Code	Subject Title		Cr. Hrs	Semester
MATH-223	Differential Equations-II		3	IV
Year	Discipline			
2	Physics			

Laplace transforms method for solving differential equations, convolution theorem, system of equatins, initial value problems, Nonlinear equations, singular solution, Clairaut equation, Bernaulli equation, Riccati equation etc. Power series solution, convergence of power series, ordinary and singular points, solutions near singular points.

Books Recommended:

1. *Advanced Engineering Mathematics* by E. Kreyszig, Wiley, New York, 1999.
2. *Mathematical Methods for Physicists* by G. B. Arfken and H. J. Weber, A Press, New York, 1995.
3. *Mathematical Methods for Physics and Engineering* by K. F. Riley, M. P. Hobson and S. J. Bence, Cambridge University Press, 1997.
4. *A First Course in Differential Equations with Applications* by G. D. Zill Windsor and Schmidt, Prinder R. E. Williamson 1997.
5. *An Introduction to Differential Equations and Dynamical Systems*, McGraw-Hill, 1982.
6. *An Introduction to Differential Equations and their Applications* by S. J. Farlow, McGraw-Hill, 1994..