5	3	3	3	3	3	2		3	3	3
Average (Use only filled in cells for calculation)	3	3	3	3	3	2		2.8	2.8	3

Correlation Level: 1-Low 2-Moderate 3-Strong

JUSTIFICATION OF CO-PO/PSO MAPPING

CO	PO/PSO	Level of correlation	Justification
CO1	PO1	3	Provides fundamental clarity of AI concepts enabling confident understanding of domain knowledge.
	PO2	3	Develops logical reasoning to evaluate AI advantages and limitations critically.
	PO3	3	Enables application of AI concepts to design solutions for real-world societal challenges.
	PO4	3	Establishes foundational knowledge supporting higher studies in specialized computing domains.
	PO5	3	Encourages continuous learning by analyzing evolving AI technologies, benefits, and limitations in a dynamic environment.
	PO6	2	Promotes ethical awareness by assessing societal and moral implications of AI technologies.
	PSO1	3	Builds proficiency in AI technologies for developing efficient digital solutions to real-world problems.
	PSO2	2	Encourages application of AI and software principles to address practical IT-enabled service challenges.
	PSO3	2	Fosters analytical thinking for innovation, research, and exploration of advanced AI solutions



Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC - 4th Cycle

CO2	PO1	3	Provides clarity on ethical principles of AI, strengthening fundamental domain understanding.
	PO2	3	Develops critical thinking to analyze societal and human rights implications of AI.
	PO3	3	Enables designing inclusive AI solutions addressing accessibility and fairness challenges.
	PO4	3	Establishes ethical foundations essential for advanced studies in AI and computing domains.
	PO5	3	Encourages continuous learning by exploring evolving ethical challenges in AI applications.
	PO6	2	Promotes ethical responsibility and moral values in the development and use of AI systems.
	PSO1	3	Builds capability to develop inclusive and accessible AI-based digital solutions.
	PSO2	3	Encourages application of AI principles to address real-world societal and employment challenges
	PSO3	3	Fosters innovation and research orientation in addressing ethical issues in AI applications.
CO3	PO1	3	Provides conceptual clarity on bias and fairness, strengthening core AI domain understanding.
	PO2	3	Develops logical reasoning to analyze accountability and trust in AI decision-making.
	PO3	3	Enables designing responsible AI solutions through ethical data collection and usage practices.
	PO4	3	Builds foundational knowledge of explainable AI supporting advanced studies in AI domains.
	PO5	3	Encourages continuous learning of evolving trustworthy AI principles and practices.
	PO6	2	Promotes ethical responsibility in handling data and ensuring fairness in AI systems.
	PSO1	3	Enhances proficiency in developing transparent and interpretable AI-based solutions.
	PSO2	3	Encourages application of responsible data practices in real-world IT-enabled services.
	PSO3	3	Fosters research and innovation in developing trustworthy and accountable AI systems.
CO4	PO1	3	Provides fundamental understanding of data privacy and security concepts in AI systems.
	PO2	3	Develops analytical skills to assess cybersecurity challenges and risks in AI applications.



Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC - 4th Cycle

	PO3	3	Enables designing secure AI solutions addressing data protection and security concerns.
	PO4	3	Builds knowledge of governance frameworks supporting advanced studies in AI policy and regulation.
	PO5	3	Encourages continuous learning on evolving generative AI tools and responsible usage practices.
	PO6	2	Promotes ethical and responsible use of AI technologies in alignment with societal values.
	PSO1	3	Enhances technical proficiency in applying AI for cybersecurity and secure digital solutions.
	PSO2	3	Encourages application of data protection and security principles in IT-enabled services.
	PSO3	3	Fosters research and innovation in AI governance, regulations, and policy development.
	CO5		
	PO1	3	Provides domain knowledge of AI applications across sectors, enhancing conceptual clarity.
	PO2	3	Develops analytical ability to assess future challenges and opportunities in AI.
	PO3	3	Enables designing human-centered and sustainable AI solutions for societal benefit.
	PO4	3	Builds knowledge of global standards and trends supporting advanced studies in AI.
	PO5	3	Encourages continuous learning to adapt to rapidly evolving AI technologies and innovations.
	PO6	2	Promotes ethical and compassionate use of AI for social good and human well-being.
	PSO1	3	Enhances proficiency in applying AI solutions across diverse real-world domains.
	PSO2	3	Encourages application of AI principles for sustainable and socially responsible IT solutions.
	PSO3	3	Fosters research orientation and innovation aligned with global AI standards and future trends.