GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Business Administration, 3rd Semester
Subject Name: Cyber Security and Information Technology Governance
Subject Code: 1539604

1. Learning Outcomes:

Learning Outcome Component	Learning Outcome (Student will be able to)
Business Environment and Domain Knowledge (BEDK)	• *Identify* and describe the major types of cybercrimes and related laws. • *Distinguish* between various types of cybercrimes and methods of operation of offenders, the types of victims or targets and legal domains of cyber security.
Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	• *Formulate* a framework to enable an organization to classify its information assets. • *Analyze, design*, install, *configure*, document, and troubleshoot network & system hardware and operating systems.
Global Exposure and Cross-Cultural Understanding (GECCU)	• *Appraise* the global perspective of cybercrime and cultural difference in attending such issues.
Social Responsiveness and Ethics (SRE)	• *Assess* the impact of ethical issues in cybersecurity. • *Develop* a balanced approach between security and privacy needs
Effective Communication (EC)	• *Communicate* the importance of IT Governance in today's scenario and handling the cyber issues
Leadership and Teamwork (LT)	• *Create* and maintain an incident response plan to ensure an effective and timely response to information security incidents.

LO – PO Mapping: Correlation Levels:
1 = Slight (Low); 2 = Moderate (Medium); 3 = Substantial (High), "-"= no correlation

Sub. Code: 4549251	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
LO1: *Identify* and describe the major types of cybercrimes and related laws.	3	3	1	2	2	-	-	-	3
LO2: *Distinguish* between various types of cybercrimes and methods of operation of offenders, the types of victims or targets and legal domains of cyber security.	3	2	3	1	-	1	1	-	3
LO3: *Formulate* a framework to enable an organization to classify its information assets.	1	2	3	2	-	1	-	-	-
LO4: *Analyze, design*, install, *configure*, document, and troubleshoot network & system hardware and operating systems.	1	2	3	2	-	2	-	1	3
LO5: *Appraise* the global	1	2	1	-	3	1	-	-	3

GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Business Administration, 3rd Semester
Subject Name: Cyber Security and Information Technology Governance
Subject Code: 1539604

With effective from academic year 2020-21

perspective of cybercrime and cultural difference in attending such issues.									
LO6: *Assess* the impact of ethical issues in cybersecurity.	-	1	3	1	1	2	3	-	-
LO7: *Develop* a balanced approach between security and privacy needs	-	-	-	2	1	3	3	-	-
LO8: *Communicate* the importance of IT Governance in today's scenario and handling the cyber issues	-	-	-	3	2	2	1	1	3
LO9: *Create* and maintain an incident response plan to ensure an effective and timely response to information security incidents.	-	1	-	2	1	3	2	-	3

2. Course Duration: The course duration is of **40 sessions of 60 minutes each.**

3. Course Contents:

Module No.	Contents	No. of Sessions	Marks (out of 70)

I	**Introduction to Cybercrime:**
	• Cyber Crime
	  o Definition and Origin of the Word
	  o Cyber Crime and Information Security
	  o Who are Cyber Criminals
	  o Classification of Cybercrimes
	  o E-mail Spoofing, Spamming, Cyber Defamation
	  o Internet Time Theft
	  o Salami Attack, Salami technique Data Diddling, Forgery, Web Jacking
	  o Newsgroup Spam, Industrial Spying, Hacking, Online Frauds, Pornographic Offenders, Software Piracy, Computer Sabotage Email Bombing, Computer Network Intrusions, Password Sniffing, Credit Card Frauds, Identity Theft
	Legal Perspectives of Cyber Crime:
	• Indian Perspectives
	• Need of Cyber Laws
	• The Cyber Crime And Indian ITAct 2000/2001
	• Hacking and Indian Laws
	• Global Perspective on Cyber Crime
		10	21

GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Business Administration, 3rd Semester
Subject Name: Cyber Security and Information Technology Governance
Subject Code: 1539604

With effective from academic year 2020-21

	• Cyber Crime Era: Survival Mantra for Netizens; Cybercrime and punishment		
II	**Cyber Offenses:** How Criminals plan them, Categories of Cyber Crimes, How Criminal Plans the Attack: Active Attacks, Passive Attacks,Social Engineering, Classification of Social Engineering, Cyber Stalking: types of Stalkers, Cyber Cafe and Cyber Crimes, Botnets, Attack Vectors, Cyber Crime and Cloud Computing **Cybercrime:** Mobile and Wireless Devices, Proliferation of Mobile and Wireless devices, Trends in Mobility, Credit card Frauds in Mobile and wireless devices, Authentication Service Security, Attacks on Mobile/Cellphones, Mobile Devices: Security Implications for Organizations, Organization Security polices and Measures in Mobile Computing Era	8	14
III	**Phishing and Identity Theft:** Phishing: Methods of Phishing, Phishing Techniques, Types of Phishing Scams, Phishing countermeasures, Identity theft, Types and Techniques of identity thefts and its counter measures **Cyber Security**- Organizational Implications: Web Threats for Organization , Security and Privacy Implications, Social Media Marketing: Security risk for organizations, Incident handling: An Essential Component of Cyber Security	8	14
IV	**IT Governance:** Importance, benefits, what does it cover, Performance Measurement: Why is performance measurement important, what does performance measurement cover, who are the stakeholders and what are their requirements, what should we measure, What's best practice **Implementation Roadmap:** Goals and success criteria, how to get started, who needs to be involved and what are their roles and responsibilities **Communication Strategy & Culture:** Who do we need to influence, What are the key messages, Communication best practices, Developing an influencing strategy	10	21
V	**Practical:** Cybercrime: Examples and Mini cases	---	(30 marks CEC)

4. Pedagogy:

The course will use the following pedagogical tools:

- Lectures
- Case Discussions and Role Playing
- Audio-visual Material (Using CDs/Clippings/ online videos)
  o Assignments and Presentations

5. Evaluation:

The evaluation of participants will be on continuous basis comprising of the following Elements:

GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Business Administration, 3rd Semester
Subject Name: Cyber Security and Information Technology Governance
Subject Code: 1539604

With effective from academic year 2020-21

A	**Internal Evaluation**	**(Internal Assessment- 50 Marks)**
	• Continuous Evaluation Component	30 marks
	• Class Presence & Participation	10 marks
	• Quiz	10 marks
B	**Mid-Semester examination**	**(Internal Assessment-30 Marks)**
C	**End –Semester Examination**	**(External Assessment-70 Marks)**

6. Reference Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1.	Nina Godbole & Sunit Belapur	Cyber Security : Understanding Cyber Crimes , Computer Forensics and Legal Perspectives	Wiley	2011
2.	National Computing Centre Limited, National Computing Centre Limited Staff	IT Governance: Developing a Successful Governance Strategy: A Best Practice Guide for Decision Makers in IT	John Wiley & Sons, Incorporated, 2005	Latest Edition
3.	Prof. Dr. Marco Gercke	Understanding cybercrime: Phenomena and legal challenges Responses	ITU 2012	Latest Edition
4	Nina Godbole	Information Systems Security: Security Management, Metrics, Frameworks and Best Practices	Wiley	2017 / 2nd

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

7. Online Resource:
https://www.isaca.org/Certification/CGEIT-Certified-in-the-Governance-of-Enterprise-IT/Prepare-for-the-Exam/Study-Materials/Documents/Developing-a-Successful-Governance-Strategy.pdf

8. List of Journals/Periodicals/Magazines/Newspapers, etc.
- Journal of Cyber Security Technology, Taylor & Francis
- International Journal of Cyber-Security and Digital Forensics (IJCSDF)
- IT Governance Journal