

Branch Name:	B.Sc. Mathematics
Program Code:	SC104
Course Name:	General Topology
Course Code:	2SC1040603
Pre-requisite Course:	

Course Objectives:

1. To understand the concept of Differential Equations.
2. To understand the methods of C.F. and P.I.
3. To know about the solution of linear and non linear differential equations which are exact.
4. To understand the concept of Laplace and Inverse Laplace Transforms.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
3	--	--	3	70	30	--	--	100

Subject Contents:

Sr. No	Topic	Total Hours	Weightage (%)
1	Topology and topological spaces, Neighbourhoods, Hausdorff space, Closure of a subset of a topological space.	18	34
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.	15	33
3	Compact spaces, compact sets in the real line, limit-point compactness, locally compact spaces, one-point compactification.	15	33

Reference Books:

1. Introduction to Topology and Modern Analysis, by. "G F Symmons", New York McGrawHill, 1963
2. General Topology by Kelly J L , NewYork, Van Nostrand 1955
3. Elementary Topology by Beckett D W., New York Academic press, 1967

List of Open Source Software/learning website:

1. <https://www.youtube.com/watch?v=U4jWYPrb0iw>
2. <https://www.youtube.com/watch?v=XFRFZgti9Ak>
3. https://www.youtube.com/watch?v=e_taEy7hoiA

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Describe Topological Space.	1 Remembering
CLO2	Discuss the knowledge on Interior of a subset of topological space.	2 Understanding
CLO3	Use Boundary of a subset of a Topological Space and solve Example of its.	3 Applying
CLO4	Explain Homeomorphism between two topological spaces.	4 Analysing
CLO5	Know the compact space to Justify limit–point compactness.	5 Evaluating
CLO6	Create an example of Continuity of a function from topological space to topological space.	6 creating

Mapping of CLOs with Pos & PSOs:

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes (PSOs)			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CLO1		M	L							L			L	L		
CLO2	L	M							M	L			L			M
CLO3	L	M								L		L	M		L	
CLO4	L	H							L				M	L		
CLO5	M	L		M						L			L	L		
CLO6	L	H	H						M							L

H: High, M: Medium, L: Low