MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

MODEL VALIDATION

""Ensuring Accuracy and Integrity in Data Models""

Schedule

Date	Venue	Fees (Face-to-Face)
29 – 30 Apr 2026	Dubai, UAE	USD 1995 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Model validation is a critical process in the development and implementation of financial, statistical, and machine learning models. Ensuring that these models perform accurately and reliably is key to making informed, data-driven decisions. This 2-day course is designed to equip professionals with the tools, techniques, and best practices for validating and verifying models used in data analysis, finance, and business forecasting.

Participants will explore the various stages of model validation, including data quality assessment, performance testing, and sensitivity analysis. They will also learn how to assess model robustness and deal with overfitting, bias, and other potential issues. This course offers a comprehensive approach to model validation that is applicable to both traditional statistical models and machine learning models.

Objectives

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

- Understand the importance of model validation and its role in the model development lifecycle.
- Assess the quality of data used in model building and identify common data-related issues.
- Perform various validation techniques to assess model performance and robustness.
- Detect and address potential problems such as overfitting, bias, and data leakage.
- Use best practices to validate machine learning models and ensure they meet performance standards.

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Why Attend

- Gain hands-on experience with key model validation techniques.
- Learn how to assess the quality and integrity of data used in model development.
- Enhance your ability to detect and correct problems like overfitting, bias, and poor generalization.
- Acquire knowledge of best practices for validating statistical and machine learning models.
- Improve your ability to ensure the accuracy and reliability of models used for decision-making.

Target Audience

This program is designed for:

- Data scientists
- Data analysts
- Financial analysts and model developers
- Professionals working with predictive models, machine learning, or statistical analysis
- Managers involved in data-driven decision-making and model implementation

Individual Benefits

Key competencies that will be developed include:

- Expertise in various techniques for validating and verifying the performance of models.
- Ability to identify and address common pitfalls such as overfitting and data leakage.
- Skills in assessing data quality and ensuring its reliability for model building.
- Understanding of model validation best practices for both statistical and machine learning models.
- Ability to improve model accuracy and robustness, ensuring better decision-making.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Enhanced ability to validate and ensure the accuracy of data models used within the organization.
- Improved reliability of models used for forecasting, decision-making, and risk management.
- Reduced risk of poor model performance and decision-making errors due to inadequate validation.
- Increased confidence in model predictions and insights through thorough validation processes.
- Strengthened compliance and governance around model development and deployment.

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – In-depth discussions on model validation techniques and the importance of model integrity.
- Case Studies – Real-world examples of model validation in different industries and applications.
- Workshops – Hands-on exercises to apply validation techniques to financial and machine learning models.
- Peer Exchange – Group discussions on challenges, best practices, and solutions related to model validation.
- Tools – Introduction to tools and techniques for model performance evaluation, sensitivity analysis, and troubleshooting.

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Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Introduction to Model Validation and Data Quality

- Module 1: Understanding the Role of Model Validation (07:30 – 09:30)
- Overview of the model validation process and its importance in decision-making
- Key principles of model validation: accuracy, robustness, and reliability
- Different types of models and the need for validation in statistical and machine learning contexts
- Module 2: Data Quality and Pre-Modeling Assessment (09:45 – 11:15)
- Assessing the quality of data used in model development
- Identifying common data-related issues: missing data, outliers, and inconsistencies
- Techniques for improving data quality before model building
- Module 3: Performance Metrics and Model Evaluation (11:30 – 01:00)
- Key performance metrics for model evaluation (e.g., accuracy, precision, recall, F1 score)
- Evaluating model performance using holdout sets and cross-validation
- Understanding bias-variance trade-offs in model evaluation

Day 2: Advanced Model Validation Techniques

- Module 1: Identifying and Handling Overfitting and Bias (07:30 – 09:30)
- Understanding the concept of overfitting and its impact on model performance
- Techniques to prevent overfitting: regularization, cross-validation, and early stopping
- Identifying and mitigating bias in models
- Module 2: Sensitivity Analysis and Model Robustness (09:45 – 11:15)
- Performing sensitivity analysis to understand model behavior under different conditions
- Assessing the robustness of models to changes in data or assumptions
- Techniques for improving model stability and resilience
- Module 3: Best Practices in Model Validation (11:30 – 01:00)
- Industry best practices for model validation across different domains
- Model validation for machine learning: cross-validation, A/B testing, and performance monitoring
- Case studies on successful model validation and lessons learned

Certification

Upon completing the training course, participants will receive a Certificate of Completion in Model Validation, validating their ability to apply best practices and techniques for ensuring the accuracy, integrity, and robustness of data models in finance, statistics, and machine learning.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**