SYLLABUS :-
Prerequisite: void

Metric spaces, complete metric spaces, Banach contraction mapping theorem.
Banach spaces, bounded linear functionals and bounded linear operators, dual
spaces, Hahn-Banach theorem, uniform boundedness principle, open mapping and
closed graph theorems, weak convergence, Hilbert spaces, orthonormal sets,
Riesz representation theorem, bounded linear operators on Hilbert spaces.