

# **ANL551 Data Analytics for Decision Makers**

**Level:** 5

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JAN

## **Synopsis:**

Data Analytics for Decision Making presents Data Analytics as a key modern approach for decision making in business organisations. It examines the key aspects of Business Analytics, namely Business, Data and Analytics aspects. For the Business Aspect, students will learn how to analyze a business scenario to formulate the business problem. For the Analytics aspect, students will learn to apply a range of analytics and data visualization techniques, and learn how to rate a range of candidate techniques and select the most appropriate technique for constructing the analytics solution. For the Data aspect, students will learn to assess the quality of data and prepare data required for constructing an analytics solution to the business problem. Students will then learn to design effective analytics solutions to solve business problems. Finally, students will learn to interpret analytics results and make inference to formulate initiatives to improve organisation performance.

Professionals who are familiar with business analytics for management are highly sought-after in today's competitive market. This course will equip students with the key skills in business analytics and data visualization. Through projects, students will gain experience in turning big data into important insights that could better organisation performance. We will use the state-of-the-art IBM SPSS Modeler software package in this course.

## **Topics:**

- Business Analytics as a key modern approach in business management
- Business Analytics Cycle
- Overview of Data Mining
- Advanced Analytics Techniques
- Customer Analytics
- Social Analytics
- Operational Analytics
- Construct analytics solution using application software
- Data Exploration and Visualisation
- Data Preparation
- Predictive Modelling

## **Textbooks:**

David Roi Hardoon, Galit Shmueli: Getting Stated with Business Analytics: Insightful Decision-making  
Taylor and Francis  
ISBN-13: 9781498759670-AA

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**Learning Outcome:**

- Rate the different levels of analytics
- Assess the key aspects of Business Analytics Cycle
- Appraise the application of basic and advanced analytics techniques
- Appraise the application of customer, social, and operational analytics
- Construct an analytics solution using application software
- Assess the quality of data for analytics
- Prepare data for mining and analysis
- Select an appropriate analytics technique
- Plan an analytics project

**Assessment Strategies:**

<b>Continuous Assessment Component</b>	<b>Weightage (%)</b>
PRE-COURSE QUIZ	10
GROUP BASED ASSIGNMENT	25
PARTICIPATION	15
<b>Sub-Total</b>	<b>50</b>

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

**Weightage Total** **100**