



# GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Business Administration (Part-Time), 5<sup>th</sup> Semester  
**Functional Area Specialization: Information Technology Management**  
**Subject Name: Cyber Security and IT Governance (CSITG)**  
**Subject Code: 4559952**

With effective  
 from academic  
 year 2018-19

## 1. Learning Outcomes:

Learning Outcome Component	Learning Outcome (Learner will be able to)
Business Environment and Domain Knowledge (BEDK)	<ul style="list-style-type: none"> <li>• <i>Identify</i> and describe the major types of cybercrimes and related laws.</li> <li>• <i>Distinguish</i> between various types of cybercrimes and methods of operation of offenders, the types of victims or targets and legal domains of cyber security.</li> </ul>
Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	<ul style="list-style-type: none"> <li>• <i>Distinguish</i> between various types of cybercrimes and methods of operation of offenders, the types of victims or targets and legal domains of cyber security.</li> <li>• <i>Formulate</i> a framework to enable an organization to classify its information assets.</li> <li>• <i>Analyze, design, install, configure, document, and troubleshoot</i> network &amp; system hardware and operating systems.</li> </ul>
Global Exposure and Cross-Cultural Understanding (GECCU)	<ul style="list-style-type: none"> <li>• <i>Appraise</i> the global perspective of cybercrime and cultural difference in attending such issues.</li> </ul>
Social Responsiveness and Ethics (SRE)	<ul style="list-style-type: none"> <li>• <i>Assess</i> the impact of ethical issues in cybersecurity.</li> <li>• <i>Develop</i> a balanced approach between security and privacy needs.</li> </ul>
Effective Communication (EC)	<ul style="list-style-type: none"> <li>• Communicate the importance of IT Governance in today's scenario and handling the cyber issues</li> </ul>
Leadership and Teamwork (LT)	<ul style="list-style-type: none"> <li>• <i>Create</i> and maintain an incident response plan to ensure an effective and timely response to information security incidents.</li> </ul>

**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	<b>Introduction to Cybercrime:</b> <ul style="list-style-type: none"> <li>• Cyber Crime               <ul style="list-style-type: none"> <li>○ Definition and Origin of the Word</li> <li>○ Cyber Crime and Information Security</li> <li>○ Who are Cyber Criminals</li> <li>○ Classification of Cybercrimes</li> <li>○ E-mail Spoofing, Spamming, Cyber Defamation</li> <li>○ Internet Time Theft</li> <li>○ Salami Attack, Salami technique Data Diddling, Forgery, Web Jacking</li> <li>○ Newsgroup Spam, Industrial Spying, Hacking, Online Frauds, Pornographic Offenders, Software Piracy, Computer Sabotage Email Bombing, Computer Network Intrusions, Password Sniffing, Credit Card</li> </ul> </li> </ul>	10	21



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	<p style="text-align: center;">Frauds, Identity Theft</p> <p><b>Legal Perspectives of Cyber Crime:</b></p> <ul style="list-style-type: none"> <li>• Indian Perspectives</li> <li>• Need of Cyber Laws</li> <li>• The Cyber Crime And Indian ITAct 2000/2001</li> <li>• Hacking and Indian Laws</li> <li>• Global Perspective on Cyber Crime</li> <li>• Cyber Crime Era: Survival Mantra for Netizens; Cybercrime and punishment</li> </ul>		
<b>II</b>	<p><b>Cyber Offenses:</b> 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</p> <p><b>Cybercrime:</b> 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</p>	8	14
<b>III</b>	<p><b>Phishing and Identity Theft:</b> Phishing: Methods of Phishing, Phishing Techniques, Types of Phishing Scams, Phishing countermeasures, Identity theft, Types and Techniques of identity thefts and its counter measures</p> <p><b>Cyber Security-</b> 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</p>	8	14
<b>IV</b>	<p><b>IT Governance:</b> 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</p> <p><b>Implementation Roadmap:</b> Goals and success criteria, how to get started, who needs to be involved and what are their roles and responsibilities</p> <p><b>Communication Strategy &amp; Culture:</b> Who do we need to influence, What are the key messages, Communication best practices, Developing an influencing strategy</p>	10	21
<b>V</b>	<p><b>Practical:</b> Cybercrime: Examples and Mini cases</p>	---	(30 marks CEC)



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## 4. Pedagogy:

The course will use the following pedagogical tools:

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

## 5. Evaluation:

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

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

## 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 / 2 <sup>nd</sup>

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