

1.	Title of the course	Fixed Point Theory
2.	Course number	MA607L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To MA6102/2
6.	To be offered by	Department of Mathematics and Statistics
7.	To take effect from	July 2022
8.	Prerequisite	Functional Analysis
9.	<b>Course Objective(s):</b> To learn some of the classical fixed point theorems and its applications	
10.	<b>Course Content:</b> Contraction Principle, and its variants and applications; Fixed points of nonexpansive maps and set valued maps, Brouwer -Schauder fixed point theorems, Ky Fan Best Approximation Theorem, Principle and Applications of KKM -maps, their variants and applications. Fixed Point Theorems in partially ordered spaces and other abstract spaces. Application of fixed point theory to Game theory and Mathematical Economics	
11.	<b>Textbook(s):</b> 1. Khamsi M A and Kirk W A, <i>An introduction to Metric Spaces and Fixed Point Theory</i> , Wiley - Inter Sci. New York (2001).	
12.	<b>Reference(s):</b> 1. Kirk W A and Sims B, <i>Hand Book of Metric Fixed Point Theory</i> , Springer, Netherlands (2001). 2. Border K C, <i>Fixed point theorems with applications to economics and game theory</i> , Cambridge University Press, Cambridge (1985). 3. Singh S, Watson B and Srivastava P, <i>Fixed Point Theory and Best Approximation: The KKM - map Principle</i> , Kluwer Academic Publishers, Dordrecht (1997).	