



Cryptography

Course Module	Content Overview	Duration
Introduction to Cryptography	Basics of cryptography <ul style="list-style-type: none">- Cryptographic algorithms- Key concepts and terminology	2 weeks
Symmetric and Asymmetric Encryption	Symmetric encryption techniques <ul style="list-style-type: none">- Asymmetric encryption methods- Key exchange protocols	3 weeks
Hash Functions and Digital Signatures	Hash functions <ul style="list-style-type: none">- Digital signatures- Integrity and authenticity	2 weeks
Cryptographic Protocols	Common cryptographic protocols <ul style="list-style-type: none">- SSL/TLS- IPsec and their applications	2 weeks
Advanced Cryptography Techniques	Advanced encryption methods <ul style="list-style-type: none">- Quantum cryptography- Emerging trends in cryptographic technologies	3 weeks
Cryptography in Real-World Applications	Practical applications of cryptography <ul style="list-style-type: none">- Case studies- Implementing cryptographic solutions	2 weeks

