SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25)
Syllabus with effect from the Academic Year 2022-2023

Bachelor of Business Administration
B.B.A (ISM) Semester-IV

Course Code	UM04DBBS73	Title of the Course	**Information Security**
Total Credits of the Course	03	Hours per Week	03 Hours

Course Objectives:	Students come to know about: 1. To prepare students with the technical knowledge and skills needed to protect and defend computer systems and networks. 2. To develop graduates that can plan, implement, and monitor cyber security mechanisms to help ensure the protection of Information technology assets. 3. To develop graduates that can identify, analyze, and remediate computer security breaches.

Course Content		
Unit	Description	Weight age* (%)
1.	**Introduction** Attacks, services and mechanism Security attacks Security services A model for network security	25 %
2.	**Cryptography** Introduction Conventional encryption principles Basic terms : plaintext, cipher text, cryptography, cryptanalysis Substitution ciphers vs. transposition ciphers Types of attack on encrypted messages Introduction to public key cryptography	25 %
3.	**System Security** Intruders Viruses and related threats : trap doors, logic bombs, Trojan horses, viruses,	25 %

SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25)
Syllabus with effect from the Academic Year 2022-2023

	worms, bacteria The nature of viruses Types of viruses Antivirus approaches : detection, identification and removal	
4.	**Network Security** Digital signatures Firewalls : introduction, design principles, characteristics, types, configuration	25 %
...		

Teaching-Learning Methodology	➢ White Board ➢ Presentation ➢ Video ➢ Case Study

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weight age
1.	Internal Written Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to
1. Analyze and resolve security issues in networks and computer systems to secure an IT infrastructure. 2. Design, develop, test and evaluate secure software. 3. Develop policies and procedures to manage enterprise security risks. 4. Evaluate and communicate the human role in security systems with an emphasis on ethics, social engineering vulnerabilities and training. 5. Interpret and forensically investigate security incidents.

Suggested References:

SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25)
Syllabus with effect from the Academic Year 2022-2023

Sr. No.	References
1.	William Stallings: Network Security Essentials (Applications and Standards), Pearson Education India, 2001
2.	Tanenbaum A. S., Computer Networks, Prentice-Hall of India Pvt. Ltd., New Delhi, 1997.

On-line resources to be used if available as reference material
On-line Resources
1.https://theswissbay.ch/pdf/Gentoomen%20Library/Networking/Prentice%20Hall%20-%20Computer%20Networks%20Tanenbaum%204ed.pdf
2.https://www.mbit.edu.in/wp-content/uploads/2020/05/Computer-Networks-5th-Edition.pdf
3. https://ptabdata.blob.core.windows.net/files/2017/IPR2017-01502/v8_Ex.%201010.pdf