



Post Graduate Diploma in Management (PGDM)

**FINANCIAL & RISK ANALYTICS (FN635)**

CREDIT: 1.5 credits

SESSION DURATION: 60 Minutes

TERM: V  
YEAR: 2021-2022

**Faculty:** Dr. Sougata Ray

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**Office hours:** 9:30 AM to 5:30 PM

**Consulting hours:** 4 PM to 5: 30 PM

**Course Introduction:** Data analytics has become the need of hour for the students in almost every field of study. Availability of high-quality data and that too in large number requires processing which will help the organizations to make suitable decisions much faster. Advanced tools like value at risk analysis, default prediction tools, Monte-Carlo simulation etc. are available and this course is designed to cater to the industry requirements.

**Course Objectives:** The basic objective of this course is to expose the students to various risk analytics tools as used in finance. The course requires students to have prior knowledge of basic statistical methods.

**Course Pedagogy:** This course is predominantly lab based. Regular assignments will also be given to the students to test their understanding apart from other evaluation criteria.

**Learning Objectives:**

1. To provide a wholistic understanding about financial risk and data analytics.
2. To impart training with data for default prediction
3. To learn about Value of Risk Concept and its application
4. To learn and use Monte Carlo Simulation as a decision making tool.

**Readings:**

1. Credit Risk Management – S.K.Bagchi (JAICO) – B1
2. Business Forecasting – Hanke and Wichern (Pearson) – B2
3. Market Models – Carol Alexander (Wiley) - B3

**Evaluation:**

Assignment	20%
Quiz	20%
Project:	20%
End Term	40%

### Session Plan

Session No.	Topic	Learning Outcomes	Readings/ Cases
1-2	Introduction – Anatomy of Risk, Types of Risk, Risk Management	LO1	B1 – chapter 1, 2, 3
3	Understanding Credit Risk	LO1	B1 – chapter 4, 6, 7
4 – 5	Model to Predict Probability of Default (PD)	LO2	Lecture notes
6 – 9	Understanding and setting up LGD, EAD Models	LO2	Lecture notes
10 – 12	Value at Risk Modelling	LO3	B3 – chapter 9, Lecture notes
12 – 15	Monte Carlo Simulation – Predicting Earnings	LO4	B3 – chapter 9, Lecture notes