

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
COMP-212	Computer Science-II	4	IV
Year	Discipline		
2	Physics		

Program organization and control structure, solution of linear algebraic equations, interpolation and extrapolation, integration of functions. evaluation of functions, random numbers, sorting, root finding and non-linear sets of equations, statistical description of data, modeling of data, boundary value problems, partial differential equations.

Computer as a tool, arithmetic and algebra, functions and procedures. calculus, graphics, problems in general *physics*: projectile motion, *electricity* and magnetism, electric *circuit* analysis, oscillating systems, Lagrangians and Hamiltonians, electrostatics, quantum mechanics, relativity and cosmology.

Recommended Books:

1. Numerical Recipes: The Art of Scientific Computing by William H. Press, Brian P. Flannery, Saul A. Teukolsky, and William T Vetterling Cambridge University Press. Cambridge, 1988.
2. Mathematica for Physics: Robert L. Zimmerman Addison Wesley Publishing Company, 1994.