



Training course outline

ITU and National Computer Board / Computer Emergency Response Team of Mauritius

Title	Cybersecurity Techniques: A Hands-On Approach
Modality	Online
Dates	17 – 19 August 2022
Duration	3 days
Registration deadline	12 August 2022
Training fees	Free
Description	The protection of information is a critical function for all enterprises. Cybersecurity is a growing and rapidly changing field that focuses on the protection of information assets that are embedded in internetworked information systems. Given today's technological advances, professionals who are involved in information technologies must be knowledgeable about the central concepts and security implications that frame and define this increasingly all-pervasive field.
Code	22OI28039AFR-E

1. LEARNING OBJECTIVES

After completing this course, attendees will be able to:

- Identify key concepts and terminology in cybersecurity
- Define the key concepts, roles and domains of cybersecurity
- Identify the various types of cybersecurity architecture
- Identify the key components of securing networks, systems and applications and data
- Identify an incident and outline the phases of incident response
- Identify the implications for adaption of evolving technology

2. LEARNING OUTCOMES

This three days' course is designed to provide an overview of Cybersecurity Techniques, as well as to offer insight into the importance of cybersecurity and the integral role of cybersecurity professionals. This course will also cover four key areas of cybersecurity:



- Cybersecurity architecture principles,
- Security of networks, systems, applications and data,
- Incident response, and
- The security implications of the adoption of emerging technologies.

3.TARGET POPULATION

The target audience for this course is as follows:

- Audit, risk, compliance, information security, government and legal professionals with a familiarity of basic information technology and information systems concepts
- Individuals interested in entering the field of cybersecurity
- Individuals who are new to cybersecurity
- System Administrators
- Network Engineers
- Database Administrators

4.ENTRY REQUIREMENTS

Not Applicable

5.TUTORS/INSTRUCTORS

Name of tutor(s)/instructor(s)	Contact details
Kaleem Usmani	kusmani@cert.ncb.mu
Selvana Naiken Gopalla	sgopalla@cert.ncb.mu

6.TRAINING COURSE CONTENTS

Topics to be covered in this course are as follows:

- Cybersecurity Introduction & Concepts
 - Introduction to cybersecurity
 - Cybersecurity Objectives, Roles & Domains
 - Risk
 - Common Attack types & Vectors - MITRE Taxonomy
 - Policies & Procedures
 - Cybersecurity Controls
- Security of Networks, Systems, Applications & Data
 - Process controls – Risk Assessment



- Process controls – Vulnerability management
- Process controls – Penetration testing
- Network Security
- Application Security
- Data Security
- Security Implications & Adoption of Evolving Technology
 - Current Threat landscape
 - Advanced Persistent threats (APTs)
 - Mobile technology – vulnerabilities, threats & risk
 - Cloud security

7. TRAINING COURSE SCHEDULE

Week / Session	Topic	Exercises and interactions
Day 1 17 August 2022 11am – 2pm (Geneva Time)	Cybersecurity Introduction & Concepts	Presentations Discussion Group work Case studies
Day 2 18 August 2022 11am – 2pm (Geneva Time)	Security of Networks, Systems, Applications & Data	Presentations Discussion Group work Case studies
Day 3 19 August 2022 11am – 2pm (Geneva Time)	Security Implications & Adoption of Evolving Technology	Presentations Discussion Group work Case studies

8. METHODOLOGY (Didactic approach)

The training will be carried out online through the ITU Academy Platform. It will include presentations, discussion, group work, case studies and an exam.

9. EVALUATION AND GRADING

An exam will be conducted at the end of the course. Participants are required to get 60% of the marks in order to pass the exam. It is also to be noted that Presentations, Discussions, Group works, and Case studies will not be graded.



10. TRAINING COURSE COORDINATION

Course coordinator: Name: Manish Lobin Email address: mlobin@cert.ncb.mu	ITU coordinator: Name: Mr. Emmanuel NIYIKORA Programme Officer, ITU Area Office for West Africa, DAKAR Tel : +250 788312939 Email address: emmanuel.niyikora@itu.int
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