

Faculty of Computers and Information Technology

Computers and Information Security

Information :

| Course Code : | CSS312 | Level | : | Undergraduate | Course Hours : | 3.00- Hours |
|---------------|-----------------------|-------|---|---------------|----------------|-------------|
| Department : | Cybersecurity Program | m | | | | |

Instructor Information :

| Title | Name | Office hours | | | | |
|---------------------|---|--------------|--|--|--|--|
| Associate Professor | HISHAM MOHAMED KORANY DAHSHAN | | | | | |
| Teaching Assistant | Donia Waleed Gamal Seddek Elsayed Hagag | | | | | |
| Teaching Assistant | Ahmed Samy El Saeed Ali Abo Ragab | | | | | |

Description :

The course provides the basic principles of computer and information security. Topics covered in this course are cryptography: symmetric ciphers, asymmetric ciphers, MACs and hash functions, digital signatures, Cryptographic protocols: identification, authorization, authentication and key agreement, anonymity protocols, Fundamental concepts of access control models, threat modelling; hardware security, Usable security: basic human factors, warning design, phishing, device authentication, Security standards and protocols, virtual private networks, OS security: OS concepts, memory and file system, access control, file permissions, memory safety, stack-based buffer overflows, Malware: viruses, trojan horses, worms, rootkits, DNS attacks, Firewalls, Database security. Hands-on is provided through a series of exercises, assignments, and projects.