IKHAYA CREDIT ANALYTICS
in association with Matengo & Associates

Financial Modelling for Credit Risk

Six-day masterclass

Four levels of mastery: Foundation · Build · Integrate · Synthesise

Programme document

Kigali, Rwanda · 2026

Lead facilitator: Shalton Ogola

All institutions, borrowers and figures in the programme cases and workbooks are synthetic. No client data is used.

1. Programme philosophy

This masterclass teaches credit professionals to build and use financial models to make credit decisions. It starts with the borrower: reading the financial statements, projecting cash flow, sizing and structuring debt, rating the company and estimating recovery. It then carries those models into the numbers a bank manages: PD, LGD, expected loss, IFRS 9 and BNR provisions, stress testing and risk-adjusted pricing. It is for credit analysts, relationship and credit managers, credit risk and portfolio teams, finance and IFRS 9 teams, and model validators.

The six days are organised as four levels of mastery. Each level asks for a different way of thinking, ends with a decision that participants must make and defend, and leaves them with a working model.

Level	Title	Days	Mode of thinking	Cognitive demand
I	Foundation: The Structural Blueprint	Day 1	Clarity and discipline	Understand → Apply
II	Build: Quantitative Intuition	Days 2–3	Technical empowerment	Apply → Analyse
III	Integrate: The Strategic Cockpit	Days 4–5	Strategic application	Analyse → Evaluate
IV	Synthesise: Capstone Mastery	Day 6	Leadership and confident influence	Evaluate → Create

> *Participants leave with six working Excel models, a board pack they have defended under questioning, and a 90-day plan to apply the work in their own institution.*

2. Pedagogical standards

The design draws on the teaching methods used in leading executive education programmes. Each standard below is built into the timetable, not left to the facilitator's discretion.

Standard	What it means	Where it appears
Decision-forcing cases	Each level opens with a case built around a protagonist, a deadline and a decision, in the tradition of the case method practised at Harvard Business School. Participants read it the evening before, prepare in learning teams, and commit to a position before the method is taught.	Six cases on fictional Rwandan borrowers of Inzira Commercial Bank.
Learning by building	Every concept becomes a working model the same day. No session is slides only.	One Excel workbook per day, participant and solution versions.
Learning teams	Fixed cross-functional teams of four or five (risk, finance, validation, audit) for the whole week, as in the learning-team model used in MBA programmes. Team leads rotate daily.	Teams prepare cases, build together and present on Days 3, 4, 5 and 6.
Simulation and role-play	Participants take the roles that decide credit numbers in practice, under time pressure and with conflicting interests.	Credit committee panels (Days 3 and 4), Board Risk Committee (Days 5 and 6).
Retrieval and spaced practice	Each day opens with a short quiz on the previous day and closes with an exit ticket. Questions return later in the week.	08:30 cold open; 16:15 exit ticket; pre- and post-course assessments.
Ascending cognitive demand	Levels move up Bloom's revised taxonomy, from understanding and applying to evaluating and creating.	See the table in section 1.
Real context, synthetic data	Rwandan regulation, RWF and the 2026 macro environment; every borrower and figure is synthetic.	BNR Regulation No. 86/2024; 2026 rate cycle.
Action learning beyond the room	Each participant leaves with a 90-day applied project in their own institution, in the spirit of the action-learning approach associated with IMD. The work stays inside the participant's bank.	30-day virtual clinic; 90-day project review.

The 90-minute session arc

Every session follows the same arc so participants always know where they are:

Step	Minutes	Purpose
Hook	10	A number, a question or a case moment that the session will resolve
Concept	20	The method, taught at the point it is needed
Guided build	35	Participants build the method in the workbook, facilitator alongside
Team challenge	15	Learning teams apply it to the case or a variation
Debrief	10	What changed in the decision, and what would a reviewer challenge?

Talk-time standard: facilitator presentation is no more than 30% of contact time; at least 70% is case discussion, building or simulation.

3. The learner journey

Stage	When	What happens
Before	Seven days before Day 1	Welcome pack, Excel readiness check, Level I case pre-read, learning-team allocation, sponsor goals from each bank
Level I	Day 1	Foundation: the structural blueprint
Level II	Days 2–3	Build: quantitative intuition
Level III	Days 4–5	Integrate: the strategic cockpit
Level IV	Day 6	Synthesise: capstone mastery and certification
After	30 days	Two-hour virtual clinic on applying the models in participants' own institutions
After	90 days	Applied project review; Applied Practitioner endorsement for those who complete it

Level I: Foundation | The Structural Blueprint

Days: Day 1

Mode of thinking: Clarity and discipline

Cognitive demand: Understand → Apply

What you will master: Reading a borrower's financial statements the way a lender must: quality of earnings, the ratios that matter for repayment, and the walk from profit to cash available for debt service. Built in a model that someone else can audit.

