NICF – Business Analytics with Machine Learning
www.gicttraining.com

Duration

2-Days

Course Objectives

Machine Learning (ML) refers to the usage and development of computer systems that can adapt without any explicit instructions. This is achieved with algorithms and statistical models to analyse and draw inferences from patterns in business data. In Business Analytics, ML serves as a key-driving force for revenue enhancement. It uses data to identify patterns and trends in market and customer behaviour and enables businesses to understand the market better and create better products and services. This course is designed to transfer the knowledge and skillsets of business analytics and machine learning to learners.

Course Outcomes

- Learners will be able to extract and interpret data patterns to acquire business insights.
- Learners will be able to manage data science projects with CRISP-DM Framework.
- Learners will be able to perform supervised machine learning models to gain business insights.
- Learners will be able to perform unsupervised machine learning models to evaluate hypothesis.
- Learners will be able to communicate the findings and make recommendation to guide organizational decision.

Target Audience

- Fintech Industry & Banking Professionals
- ICT Professionals
- Database Administrators, Entrepreneurs
- IHL Students

Pre-Requisites

Knowledge and Skills

- Able to operate using computer functions
- Minimum 3 GCE ‘O’ Levels Passes including English or WPL Level 5 (Average of Reading, Listening, Speaking & Writing Scores)

Experience

- Minimum of 1 year of working experience.

Program Structure

Component 1: Written Examination (MCQ)
40 Questions
1 Hour duration
Closed Book
Score 70% to pass

Component 2: Project Work Component (PWC)
Individual work
2 weeks to complete from the last day of course
Score 70% to pass

These components are individual based. Participants will need to obtain 70% in both the components in order to qualify for this certification. If the participant fails in one of the components, they will not pass the course and have to re-take that particular failed component. If they fail both components, they will have to re-take the assessment.

Course Session Schedule

	Session 1 (9.00-10.30)	**Session 2 (10.30-12.00)**	**Session 3 (1.00-3.00)**	**Session 4 (3.00-5.00)**
1	Topic 1 Introduction to Data Modelling and Analytics	Topic 2 CRISP-DM Framework	Topic 3 Data Analysis with Supervised Learning Algorithms	Topic 3 Data Analysis with Supervised Learning Algorithms
	Session 1 (9.00-10.30)	**Session 2 (10.30-12.00)**	**Session 3 (1.00-4.00)**	**Session 4 (4.00-5.00)**
2	Topic 4 Data Analysis with Unsupervised Learning Algorithms	Topic 5 Performance Metrics and Reporting	Topic 5 Performance Metrics and Reporting	Examination

Course Outline

Topic 1 Introduction to Data Modelling and Analytics

- DIKW pyramid
- Descriptive analytics
- Diagnostic analytics
- Predictive analytics
- Prescriptive analytics
- Case studies on notable organizations (Google, Walmart, JetBlue)

Topic 2 CRISP-DM Framework

- CRISP-DM framework

- CRISP-DM main phases
- CRISP-DM sub-phases

Topic 3 Data Analysis with Supervised Learning Algorithms

- Correlation analysis
- Linear Regression
- Logistic Regression
- Decision Tree
- Neural Network

Topic 4 Data Analysis with Unsupervised Learning Algorithms

- Data exploration through data visualization
- Sampling Techniques
- Association rules
- Cluster Analysis

Topic 5 Performance Metrics and Reporting

- Components of Performance Matrix
- Radio Operating Characteristics (ROC) Curve
- Area Under Curve (AUC) Analysis
- Leadership for analytics
- Data Analytics Competency Framework
- Data Science KPI Groups
- Agile Metrics
- Lean Metrics