# Financial Modeling using Excel

## Overview

This module will introduce the fundamental concepts of financial modeling using Excel.

# Learning Outcome Statements

- Design and construct robust financial modeling applications
- Use excel support tools and techniques for financial forecasting
- Utilize sensitivity and scenario analysis
- Significantly improve efficiency of using shortcuts
- Use financial functions efficiently

# **Key Contents**

- Financial Modelling Functions
  - Internal Rate of Return
  - Net Present Value
  - Volatility
  - o Trend Analysis
  - Value At Risk
  - Monte Carlo Simulations
- Sensitivity Analysis
- Scenario Analysis
- Implementing a break-even analysis
- Loans
  - Loan amortisation
  - o Implementation of annuity-based payments
  - o Implementation of straight-line amortisation
  - Modelling interest expense

### Basics for Financial Modelling

- Breakdown & grouping of accounting elements
- Determine drivers of the model
- Assumptions for projections



#### **Building Models**

- Projection of P&L, balance sheet and cash flow
- Balancing numbers
- How to deal with circular references
- How to prevent circular references
- protection, range names, data validation
- Building a model with assumptions

### Valuation Concepts

- Company valuation techniques
- Practical application of valuation constituents
- Weighted Average Cost of Capital (WACC)
- Free Cash Flow (FCF) methods
  - o Terminal Value liquidity pricing