Signature case

Profit Up, Cash Down. *Nyabarongo Building Supplies Ltd (fictional) grew sales by 30% and profit by 18%, yet operating cash flow turned negative. Its relationship manager at Inzira Commercial Bank wants the overdraft raised from RWF 1.5 billion to RWF 2.5 billion by Friday. Support the request, cut it, or restructure it?*

Level deliverable: Historical credit model of the case borrower; one-page credit note answering the case decision.

Day 1: Financial statements through a credit lens

Time	Format	Session	Content
09:00–10:30	Case	Cold open and pre-course assessment	Pre-test (30 min). Learning teams take a first position on the case. What a lender needs from IFRS financial statements; the 2026 Rwandan credit environment.
10:45–12:30	Build	Modelling standards and the historical model	Inputs, calculations, outputs and checks; normalising three years of statements into a standard credit template.
13:30–15:00	Build	Ratio and quality-of-earnings analysis	Liquidity, leverage, coverage, efficiency and profitability ratios; working capital days; one-offs, related parties and audit qualifications.
15:15–16:15	Apply	Cash flow analysis and the decision	EBITDA to operating cash flow, free cash flow and cash flow available for debt service; DSCR. Teams decide on the overdraft and write a one-page credit note.

Level II: Build | Quantitative Intuition

Days: Days 2–3

Mode of thinking: Technical empowerment

Cognitive demand: Apply → Analyse

What you will master: Building a linked three-statement projection driven by industry and business risk, and using it to size, structure and protect a loan: debt capacity, repayment profile, covenants and headroom.

Signature cases

The Coffee Season. *Huye Highlands Coffee Ltd (fictional) needs a seasonal facility to buy cherry from June to September, with export proceeds arriving from November. How large should the line be, and what happens if prices or the harvest disappoint?*

How Much Debt Can a Logistics Hub Carry?. *Kigali Logistics Hub Ltd (fictional) asks for RWF 12 billion over seven years to build a warehouse park. The sponsor's base case shows comfortable cover; the bank's case does not. What can the project afford, and on what terms?*

Level deliverable: Linked three-statement model with debt schedule; seasonal facility sizing; term sheet with covenant headroom analysis.

Day 2: Industry risk and the three-statement projection model

Time	Format	Session	Content
09:00–10:30	Case	Industry and business risk	Case discussion. Industry structure, cyclicality and profit drivers; competitive position; management; country risk for Rwandan borrowers.
10:45–12:30	Build	Operating forecast	Revenue drivers, cost structure, operating leverage; working capital days and seasonality; capex and depreciation.
13:30–15:00	Build	Linking the statements	Debt schedule, interest and the circular reference, tax, equity; cash flow statement; balance sheet check.
15:15–16:15	Apply	Seasonal facility sizing	Monthly cash cycle for the case borrower; peak funding need; sensitivity to price and volume. Teams size the line and defend it.

Day 3: Debt capacity, structuring and covenants

Time	Format	Session	Content
09:00–10:30	Case	Debt capacity	Case discussion. Sizing debt on DSCR and leverage; sustainable growth; sponsor case against bank case.
10:45–12:30	Build	Repayment structures and the EIR	Annuity, straight-line, bullet, grace and sculpted repayment; fees and the effective interest rate.
13:30–15:00	Build	Covenants and headroom	Designing financial covenants; headroom over the projection; data tables and scenario switches.
15:15–16:15	Apply	Credit committee mini-panel	Teams present a term sheet for the case: amount, tenor, profile, covenants and security.

Level III: Integrate | The Strategic Cockpit

Days: Days 4–5

Mode of thinking: Strategic application

Cognitive demand: Analyse → Evaluate

What you will master: Turning the borrower model into the numbers a bank manages: a rating and PD, a recovery-based LGD, expected loss, IFRS 9 staging and BNR classification, and the effect of stress on the borrower and on the book.

Signature cases

Two Analysts, Two Ratings. *Two Inzira analysts rated the same Lake Kivu hotel group (fictional) two grades apart, one on the financials and one on judgement. The Credit Committee wants one rating, one PD and one LGD by noon.*

Drought and a Further 200 Basis Points. *The Board Risk Committee asks what a failed agricultural season combined with further rate rises would do to Inzira's key borrowers, its provisions and its capital. Where is the breaking point?*

Level deliverable: Rating, PD, LGD and ECL for the case borrower with a committee decision; stress test of the borrower models rolled up to portfolio provisions and capital.

