Lesson Plan 2018-2019
B. A. (P) (Semester V)
DSE-1 Differential Equations

Teacher: Mr. Kapil Kumar   **Workload : 5 Lectures per week**

References:	1. *Calculus* , H. Anton, Birens and S. Davis, John Wiley and Sons, Inc. 2002.
	2. *Differential Equations,* S.L.Ross, John Wiley and Sons, Third Edition, 1984.
	3. *Elements of partial Differential Equations* , I. Sneddon, McGraw-Hill International Editions,

Unit	Week	Topics Covered
1	**Week-1** July 23-27, 2018	First Order Exact Differential Equation including Rules for finding integrating factors.
	Week-2 July 30 - August 3, 2018	First order higher degree equations solvable for x,y,p.
	Week-3 August 6-10, 2018	Wronskian and its properties.
	Week-4 August 13-17, 2018	Linear homogeneous equations with constant coefficients,
	Week-5 August 20-24, 2018	Linear homogeneous equations, Test and Assignment.
	Week-6 August 27-31, 2018	The method of variation of parameters.
	Week-7 September 3-7, 2018	Euler's equation, Simultaneous Differential Equations.
	Week-8 September 10-14, 2018	Total Differential Equations.
2	**Week-9** September 17-21, 2018	Order and Degree of partial differential equations.
	Week-10 September 24-28, 2018	Concept of linear and nonlinear partial differential equations.
	Week-11 October 1-5, 2018	Formation of first order partial differentual equations.
	Week-12 October 8-12, 2018	Linear partial differential equations of first order.
	Week-13 October 22-26, 2018	Lagrange's method, Test and Assignment.
	Week-14 October 29 - November 2, 2018	Charpit's method.
	Week-15 November 5-9, 2018	Classification of second order partial differential equations into ellipt
	Week-16 November 12-16, 2018	Final test(if necessary) and Assignment submission.