

Subject Code: 1SC2040303	Subject Title: GENERAL TOPOLOGY
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Course Objective:

- This is an introductory course in General Topology which provide a working knowledge of the basic definitions and theorems of the Topology, Continuous Functions, Connectedness and Compactness, described in detail in the syllabus.

Teaching scheme (hours) per week		credit		Theory Marks		Practical Marks		Total
Theory	Tutorial	Theory	Tutorial	University Assessment	Cont. Assessment	University Assessment	Cont. Assessment	
4	1	4	1	60	40	-	-	100

Subject Contents			
Unit. No	Topic	Total Hours	Weight (%)
1	Topology and topological spaces, Neighbourhoods, Hausdorff space, Closure of a subset of a topological space.	16	25
2	Interior of a subset of topological space, Boundary of a subset of a topological space, Continuity of a function from topological space to topological space, Homeomorphism between two topological spaces. Subspace of a topological space.	20	25
3	Connected spaces, path connected spaces, connected sets in the real line, components and path-components, locally connected spaces and path Connected spaces.	18	25
4	Compact spaces, compact sets in the real line, limit-point compactness, locally compact spaces, one-point compactification.	18	25

Course Outcome:

On successful completion of the course, students should be able to

- Students will be able to Understand the concept of Topology, Continuous Functions, Connectedness and Compactness.

Note: The course is covered by “Topology – A first course” – by J. R. Munkres, Prentice – Hall of India, 1992.

List of References:

- “General Topology” – by S. Willard, Addison Wesley, 1970.
- “Topology” – by J. Dugundji, Prentice – Hall of India, 1975.
- “Aspects of Topology” – by C. O. Christonson and W. I. Voxman, Marcel Dekker Inc., 1977.
- “General Topology” – by J. L. Kelley, D. Van Nostraml, 1950.