
SYLLABUS FOR BOARD OF STUDIES ADOPTION — generated from the live catalogue record

Quantitative Analytics for Finance and Business

S-09B · 3 days (configurable 1–5 days) · Informatics · Data & Analytics · Years: 2nd, 3rd, PG

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OVERVIEW

Time series, forecasting, risk basics and a working forecasting model.

Forecasting and risk analytics drive decisions in every business; students who can build a working forecasting model bring directly employable quantitative skills.

HOURS AND CREDIT POSITION

Contact hours: 24 Guided project: 6 Self-study: 0 Notional total: 30

Credit claim: 1

30 notional hours ÷ 30 hours per credit (NSQF track, UGC Micro-credentials Guidelines §5.3.3) = 1 credits.

COURSE OUTCOMES

CO1. Describe the quantitative analytics workflow for a business problem (K2)

CO2. Decompose a time series into trend and seasonality (K4)

CO3. Build a forecasting model using appropriate methods (K3)

CO4. Evaluate forecast accuracy using error metrics (K4)

CO5. Produce a forecast with a documented business recommendation (K5)

COURSE CONTENT — MODULES

Hours shown are the recommended format; module time scales proportionally when the engagement runs 1–5 days.

Module 1 — Business analytics foundations (4h recommended)

Theory: The quantitative workflow, data sources

Lab: Frame a business forecasting question

Output: Framing note

Module 2 — Time series basics (4h recommended)

Theory: Trend, seasonality, decomposition

Lab: Decompose a business time series

Output: Decomposition notebook

Module 3 — Forecasting methods (4h recommended)

Theory: Moving averages, exponential smoothing, ARIMA basics

Lab: Build competing forecasts

Output: Forecast notebook

Module 4 — Risk fundamentals (4h recommended)

Theory: Variability, scenario analysis

Lab: Run a scenario analysis

Output: Scenario table

Module 5 — Model evaluation (4h recommended)

Theory: Forecast-error metrics, backtesting

Lab: Backtest and score forecasts

Output: Evaluation report

Module 6 — Forecasting capstone (4h recommended)

Theory: A working forecasting model on business data

Lab: Produce a forecast with a recommendation

Output: Forecast + recommendation

ASSESSMENT SCHEME (100 MARKS)

Continuous lab exercises — 40 marks

Analytical report — 40 marks

Viva voce — 20 marks

CO-PO MAPPING

CO1 !' PO1 (strength 2)

The analytics workflow is foundational knowledge.

CO2 !' PO4 (strength 2)

Decomposition is investigation of the series.

CO3 !' PO3 (strength 2)

Building a forecast is solution development.

CO4 !' PO4 (strength 2)

Error evaluation is investigation.

CO5 !' PO10 (strength 2)

The recommendation is professional communication.

EVERY PARTICIPANT RECEIVES

- Certificate of completion
- Course material
- LMS access
- Interview question bank
- Mock interview & viva practice
- Optional nasscom NSQF assessment (priced per candidate on your quotation)

FEE

11,900 per student, incl. GST

Excludes the optional nasscom assessment where offered. Final pricing on your college's quotation.

DESIGNED BY

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