

# **ANL309 Business Analytics Applications**

**Level:** 3

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JAN

## **Synopsis:**

This course introduces various applications of business analytics in customer relationship management (CRM). The course covers a wide range of CRM applications, including customer acquisition and segmentation, cross-selling and up-selling, customer loyalty, retention and churn, credit scoring and fraud detection. To be effective, the results of a business analytics project must be actionable. To this end, the course emphasises the cross-industry standard process for data mining (CRISP-DM) in the applications of business analytics to CRM.

## **Topics:**

- Customer Relationship Management (CRM) Concepts
- Cross-Industry Standard Process for Data Mining (CRISP-DM) Framework
- Customer Acquisition and Segmentation Concepts
- Data Mining Models for Customer Acquisition and Segmentation
- Cross-Selling and Up-selling Concepts
- Data Mining Models for Cross-Selling and Up-Selling
- Customer Loyalty, Retention and Churn Concepts
- Data Mining Models for Customer Loyalty, Retention and Churn Analysis
- Credit Scoring Concepts
- Data Mining Models for Credit Scoring
- Fraud Detection Concepts
- Data Mining Models for Fraud Detection

## **Textbooks:**

: Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management John Wiley & Sons

ISBN-13: 9781118275603

**Learning Outcome:**

- Organise the key concepts relevant to Customer Relationship Management (CRM) analytics.
- Distinguish the differences between cross-selling and up-selling.
- Describe customer loyalty, retention and churn.
- Discuss credit scoring concepts.
- Examine the different predictive modelling techniques used in fraud detection.
- Set up the CRISP-DM framework for a data mining problem.
- Evaluate the application of CRM business analytics.
- Interpret the credit scores.
- Implement business analytics techniques with the use of appropriate software.

**Assessment Strategies:**

<b>Continuous Assessment Component</b>	<b>Weightage (%)</b>
PARTICIPATION	6
PRE-COURSE QUIZ	2
GROUP BASED ASSIGNMENT	38
PRE-CLASS QUIZ	2
PRE-CLASS QUIZ	2
<b>Sub-Total</b>	<b>50</b>

<b>Examinable Component</b>	<b>Weightage (%)</b>
Written Exam	50
<b>Sub-Total</b>	<b>50</b>

**Weightage Total** **100**