Credit Scoring Models and Validation Workshop Training Course

Professional Development Training Course Outline

Category	Risk Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Credit Scoring Models and Validation Workshop Training Course is designed to equip risk and data professionals with the practical expertise to navigate the modern, data-driven landscape of Credit Risk Management. The financial ecosystem is rapidly evolving, driven by Digital Transformation and the imperative of Financial Inclusion, necessitating a move beyond traditional statistical models like Logistic Regression. The core challenge today lies in leveraging Big Data Analytics and Machine Learning (ML) to build and maintain high-performance, Explainable AI (XAI)-compliant credit models. This course will cover the complete Model Lifecycle Management, from feature engineering using Alternative Credit Data to robust Model Validation, ensuring regulatory adherence to frameworks like Basel IV and establishing a resilient Three Lines of Defense approach against Model Risk.

The curriculum centers on applying industry best practices to develop Application and Behavioral Scorecards that are both predictive and non-discriminatory. We will deep-dive into the critical process of Model Governance, including Quantitative Back-testing using metrics like AUC, Gini, and KS Statistic, and a rigorous qualitative assessment of model assumptions and data integrity. Participants will engage in hands-on exercises and real-world Case Studies including the ethical use of Psychometric Data and managing Bias Detection to master the art of tuning Cut-off Strategies and setting dynamic Risk Appetites. Completing this workshop will certify a participant's readiness to champion Responsible AI and lead their institution's efforts in Portfolio Management optimization and sustainable Profitability through superior credit decisioning.

Programme Curriculum

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Course Duration

5 days

Course Objectives

Upon completion of this workshop, participants will be able to:

1. Design a complete Model Lifecycle Management framework for credit scoring.
2. Apply advanced statistical and Machine Learning (ML) techniques, including Gradient Boosting and Neural Networks, for superior default prediction.
3. Implement best practices in Feature Engineering using Alternative Credit Data
4. Develop non-discriminatory Application and Behavioral Scorecards compliant with Fair Lending principles.
5. Conduct comprehensive Quantitative Back-testing using industry-standard metrics
6. Master the principles of Model Governance and the Three Lines of Defense to mitigate Model Risk.
7. Interpret and ensure the transparency of complex models using Explainable AI (XAI) tools
8. Validate credit models against regulatory requirements, specifically focusing on Basel IV implications.
9. Construct and optimize dynamic Cut-off Strategies for loan approval and pricing.
10. Manage and monitor Model Degradation over time using performance tracking and re-calibration techniques.
11. Perform Bias Detection and mitigation in credit datasets to promote Financial Inclusion.
12. Integrate scorecard results into an institutional Risk Appetite and Portfolio Management strategy.
13. Utilize analytical languages (Python/R) for Hands-on Coding and model prototype development.

Target Audience

1. Credit Risk Analysts and Managers
2. Model Validation/Vetting Specialists
3. Data Scientists and Machine Learning Engineers in Finance
4. Risk & Compliance Officers
5. Internal Auditors focused on quantitative models

6. Portfolio Managers and Lending Product Developers
7. Regulatory Reporting Specialists
8. FinTech Strategy and Digital Lending Teams

Course Modules

Module 1: Foundational Concepts and the Regulatory Environment

- Defining Credit Risk
- Traditional Scorecard Development
- Basel IV and IFRS 9.
- Model Risk Management framework.
- Case Study: The 2008 Financial Crisis and CDO Pricing.

Module 2: Data Preparation and Feature Engineering

- Data Requirements.
- Alternative Credit Data.
- Missing Data Treatment.
- Reject Inference Techniques.
- Case Study: Fintech Expansion in Emerging Markets.

Module 3: Statistical and Machine Learning Models

- Logistic Regression.
- Advanced ML Models.
- Model Selection and Comparability.
- Model Calibration
- Case Study: Global Bank's ML Upgrade

Module 4: Model Validation: Quantitative and Qualitative

- Quantitative Back-testing
- Population Stability Index (PSI) and Characteristic Stability Index.
- Qualitative Validation.
- Stress Testing and Scenario Analysis.
- Case Study: Model Degradation in a Recession.

Module 5: Model Governance and Ethical AI

- Model Governance Framework.
- Explainable AI (XAI).
- Bias Detection and Fairness Audits.
- Data Privacy and Ethical Data Use.
- Case Study: Fair Lending Audit.

Module 6: Model Implementation and Strategy

- IT Infrastructure and System Integration
- Setting and Tuning Cut-off Strategies.
- Pricing Strategy Integration.
- Pre- and Post-Implementation Validation.

- Case Study: Optimizing a Credit Card Portfolio.

Module 7: Behavioral Scoring and Account Management

- Behavioral Scorecard Structure
- Model Use Cases.
- LGD/EAD Modeling.
- Portfolio Management Reporting.
- Case Study: Retail Bank Collection Strategy.

Module 8: Future Trends and Advanced Topics

- Decentralized Finance and Blockchain implications for credit scoring.
- The rise of Environmental, Social, Governance data in corporate credit assessment.
- Text Analytics and NLP.
- Model Cloud Deployment and MLOps principles for credit risk models.
- Case Study: Digital Lender's Innovation.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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