

Faculty of Computers and Information Technology

Computers and Information Security

Information :

Course Code : CSS312

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Artificial Intelligence Program

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.