Day 4: From borrower model to rating, PD, LGD and ECL

Time	Format	Session	Content
09:00–10:30	Case	Rating the borrower	Case discussion. Financial and qualitative rating factors; expert overrides; mapping to a master scale and PD. Statistical scorecards as a challenger.
10:45–12:30	Build	LGD from the recovery waterfall	Debt structure and seniority, collateral haircuts and realisation time for Rwandan security, insolvency outcomes, recovery waterfall.
13:30–15:00	Build	Expected loss and IFRS 9	EAD profile from the repayment schedule; 12-month and lifetime ECL; staging and SICR; BNR Regulation No. 86/2024 classification.
15:15–16:15	Simulation	Credit Committee	Role-play: credit analyst, relationship manager, CRO and CFO agree one rating, PD, LGD and provision for the case borrower.

Day 5: Stress testing the borrower and the book

Time	Format	Session	Content
09:00–10:30	Case	Designing the stress	Case framing; sensitivity, scenario and reverse stress tests; Rwandan drivers: rates, RWF/USD, energy and import prices, harvest, tourism.
10:45–12:30	Build	Stressing the projection	Run the scenarios through the borrower models; DSCR and covenant breach; break-even and reverse stress.
13:30–15:00	Build	From borrowers to the portfolio	Rating migration under stress; stressed PD and LGD; portfolio ECL and the capital adequacy ratio.
15:15–16:15	Simulation	Board Risk Committee briefing	Teams present the breaking point and management actions in ten minutes.

Level IV: Synthesise | Capstone Mastery

Days: Day 6

Mode of thinking: Leadership and confident influence

Cognitive demand: Evaluate → Create

What you will master: Recognising distress early, choosing between restructuring and enforcement on the numbers, pricing risk properly, and defending an integrated credit view before a board panel.

Signature case

The Turnaround Call. *Eighteen months on, Nyabarongo Building Supplies has breached two covenants and is 75 days past due. Management proposes a two-year rescheduling; the recoveries team wants to enforce on the property. Restructure, enforce or sell the loan?*

Level deliverable: Ten-slide board pack with restructuring recommendation and pricing; panel defence; post-course assessment.

Day 6: Distress, turnaround, pricing and capstone

Time	Format	Session	Content
09:00–10:30	Case	Early warning and turnaround	Warning signs in the numbers and in behaviour; 13-week cash flow; restructuring options; going-concern against liquidation value.
10:45–12:30	Build	Risk-adjusted pricing and RAROC	Cost of funds, operating cost, expected loss, capital charge and hurdle rate; pricing the restructured loan.
13:30–15:00	Build	Capstone build	Teams assemble the board pack: borrower model, rating and ECL, stress, restructuring options and recommendation.
15:15–16:15	Simulation	Board panel defence and close	Ten-minute defence and five minutes of questions per team; post-course assessment (45 min); certificates.

4. Daily rhythm

Time	Block	Purpose
08:30 – 09:00	Cold open	Retrieval quiz on the previous day; learning teams report overnight questions
09:00 – 10:30	Session 1	Usually the case discussion
10:30 – 10:45	Break	
10:45 – 12:30	Session 2	Method and guided build
12:30 – 13:30	Lunch	
13:30 – 15:00	Session 3	Build
15:00 – 15:15	Break	
15:15 – 16:15	Session 4	Application, simulation or presentation
16:15 – 16:30	Exit ticket	Five questions and a reflection line; next day's case handed out
Evening	Preparation	Case pre-read, about 45 minutes

39 contact hours over six days (6.5 hours a day), plus about 4 hours of case preparation.

5. Assessment and certification

Component	Description	Weight
Conceptual understanding	Daily exit tickets and the post-course assessment	20%
Applied technical work	Daily workbooks and level deliverables	40%
Simulation performance	Validation panel, ECL Committee and Board Risk Committee	20%
Capstone	Board pack and panel defence	20%

Certificate of completion: at least 70% overall, attendance on at least five of the six days, and the capstone completed. Distinction: 85% or more. Participants below the threshold receive a certificate of attendance. Participants who complete the 90-day applied project receive the Applied Practitioner endorsement.

