Predictive Analytics
Syllabus

Week/Module	Topics
Week 0: Course Prerequisites	- Course Overview - Descriptive Analytics - Probability Distribution - Hypothesis Testing - Analysis of Variance - Software Installation
Week 1: Introduction to Analytics	- Introduction to Analytics - Analytics in Decision Making - Game changers & Innovators - Predictive Analytics - Experts' view on Analytics
Week 2: Simple Linear Regression (SLR)	- Case-let Overview - Introduction to Regression - Model Development - Model Validation - Demo using Excel & SPSS
Week 3: Multiple Linear Regression (MLR)	- Multiple Linear Regression - Estimation of Regression Parameters - Model Diagnostics - Dummy, Derived & Interaction Variables - Multi-collinearity - Model Deployment - Demo using SPSS
	Mid – Term Assessment
Week 4: Logistic Regression	- Discrete choice models - Logistic Regression - MLE Estimation of Parameters - Logistic Model Interpretation - Logistic Model Diagnostics - Logistic Model Deployment - Demo using SPSS
Week 5: Decision Trees and Unstructured data analysis	- Introduction to Decision Trees - CHI-Square Automatic Interaction Detectors (CHAID) - Classification and Regression Tree (CART) - Analysis of Unstructured data - Naive Bayes Classification - Demo using SPSS

Week 6: Forecasting and Time series Analysis	• Forecasting • Time Series Analysis • Additive & Multiplicative models • Exponential smoothing techniques • Forecasting Accuracy • Auto-regressive and Moving average models • Demo using SPSS
	End – Term Assessment

Final Exam Details:

If you wish to obtain a certificate, you must register and take the proctored exam in person at one of the designated exam centres. The registration URL will be announced when the registration form is open. To obtain the certification, you need to fill out the online registration form and pay the exam fee. More details will be provided when the exam registration form is published, including any potential changes. For further information on the exam locations and the conditions associated with filling out the form, please refer to the form.

Grading Policy:

Assessment Type	Weightage
Mid-Term & End-Term	25%
Final Exam	75%

Certificate Eligibility:

• 40% marks and above in Mid Term & End Term
• 40% marks and above in the final proctored exams

Disclaimer: In order to be eligible for the certificate, you must register for enrolment and exams using the same email ID. If different email IDs are used, you will not be considered eligible for the certificate.