Leveraging AI and Analytics in Public Finance Training Course

Professional Development Training Course Outline

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

Course Introduction

In today’s digital economy, artificial intelligence (AI), machine learning, and data analytics are revolutionizing how governments manage fiscal policy, optimize revenue collection, and enhance budget transparency. Public finance institutions face growing demands for efficiency, accountability, and data-driven decision-making. Leveraging AI and advanced analytics provides innovative solutions for revenue forecasting, tax compliance, expenditure monitoring, fraud detection, and real-time financial planning. Leveraging AI and Analytics in Public Finance Training Course equips participants with the skills to integrate AI-powered tools and predictive analytics to strengthen public financial management and ensure sustainable economic growth.

This comprehensive course emphasizes digital transformation in public finance, exploring the intersection of fintech innovations, AI algorithms, big data, and advanced analytics. Participants will gain hands-on experience in applying AI solutions to improve resource mobilization, expenditure control, debt management, and fiscal transparency. Through practical case studies, participants will understand how governments worldwide are successfully integrating AI to optimize financial outcomes. This course ensures that decision-makers, finance professionals, and policy advisors are well-prepared to harness AI-driven insights for improved fiscal governance and socio-economic development.

Programme Curriculum

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Course Objectives

1. Apply AI and predictive analytics in public financial planning.
2. Enhance revenue forecasting and tax compliance with machine learning models.
3. Improve budget allocation and expenditure monitoring through data analytics.
4. Strengthen fiscal transparency and accountability using AI-powered dashboards.
5. Identify and mitigate public finance risks and fraud with anomaly detection.
6. Integrate big data analytics for evidence-based fiscal policymaking.
7. Leverage AI-driven financial modeling for debt sustainability.
8. Apply natural language processing (NLP) to improve public financial reporting.
9. Build digital capacity in finance ministries and institutions.
10. Utilize AI-powered citizen engagement tools for participatory budgeting.
11. Evaluate global best practices in AI-driven fiscal management.
12. Strengthen data governance, ethics, and cybersecurity in public finance.
13. Foster innovation and digital transformation in government financial systems.

Target Audience

1. Government finance officers and treasury officials.
2. Policy makers and economic advisors.
3. Tax administrators and revenue authority professionals.
4. Public expenditure and budget analysts.
5. Auditors and financial controllers.
6. IT and data science professionals in finance ministries.
7. Development partners and donor agency specialists.
8. Researchers and academics in public finance and AI.

Course Duration: 5 days

Course Modules

Module 1: Introduction to AI in Public Finance

- Understanding AI, machine learning, and analytics in finance.
- Role of AI in modern public financial management.
- Benefits and challenges of AI adoption in government.
- Key global trends in AI for public finance.
- Tools and platforms for AI integration.
- **Case Study: Estonia’s use of AI in government financial systems**.

Module 2: Predictive Analytics for Revenue Forecasting

- Machine learning models for tax revenue prediction.
- Enhancing tax compliance with data-driven insights.
- Real-time analysis of revenue collection patterns.
- Forecasting economic impacts with AI algorithms.
- Data visualization for fiscal planning.
- **Case Study: Kenya Revenue Authority's AI-driven tax compliance**

Module 3: AI in Budget Allocation and Expenditure Monitoring

- Data-driven budget formulation strategies.
- AI-powered monitoring of expenditure flows.
- Enhancing efficiency in resource allocation.
- Identifying anomalies in government spending.
- Integrating AI dashboards for fiscal oversight.
- **Case Study: South Korea's AI-enabled budget monitoring system**

Module 4: Fraud Detection and Risk Management

- Using AI to identify fraudulent financial activities.
- Risk profiling in public finance transactions.
- Real-time fraud detection with anomaly detection algorithms.
- Enhancing audit efficiency through AI tools.
- Integrating AI with compliance monitoring systems.
- **Case Study: India's AI-based fraud detection in public finance**

Module 5: Big Data Analytics for Fiscal Policy

- Leveraging big data in public sector decision-making.
- Sources and types of financial big data.
- Data analytics for policy design and impact assessment.
- Advanced econometric modeling with AI.
- Real-time tracking of fiscal indicators.
- **Case Study: Singapore's big data approach to fiscal planning**

Module 6: AI in Debt and Financial Risk Management

- AI-driven debt sustainability analysis.
- Predictive models for sovereign debt risk.
- AI-powered tools for debt restructuring strategies.
- Monitoring external shocks with predictive analytics.
- Enhancing fiscal resilience with AI insights.
- **Case Study: Brazil's AI-enabled debt management strategies**

Module 7: Enhancing Transparency and Citizen Engagement with AI

- AI for fiscal transparency dashboards.
- Citizen participation in budgeting through digital platforms.
- NLP tools for simplified public financial reports.
- Social media analytics for fiscal policy feedback.
- AI chatbots for citizen engagement.
- **Case Study: Barcelona's AI-powered participatory budgeting initiative**

Module 8: Ethics, Data Governance, and Cybersecurity in AI Finance

- Ethical implications of AI in public finance.
- Data governance frameworks for finance ministries.

- Cybersecurity challenges in AI adoption.
- Balancing transparency with data privacy.
- Building institutional capacity for ethical AI use.
- **Case Study: European Union's AI governance framework in public finance**

Training Methodology

- Interactive lectures with real-world AI and finance applications.
- Hands-on workshops using AI tools and analytics software.
- Group discussions and collaborative problem-solving.
- Case study analysis of global public finance practices.
- Simulation exercises for predictive analytics and decision-making.

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

Start Date	End Date	Location	Price
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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