भारतीय प्रौद्योगिकी संस्थान तिरुपति
TIRUPATI

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI
भारतीय प्रौद्योगिकी संस्थान तिरुपति
Yerpedu-Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517 619

1.	Title of the course	Design of Experiments
2.	Course number	MA632L
3.	Structure of credits (L-T-P-C)	2-0-0-2
4.	New course/modification to	New
5.	To be offered by	Mathematics and Statistics
6.	Prerequisite	CoT
7.	**Course Objective(s):** To discuss the analysis of variance and experimental designs to analyze data from supervised experiments. To describe the properties and applications of these designs using datasets.	
8.	**Course Content:** Definitions and terminologies of design of experiments, analysis of variance, completely randomized design (CRD), randomized block design (RBD), Latin square design (LSD), analysis of covariance (ANOCOVA), missing plot technique, factorial experiments, confounding, split plot design, balanced incomplete block design (BIBD).	
9.	**Textbook(s):** 1. Montgomery D C, Design and Analysis of Experiments, 10th Edition, John Wiley & Sons (2019).	
10.	**Reference(s):** 1. Toutenburg H, Shalabh S and Shalabh H, Statistical Analysis of Designed Experiments, 3rd Edition, Springer (2009). 2. Casella G, Fienberg S and Olkin I, Statistical Design, Springer (2008).	