

Teaching Plan

Name of the Faculty : Dr. Rubina Mittal

Name of the Course : B. Sc. (Mathematical Science)

Semester : IV Sec (if any) :

Title of the Paper : queuing and Reliability theory

Month	Topics Covered	References
January 2016	<ol style="list-style-type: none"> 1. General Concepts of queuing systems & intro to Probabilistic processes such as markov process. 2. Measures of Performances. 3. Arrival & Service process. 4. Kendall's notation 5. Poisson exponential distributions in queuing theory. 6. $M / M / I / \infty$ model 7. $M / M / I / k$ model 8. $M / M / e / \infty$ model 9. Birth death process 10. Real life problem on above 	<p>Gross and Harris , Fundamentals of queuing theory</p> <p>U N bhatt : Queuing Theory</p> <p>John G Rau : Systems Engineering</p> <p>PPT on Queuing theory</p> <p>Various other books and articles</p>
Feb 2016	<ol style="list-style-type: none"> 11. $M / M / c / \infty$ model 12. $M / M / c / k$ model 13. Onenes unlimited service. 14. Fianite source queans. 15. Campare $M / M / I / \infty$ & $M / M / 2 / \infty$ model 	<p>Same as above</p>

March 2016	16. Performance. 17. Application of queuing models 18. Basics of reliability & life distributions	Same as above
April 2016	19. Reliability functions. 20. M T BF 21. Hazard rate of whiball & exponential distribution. 22. Series Parallel & the configurations 23. (K,N) models 24. Concepts of Correctionve maintenance	Same as above

Assignments

3rd week of every month

Tests

4th week of January, March

Teaching Plan

Name of the Faculty : Vandana Verma

Name of the Course : BSc(G) Mathematical Science

Semester : IV Sec (if any) : N.A.

Title of the Paper : Differential Equation-I(MAPT-404)

Month	Topics Covered	References
<u>January</u>	Ordinary differential equation: First order exact differential equations, Integrating factors. First order higher degree equations solvable for x, y, p.	1) Differential equations(3 rd edition) by S.L. Ross 2) Elements of partial differential equations by I.

	Methods for solving higher-order differential equations, Wronskian .	Sneddon.
<u>February</u>	Linear non-homogenous equations. The method of variation of parameters, The Cauchy-Eular equation. Simultaneous differential equations. Applications of differential equations.	
<u>March</u>	Partial Differential Equations: Concept of linear and non linear partial differential equations. Formation of first order partial differential equations. Linear partial differential equation of first order. Lagrange's, Charpit's method etc. Classification of second order partial differential equations.	
<u>April</u>	Revisions, tests and evaluation of assignments.	

Note : The tentative date of Assignment/test/Project may also be provided.

The schedule of Practicals may also be provided

Teaching Plan

Name of the Faculty: Nidhi Passi

Name of the Course: B.Sc.(G) Mathematical Science

Semester : IV Sec (if any): --

Title of the Paper : Operating Systems

Month	Topics Covered	References
January	Chapter1 (Introduction) 1.1, 1.4-1.11	A Silberschatz, P.B. Galvin, G. Gagne, Operating Systems Concepts, 8th Edition,

February	<p>Chapter5(ProcessScheduling) 5.1 - 5.3</p> <p>Chapter6(Synchronization) 6.1-6.2</p> <p>Practical- Usage of Unix commands, editors, execution and Interface</p> <p>Chapter8(MemoryManagementStrategies) 8.1 – 8.4(upto 8.4.2),8.6</p> <p>Chapter 9(Virtual Memory Management) 9.1 – 9.2,9.4(9.4.1-9.4.3)</p> <p>+ Test (11th Feb)</p> <p>Practical- based on CPU Scheduling Algorithms</p>	<p>John Wiley Publications</p> <p>The Unix programming Environment by B.W. Kernighan & R.Pike</p> <p>A Silberschatz, P.B. Galvin, G. Gagne, Operating Systems Concepts, 8th Edition, John Wiley Publications</p>
March	<p>Chapter 2(System Structures)2.1 – 2.5, 2.7(2.7.1-2.7.3)</p> <p>Chapter 3(Process Concept) 3.1 - 3.3</p> <p>Chapter4(MultithreadedProgramming)4.1</p> <p>+Test (17th March)</p> <p>+Assignment (21st March)</p> <p>Practical- based on memory allocation algorithms</p>	<p>Based on theory</p> <p>A Silberschatz, P.B. Galvin, G. Gagne, Operating Systems Concepts, 8th Edition, John Wiley Publications</p> <p>Based on theory</p>
April	<p>Chapter 10(File System)10.1–10.3, 10.6</p> <p>Chapter11(ImplementingFileSystems)11.1, 11.4 – 11.5</p> <p>+ Revision</p>	<p>A Silberschatz, P.B. Galvin, G. Gagne, Operating Systems Concepts, 8th Edition, John Wiley Publications</p>

