**Curriculum Planner**

**Department of Computer Science**

**DISCIPLINE SPECIFIC CORE/ GE: Data Privacy Vth Semester**

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| **Topic** | **Month** | **Ch(s) and Section(s)** | **Ref(s)** |
| **Introduction to Data Privacy and Privacy Regulations:** |  | Ch-1 upto Sec 1.2 | [3] |
|  Notion of data privacy, | August 2024 |  |  |
|  Historical context of data |  | Ch-1 upto pg 8 | [4] |
| privacy,   * Types of sensitive data, * Privacy laws and regulations. |  | Ch-2: 2.1 upto pg 33,  Ch 3: 3.4,  Ch 14: 14.1-14.4 | [2] |
|  |  | Ref [5] complete | [5] |
| **Data Privacy Attacks, Cryptography and Data Protection**:   * Type of Attacks/ Data   Breaches on Data Privacy,   * Impact of Data Breaches / Attacks, * Introduction to cryptography, * Symmetric and asymmetric encryption, * Hashing and digital signatures *  **Class Test-1**. | September  2024 | Ch-1 till Sec 1.11 | [2] |
| **Data Collection, Use and Reuse:**   * Harms Associated with Data collections, use and reuse, * Introduction to data anonymization, * Data Anonymization   Techniques for anonymizing data,   * Challenges in anonymizing   Data  **Class Test-2** | October  2024 | Ch-3: Sec II      Ch-1: Section 1.4-1.7 | [1]      [3] |
| **Ethical considerations in Data Privacy:**   * Privacy and Surveillance, * Ethics of Data Collection and Use, * Bias and discrimination in data analysis * **Revision, Doubt solving, Mock Practical** | November  2024 | Ch-3: Sec III, IV | [1] |

**References:**

1. Ronald Leenes, Rosamunde van Brakel, and Serge Gutwirth: *Data Protection and Privacy: The Age of Intelligent Machines*, Hart Publishing, 2017.
2. Stallings, William. *Information privacy engineering and privacy by design: Understanding privacy threats, technology, and regulations based on standards and best practices*. Addison- Wesley Professional, 2019.
3. Venkataramanan, Nataraj, and Ashwin Shriram. *Data privacy: principles and practice*. Chapman and Hall/CRC, 2016.
4. Jarmul, Katharine. *Practical Data Privacy*. " O'Reilly Media, Inc.", 2023.