The RIT Dubai Professional Diploma in Computing Security is an innovative program designed to enable participants to understand and get hands on experience on corporate network and information security best practices. At the end of the Diploma, participants are expected to be able to join a team of professionals solving the challenges of ensuring secure computing environments, and to become leaders within their organizations in the implementation of computing security and information assurance policies and practices.

The Diploma is designed for individuals who have previous education or experience in a computing discipline such as computer science, networking, IT, or software engineering, and would like to enhance their skills to include a foundation in computing security.

This Diploma consists of five practical modules, each lasting one month. It starts with three days of lectures, 9am - 4pm, followed by coached assignments, readings and discussions with the instructors. The fifth module includes completing an individual project coached by the program faculty as well as delivering the final assessment presentation.
### Module 01
**Principles of Computer Systems Security**

1. Security principles, policies and mechanisms.
2. Cryptographic algorithms and techniques.
3. User authentication and access control.
4. Operating systems security.
5. Malicious software.
6. Secure application development, programmatic use of cryptography, and defenses against software exploitation.
7. Secure data management.
8. Impact of mobile, cloud and IoT computing.

### Module 02
**Network Security**

1. Penetration testing.
2. Intrusion detection.
4. Engage in attack/defend scenarios.

### Module 03
**Computer, Network and Mobile Forensics**

1. Extracting, preserving and analyzing volatile/nonvolatile information from digital devices.
2. Exposure to the spectrum of available computer forensics tools.
3. Forensic exploitability of various mobile phone and tablet platforms.
4. Ensuring the admissibility of evidence in court, as well as the legal and ethical implications of the process.

### Module 04 (03 Days)
**Information Security Policy and Law**

1. Information Security Policy development.
2. Information security management and risk management.
3. Proper and appropriate planning for security and response to attacks.
4. Industry case studies of effective and failed security planning and implementation.
5. Cybersecurity legal framework (UAE/GCC and International)

### Module 05
**Project**

The project offers participants the opportunity to investigate a selected topic within the computing security domain and demonstrate their ability as professional, creative and independent thinkers. A project involves a practical development with a deliverable. This may include development with software packages and programming or scripting languages. Alternately, it may be the development and demonstration of an innovative process that addresses a current computing issue or problem.

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