



Course Title: **Prescriptive Analytics**

Credit Units: **3**

Course Level: **PGDip/PG**

Course Code: **CSIT706**

L	T	P/ S	SW/F W	TOTAL CREDIT UNITS
3	-	-	-	3

**Course Objectives:**

The objective of this course is to impart knowledge about Prescriptive analytics and automatic synthesis of big data and using artificial intelligence to synthesize business rules.

**Prerequisites:**

Basic knowledge of Data Analysis

Course Contents / Syllabus:		Weightage
1	<b>Module I : Predictive Analytics</b>	25%
	Predicting outcomes: Lending analytics, Recommendation Analytics, Quality of prediction: Healthcare Analytics and Financial Analytics, Sports Analytics	
2	<b>Module II : Advanced predictive analytics</b>	25%
	Creating data for analytics through designed experiments, Active learning and Reinforcement learning Non-parametric regression and Classification, Time series, Advanced QC approaches, Retail Analytics, Pension Analytics, Salesforce Analytics, Portfolio Analytics, Supply Chain Analytics.	
3	<b>Module III: Optimization and heuristics</b>	25%
	Integer programming Non-linear programming Local search Genetic Algorithm Simulated annealing Meta heuristics	
4	<b>Module IV: Analytics for Big Data</b>	25%
	Unstructured data values	

**Student Learning Outcomes:**

After successful completion of the course, student will be able to:

- Describe concepts of prescriptive Analytics.
- Apply concept of prescriptive analytics for data analysis.
- Identify Hadoop and MapReduce technology.

**Pedagogy for Course Delivery:**

- Class lectures, interactive presentation, discussion and practice

**Assessment/ Examination Scheme:**

Theory L/T (%)	Lab/Practical/Studio (%)	End Term Examination
100	-	100

**Theory Assessment (L&T):**

Continuous Assessment/Internal Assessment					End Term Examination
Components (Drop down)	Mid Term	Assignment	Viva	Attendance	
Weightage (%)	10	10	05	5	70

**Web References:**

<http://nptel.ac.in/syllabus/110106064/>