**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.