

Class Study Guides and Notes

This course will give you foundational information around cybersecurity.

Class 1: Security and Risk Management

- Understand and apply concepts of confidentiality, integrity and availability.
- How to protect data and assets.
- Fundamentals of data privacy
- Provides information about various certifications available.

Class 2: Encryption and Decryption

- Hands on exercise to understand how encryption works.
- Caesar Cypher
- Symmetrical encryption
- Asymmetrical encryption
- Hands on exercise on private and public keys

Class 3: Identity and Access Management (IAM)

- Control physical and logical access to assets
- IAM components
- Authenticate/ Authorization.
- Active directory
- LDAP
- RBAC
- Intro to certificates

Class 4: Communication and Network Security

- Why network?
- Network topology
- Explain open source interconnectivity model.
- Various protocols
- Controls to keep networks safe

Class 5: Network security continued

- TCP/IP
- SSH /TLS
- Certificates
 - How to obtain them
 - How to use them
 - Review sample certificates

Class 6: Lab to put it all together on AWS

- Create a Virtual private network
- Create subnets inside the network - Data/App/Internet zones.
- Create firewall/NIC rules to protect the subnets
- Create machines in each zone and show connectivity possibilities.