

16:958:536 Advanced Risk Management

Instructor: Dr. Neville O'Reilly

Description: The emphasis of this third semester course will be on case studies In the application risk management tools, models and processes in financial institutions . Much of the course will be taught by industry practitioners and reading will be assigned in class.

Final Project: A final group project using redacted client data will be assigned.

Depending on the practitioners involved, the case studies can vary by academic year. The Fall 2015 schedule is attached for illustration of the type of topics and material covered

S N o	Topic	Sub Topic	Practitioner	Date
1	Introduction to MRM	a. Definition of a model - Difference between a Model, Calculator and Analysis; b. What is Model Risk Management(MRM); c. Sources of model risk; d. Regulatory expectations around MRM (SR 11-7 etc.); e. Elements of MRM f. Three Lines of Defense; g. Roles and Responsibilities of ABC Bank from MRM perspective; h. Model Tiering; i. Model Inventory	Moorthy PSS	Sep 28th
	Model Validation + Documentation	a. Model validation approach as per SR Letter 11-7; b. Model validation – Detailed Genpact case studies c. Validation of Vendor Models; d. Sample model validation report review; e. Model Documentation		
2	Market Risk - Basics	a. Evolving Regulatory world and how mkt players are responding; b. what is the specific focus on Traded Risk and Balance Sheet Risk – FRTB, CLAR, IRRBB, SECL, CVA c. Behavioral aspects in Market Risk quantification	Kaustav M	Oct 5th
	Market Risk - Intermediate	a What and how modeling for Market risk is different to typical statistical risk modeling; b typical measures of market risk – VaR, PFE, Greeks; c. Brief exercises on VaR, Valuations and Exposure		
3	Counterparty Credit Risk Reading and Assignment	a. Banking Risk Identification, Measurement, and Reporting ; b. Regulatory Frameworks for Banking Data Reporting , Different Risk Data Attributes for Regulations ; c. Data Governance, Data Management Process, Concepts, Data Roles, Data Governance Function; d. Data Quality Controls, Data Understanding & Data Quality Checks ; e. Business Intelligence and Reporting & Business Technology Management	Neville O	Oct 12th
4	Regulatory Framework	a. Why Financial regulation; b. Banking Structure in US; c. Review of the regulators in US; d. How do the regulators regulate?; e. CAMELS; f. Informal and formal regulatory actions;g. OCC PPM 5310-3; h. Examples of MRA, MRIA, MOU	Tushar W	Oct 19th

5	Model Development	<p>a. Determine data, data periods, data filters; b. Develop performance definition; c. Selection of model data (observation and performance exclusions); d. Selection of variables ; e. Determine appropriate modeling technique</p> <p>f. Generate Performance and output metrics; g. Generate variable robustness to time periods (performance in BAU and recession scenarios); h. Generate benchmarking and sensitivity tests</p>	Tushar W	Oct 26th
6	Financial Crimes	<p>a. Trends in AML; Implications – Increasing focus on AML Compliance; Anti-Money Laundering Overview and Key Global Regulations; b. Customer Screening; Overview of KYC requirements ; c. Transaction Monitoring ;</p> <p>d. Client Risk Rating</p> <p>e. Customer Due Diligence/ Enhanced Due Diligence ; f. Case Studies</p>	Supriya G	Nov 2nd
7	<p>1) Data Management and Reporting</p> <p>2) Consultancy Overview</p>	<p>Data Management and Reporting</p> <p>a. Banking Risk Identification, Measurement, and Reporting ; b. Regulatory Frameworks for Banking Data Reporting , Different Risk Data Attributes for Regulations ; c. Data Governance, Data Management Process, Concepts, Data Roles, Data Governance Function; d. Data Quality Controls, Data Understanding & Data Quality Checks ; e. Business Intelligence and Reporting & Business Technology Management</p> <p>Consultancy Overview</p> <p>a. Parley skills; b. Time and Project Management; c. Handling customer conversations</p>	Parijat B / Tushar W	Nov 9th

November 16: Operational Risk 1, Phillipa Girling, , SVP, Chief Risk Officer -Investors Bank
 December 7: Operational Risk 2, Philippa Girling, , SVP, Chief Risk Officer -Investors Bank
 Nov. 24 - Dec 14: Class Project