Code	Subject Title	Cr. Hrs	Semester
MATH-222	Pure Mathematics	3	III
Year	Discipline		
2	Physics		

Sets, relations between sets and operations on sets, Venn diagrams, mappings and their composition, inverse mappings, mathematical logics, statements, conditional statement, axioms, definitions, and theorems, rules of inference and mathematical proof, methods of proof, sequences, the limit of a sequence.

Definition and examples of topological spaces, discrete and indiscrete topologies, coarser and finer topologies, open and close sets, neighborhood, bases and sub bases, limit point, continuity and homeomorphism, metrics and metrics spaces.

Books Recommended:
1. *Principal of Modern Algebra* by J.E. Whitesitt, Addison-Wesley, 1964.
2. *Introduction to topology* by M. Mansfield, Prentice Hall, 1964.