

MRSPTU COURSE PLAN 2016 BATCH
COURSE CODE: MCSE4-206 COURSE: CRYPTOGRAPHY AND NETWORK SECURITY

Class: M.Tech. (CSE & E-Security) Semester: II Session: 2016-17 Batch: 2016

Course: M.Tech. Course: CRYPTOGRAPHY AND NETWORK SECURITY

Course Code: MCSE4-206

Name of Course Coordinator: Prof. Ishpreet Singh Virk Designation: Assistant Professor

College: BBSBEC, Fatehgarh Sahib

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Syllabus for 1 st Mid Semester Test	Security trends, Attacks and services, Classical crypto systems, Different types of ciphers, LFSR sequences, Basic Number theory, Congruences, Chinese Remainder theorem, Modular exponentiation, Fermat and Euler's theorem, Legendre and Jacobi symbols, Finite fields, continued fractions Simple DES, Differential crypto analysis, DES – Modes of operation, Triple DES, AES, RC4, RSA, Attacks – Primality test – factoring
Syllabus for 2 nd Mid Semester Test	Discrete Logarithms, Computing discrete logs, Diffie-Hellman key exchange, ElGamal Public key cryptosystems, Hash functions, Secure Hash, Birthday attacks, MD5, Digital signatures, RSA, ElGamal DSA Authentication applications – Kerberos, X.509, PKI – Electronic Mail security – PGP, S/MIME – IP security – Web Security – SSL, TLS, SET. Intruders, Malicious software, viruses and related threats, Firewalls, Security Standards.
1 st Assignment (Appendix-1)	Date of Issue: 13.01.2017 Last date for Submission: 19.01.2017
2 nd Assignment (Appendix-2)	Date of Issue: 03.02.2017 Last date for Submission: 09.01.2017
3 rd Assignment (Appendix-3)	Date of Issue: 24.03.2017 Last date for Submission: 30.03.2017
4 th Assignment (Appendix-4)	Date of Issue: 14.04.2017 Last date for Submission: 20.04.17

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Date:

Signature:

Note:

1. The filled Performa is to be submitted by the Course Coordinator by email to daa.mrsstu@gmail.com immediately so that the information contained in it can be uploaded on www.mrsptu.ac.in.
2. The assignments are to be attached with email.
3. The Course Coordinators will prepare detailed solutions of the problems contained in the assignments.
4. Both word files and PDF files are to be submitted.