Certificate wording

> *This is to certify that [Participant Name] has successfully completed the six-day masterclass Financial Modelling for Credit Risk (39 contact hours), progressing through four levels of mastery (Foundation, Build, Integrate and Synthesise), delivered in Kigali, Rwanda, from [start date] to [end date], [with Distinction].*
>
> Shalton Ogola, Lead Facilitator, Ikhaya Credit Analytics · Matengo & Associates · Certificate No. [ICA-FMCR-2026-###]

Programme evaluation: four levels of impact

Impact is measured on the Kirkpatrick model, so each host bank can see what changed beyond the classroom.

Level	Question	Measure
1. Reaction	Was the week relevant and well run?	Daily pulse check and end-of-programme survey
2. Learning	Did knowledge and skill improve?	Pre- and post-course assessment gain; workbook and capstone scores
3. Behaviour	Are participants using it at work?	30-day clinic and 90-day project review
4. Results	Did the bank's practice improve?	Sponsor review at 90 days, for example models documented, checks added, validation findings closed

6. Rwandan regulatory and market anchors

Participants should check each reference against the current BNR text before applying it in their own institution.

Reference	Use in the programme
BNR Regulation No. 86/2024 on credit facilities classification and provisioning for banks	Classification, minimum provisions, collateral deduction, restructuring (Levels III and IV)
BNR Guidelines on IFRS 9 (2023)	Staging, SICR, forward-looking information, governance (Level III)
BNR Regulation No. 80/2023 on related party transactions and credit concentration risk	Single-obligor limits in structuring and the portfolio roll-up (Levels II and III)
IFRS 9 and IFRS 7	ECL measurement and disclosure (Level III)
Basel standardised approach for credit risk, as adopted by BNR	Risk-weighted assets, capital adequacy and the RAROC capital charge (Levels III and IV)

BNR category	Days past due	Provision type	Minimum rate
Normal	Up to date in payments	General	1%
Watch	30 to under 90 days	General	3%
Substandard	90 to under 180 days	Specific	20%
Doubtful	180 to under 360 days	Specific	50%
Loss	360 days or more	Specific	100%

The forward-looking and stress sessions start from the 2026 environment: BNR raised the Central Bank Rate from 6.75% to 8.75% between January and August 2026, headline inflation reached 14.5% in July 2026, and average lending rates were about 16%.

7. Materials pack

Level	Cases	Models and materials
I	Profit Up, Cash Down	Day 1 deck and workbook: historical credit template, ratios, cash flow and DSCR
II	The Coffee Season; How Much Debt Can a Logistics Hub Carry?	Day 2 and 3 decks and workbooks: three-statement projection, seasonal facility, debt sizing, repayment profiles, EIR, covenants
III	Two Analysts, Two Ratings; Drought and a Further 200 Basis Points	Day 4 and 5 decks and workbooks: rating model, PD master scale, LGD waterfall, ECL and BNR classification, borrower and portfolio stress; committee role cards
IV	The Turnaround Call	Day 6 deck and workbook: early-warning dashboard, 13-week cash flow, restructuring options, RAROC pricing; capstone template and panel rubric

Also provided: case data book, pre- and post-course assessments with answer keys, certificate template and logistics checklist. All materials are original to Ikhaya Credit Analytics; all data is synthetic.

Recommended reading

For participants and host banks to acquire. These texts informed the method coverage; no content from them is reproduced in the materials.

- Ganguin, B. and Bilardello, J. Standard & Poor's Fundamentals of Corporate Credit Analysis. McGraw-Hill. (Levels I–IV)
- Glantz, M. and Mun, J. Credit Engineering for Bankers: A Practical Guide for Bank Lending, 2nd edition. Academic Press. (Levels I–IV)
- Sundarka, A. Financial Modelling. Zebralearn. (Levels I–II)
- Zebralearn. The Industry Handbook. (Level II)
- Goel, S. Financial Statements Analysis: Cases from Corporate India. Routledge. (Level I)
- Scalia, A. (ed.) Corporate Credit Analysis and AI: Advancing the Rating System at a Central Bank. Springer. (Level III)
- Davis, H. A. and Sihler, W. W. Financial Turnarounds: Preserving Enterprise Value. Financial Times Prentice Hall. (Level IV)

8. Items to confirm with each host bank

- Dates, venue and daily hours
- Participant list and roles, so learning teams can mix credit analysis, risk, finance and validation (maximum 25 per cohort)
- Laptop policy and Excel version (Microsoft 365 with Solver enabled)
- Whether the optional Python notebooks are in scope
- A senior sponsor to sit on the Day 6 board panel and the 90-day review