

tirpude

INSTITUTE OF MANAGEMENT EDUCATION
 An Autonomous Institute
 (Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)

COURSE TITLE	Data Ethics				
COURSE CODE	DS/DE/001	CREDIT VALUE	2	COMPETENCY LEVEL	Beginner
COURSE DELIVERY	SEMESTER				
PATTERN OF DELIVERY	DAILY				
COURSE FACULTY					
DATE APPROVED				VERSION NUMBER	1.0/2025

RELATIONSHIP WITH OTHER MODULES

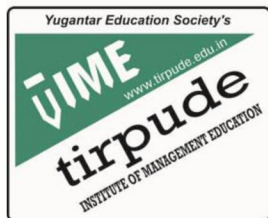
Co-requisites	NO	Pre-requisites	NO		
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COURSE OBJECTIVES

- To help students understand the role of ethics in data science and technology
- To get students accustomed with globally recognized data ethics regulations

COURSE CONTENT

TOPIC/DESCRIPTION	PEDAGOGY	INSTRUCTIONAL HOURS
Unit 1: Introduction to Data Ethics-The role of ethics in data science and technology, key terms and concepts: data privacy, security, bias, fairness, transparency.	Presentation, chalk & talk	4 T
Unit 2: Privacy and Data Protection-Definitions and perspectives on privacy, Overview of key regulations: GDPR, CCPA, HIPAA, Consent, anonymization, and data subject rights, Data Ownership and Access: Who owns the data?, Ethical challenges surrounding data sharing and data monopolies.	Presentation, chalk & talk	8 T
Unit 3: Bias and Fairness in Data: Understanding Data Bias-Types of biases in data (sampling bias, algorithmic bias, etc.). How bias in data impacts decision-making. Defining fairness in the context of algorithms and data use. Approaches to mitigate bias and promote fairness in data practices. Case Studies in Data Bias and Fairness: Analysis of real-world cases of biased algorithms (e.g., facial recognition, credit scoring).	Presentation, chalk & talk	10 T
Unit 4: Global Implications of Data Use- Global data ethics challenges in cross-border data flows, role of ethics in future technologies like block-chain, quantum computing; Ethical Framework: Tools and resources for creating ethical data practices in organizations, future of ethical data governance	Presentation, chalk & talk	8 T



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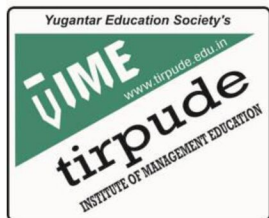
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LEARNING OUTCOMES

1. Student will be able to understand the concepts of data privacy, security, bias, fairness and transparency	
2. Student will get accustomed with data regulations like GDPR, CCPA, HIPAA	
3. Student will be able to understand bias in data and approaches to mitigate it.	
4. Student will be able to understand importance of data ethics in futuristic technologies	
KNOWLEDGE ATTAINED	SKILLS ACQUIRED
<ul style="list-style-type: none"> Students understand the concepts of privacy, security, bias, fairness, transparency. 	
<ul style="list-style-type: none"> Students get accustomed with data regulations like GDPR, CCPA, HIPAA 	
<ul style="list-style-type: none"> Students understand bias in data and approaches to mitigate it. 	
<ul style="list-style-type: none"> Students understand importance of data ethics in futuristic technologies 	

COURSE LEARNING PLAN

Teaching Plan: Enclosed	
Learning Methods: Class PPT, chalk & talk	
Assessment Strategy: Enclosed	
DIRECT CONTACT HOURS	No of hours
Lectures	30
Practical / Seminar	0
TOTAL CONTACT HOURS	30
INDEPENDENT LEARNING HOURS	
Directed reading	10
Seminar preparation/ Case Reading	
Practical/ Lab work/ Internship/ Project Work	
Learning from feedback	
Examination preparation	15
Assignment writing for task	10
TOTAL INDEPENDENT LEARNING HOURS	35
TOTAL STUDENT LEARNING HOURS	65



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INDICATIVE ASSESSMENT:

Number of Assessments	Form of Assessment	Weightage of Marks (out of 100)	Size of Assessment/ Duration/ Word count (indicative only)	Learning Outcomes being assessed
Continuous evaluation-1	Class Assignment	15	Short answers based on units 1 & 2	1,2
Continuous evaluation-2	Class Test	20	Short answers based on units 3 & 4	3,4
Class room Attendance		15		
End Session Exam	Written Exam	50	2 hours duration/ Combination of MCQs, objective questions, short answer questions	All outcomes

COURSE PASS REQUIREMENTS

40% marks (Combined passing)

BIBLIOGRAPHY, REFERENCES AND LEARNING SUPPORT MATERIAL

1. Data Ethics and Analytics By Dr.S.Sujiya, Eswaran. V, Kaviyarasu. K, PRIME INTERNATIONAL PUBLICATION
2. E-resources:
<https://philpapers.org/archive/BRUITD-2.pdf>