



AI Model Risk Validation and Stress Testing Course

29 March – 2 April 2027
Singapore

AI Model Risk Validation and Stress Testing Course

Ref: 319_126813 **Date:** 29 March – 2 April 2027 **Location:** Singapore **Fees:** 5700 Euro

Overview

The AI Model Risk Validation and Stress Testing Course is a five-day advanced course for model risk, validation, audit, and analytics leaders who leave with a Model Risk Stress-Testing Pack. It connects model inventory, validation design, scenario analysis, stress and sensitivity testing, challenger comparisons, explainability evidence, drift monitoring, thresholds, and governance reporting. Participants apply independent review methods across the model lifecycle. Agile Leaders Training Center delivers this course on AI model risk validation and stress testing.

Who Should Attend

- Model risk functions responsible for inventory, tiering, and governance
- Independent validation teams assessing model reliability and limitations
- Risk analytics leaders overseeing quantitative decision tools
- Audit functions reviewing model controls and evidence
- Data science governance teams monitoring deployed models

The course assumes participants review models or risk evidence and leaves out model coding, platform configuration, and introductory statistics.

Departments and Industries

The course supports independent model oversight across regulated and operational environments.

- Risk management and validation in financial services
- Clinical analytics governance in healthcare
- Demand and maintenance analytics in manufacturing
- Fraud and customer analytics in retail
- Internal audit and technology assurance across public services

Learning Objectives

By the end of this course, participants will be able to:

- Build a risk-based model inventory and tiering method
- Evaluate validation scope and independence
- Design stress, sensitivity, and scenario tests
- Analyze drift, limitations, and challenger evidence
- Set monitoring thresholds and escalation rules



- Create a Model Risk Stress-Testing Pack

Course Agenda

Day 1: Model Inventory and Risk Tiering

- Model Definition and Use Classification Checklist
- AI Model Inventory and Ownership Register
- Inherent Risk and Materiality Tiering Matrix
- Lifecycle Control and Decision-Rights Map
- Model Limitation and Dependency Log

Day 2: Independent Validation Design

- Conceptual Soundness Review Template
- Data Quality and Representativeness Test Plan
- Outcome Analysis and Benchmark Comparison
- Challenger Model Evaluation Method
- Independent Validation Scope and Evidence Matrix

Day 3: Stress and Sensitivity Testing

- Scenario Design and Severity Calibration Method
- Parameter Sensitivity and Limiting-Case Analysis
- Data Perturbation and Distribution-Shift Test
- Adverse Condition Model Performance Scorecard
- Stress-Test Finding and Remediation Register

Day 4: Monitoring and Governance Reporting

- Data Drift and Concept Drift Indicator Set
- Performance Threshold and Breach Escalation Matrix
- Explainability Evidence and Decision Trace Review
- Ongoing Monitoring and Revalidation Calendar
- Model Risk Governance Dashboard and Reporting Pack

Day 5: Model Risk Validation Practice

- Suggested Exercise: Model Inventory and Tiering Review
- Suggested Exercise: Validation Evidence Challenge
- Suggested Exercise: Stress Scenario and Sensitivity Design
- Suggested Exercise: Drift Threshold and Escalation Decision
- Capstone Exercise: Model Risk Stress-Testing Pack

Practical Exercises

The course includes suggested activities for testing model-risk decisions against realistic evidence.

- Suggested activity: tier a financial-services model inventory by use and materiality.
- Suggested activity: challenge healthcare model validation evidence and limitations.
- Suggested activity: design manufacturing demand-model stress scenarios.
- Suggested activity: present a Model Risk Stress-Testing Pack to a governance panel.

FAQs

Who suits the AI Model Risk Validation and Stress Testing Course?

Model risk, validation, audit, analytics, and governance professionals suit the course; it assumes experience reviewing models, controls, risk evidence, or quantitative decisions.

How does AI model risk validation differ from a general AI governance course?

AI model risk validation concentrates on independent testing, assumptions, data, performance, limitations, stress behavior, drift, thresholds, and evidence rather than broad AI policy and governance structures.

What does AI model stress testing examine?

AI model stress testing examines performance under adverse scenarios, shifted data, changed assumptions, extreme inputs, operational constraints, and conditions outside normal experience.

How are model drift thresholds set?

Model drift thresholds are set by linking indicators to expected-use conditions, risk appetite, materiality, historical variation, performance tolerance, and defined escalation actions.

What evidence supports independent model validation?

Independent model validation uses documented assumptions, data tests, benchmark and challenger comparisons, outcome analysis, stress results, limitations, monitoring records, findings, and remediation decisions.

Conclusion

Participants leave with a Model Risk Stress-Testing Pack linking inventory, validation, scenarios, monitoring, thresholds, and reporting. The work product improves consistency in model challenge and makes limitations and escalation decisions visible. It gives risk and assurance teams a reusable basis for independent review across the model lifecycle.