Econometrics of Development and Policy Evaluation Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Econometrics of Development and Policy Evaluation Training Course is designed to empower development professionals, policy analysts, researchers, and decision-makers with advanced skills in econometric modeling, causal inference, and impact evaluation. In today's data-driven world, understanding how to design, estimate, and interpret econometric models is vital for assessing the effectiveness of public policies and development interventions. This hands-on training leverages real-world case studies and development datasets to bridge theory and practice in applied econometrics.

Participants will gain expertise in statistical techniques for program evaluation, including Difference-in-Differences, Instrumental Variables, Regression Discontinuity, and Randomized Controlled Trials. With a focus on evidence-based policymaking, the course integrates tools from Stata, R, and Python to ensure participants are fully equipped to conduct robust evaluations and generate insights that influence policy reform and developmental progress.

Programme Curriculum

Econometrics of Development and Policy Evaluation Training Course

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Course Objectives

1. Understand key concepts of applied econometrics in development contexts.
2. Apply causal inference techniques to real-world development data.
3. Master difference-in-differences and fixed effects models.
4. Evaluate policies using randomized control trials (RCTs).
5. Explore quasi-experimental methods for policy analysis.
6. Conduct regression discontinuity design (RDD) evaluations.
7. Use instrumental variables (IV) to handle endogeneity.
8. Develop policy impact evaluation frameworks.
9. Analyze development economics data using statistical software.
10. Use machine learning methods to support econometric evaluations.
11. Interpret and report empirical research findings.
12. Design and implement monitoring and evaluation (M&E) plans.
13. Enhance decision-making through evidence-based policy analysis.

Target Audiences

1. Policy analysts and government planners
2. Development economists and researchers
3. Monitoring & Evaluation specialists
4. NGO and donor agency staff
5. Social scientists and data analysts
6. Graduate students in economics or public policy
7. International development consultants
8. Think tanks and research institutions

Course Duration: 10 days

Course Modules

Module 1: Introduction to Development Econometrics

- Importance of econometrics in development
- Overview of policy evaluation approaches
- Key terminologies and concepts
- Introduction to causal inference
- Software setup: Stata, R, Python
- **Case Study**: Evaluating education interventions in sub-Saharan Africa

Module 2: Data Sources and Management

- Types of development data (surveys, admin, experimental)
- Data cleaning and wrangling
- Handling missing data
- Data visualization for diagnostics
- Ethics in development data
- **Case Study**: Working with DHS and World Bank datasets

Module 3: Introduction to Causal Inference

- Concept of counterfactual
- Treatment and control groups
- Selection bias
- Estimating Average Treatment Effects (ATE)
- Limitations of observational studies
- **Case Study**: Evaluating microcredit programs in India

Module 4: Difference-in-Differences (DiD)

- DiD estimator fundamentals
- Parallel trends assumption
- Implementation in Stata/R
- Robust standard errors
- Interpreting interaction terms
- **Case Study**: Impact of a health policy reform

Module 5: Instrumental Variables (IV)

- IV estimation and assumptions
- Relevance and exclusion restriction
- Two-Stage Least Squares (2SLS)
- Weak instruments problem
- IV diagnostics and tests
- **Case Study**: Compulsory schooling laws and wages

Module 6: Regression Discontinuity Design (RDD)

- Sharp vs. fuzzy RDD
- Running variable and cutoff
- Bandwidth selection
- Visualizing discontinuities
- Sensitivity analyses
- **Case Study**: Evaluating school grants by test score cutoff

Module 7: Propensity Score Matching (PSM)

- Matching vs. randomization
- Estimating propensity scores
- Balance checks and common support
- Matching algorithms (nearest neighbor, kernel)
- Limitations of PSM
- **Case Study**: Impact of vocational training programs

Module 8: Randomized Controlled Trials (RCTs)

- Experimental design basics
- Random assignment techniques
- Sample size and power
- Implementation challenges
- Ethical considerations in RCTs
- **Case Study**: Kenya deworming experiment

Module 9: Panel Data Analysis

- Fixed vs. random effects
- Panel vs. pooled OLS

- Time-invariant variables
- Within and between estimators
- Clustered standard errors
- **Case Study**: Poverty dynamics using household panel data

Module 10: Time Series in Development

- Stationarity and trends
- ARIMA and VAR models
- Forecasting development indicators
- Seasonality adjustment
- Structural breaks
- **Case Study**: GDP forecasting in fragile economies

Module 11: Machine Learning for Policy Evaluation

- Supervised learning basics
- Feature selection in policy data
- Causal trees and forests
- Comparing ML vs. traditional models
- Overfitting and cross-validation
- **Case Study**: Targeting cash transfers using ML

Module 12: Monitoring and Evaluation Frameworks

- Theory of change
- Logframes and KPIs
- Baseline and endline surveys
- Continuous data monitoring
- Data for adaptive management
- **Case Study**: M&E system for maternal health program

Module 13: Writing Policy Briefs and Reports

- Structuring evaluation reports
- Writing for non-technical audiences
- Data storytelling techniques
- Visualizations for impact
- Peer review and feedback loops
- **Case Study**: Turning econometric results into policy briefs

Module 14: Cost-Benefit and Cost-Effectiveness Analysis

- Understanding CBA vs. CEA
- Monetizing benefits and costs
- Discount rates and NPV
- Sensitivity analysis
- Integrating into evaluation studies
- **Case Study**: Education subsidy program CBA

Module 15: Capstone Project and Peer Review

- Select a real development program
- Apply appropriate econometric tools
- Prepare a report and presentation
- Peer feedback and critique

- Certificate evaluation and feedback
- **Case Study**: Capstone peer-reviewed by development experts

Training Methodology

- Interactive lectures with real-world examples
- Hands-on exercises with statistical software
- Group work and peer-learning activities
- Analysis of real development datasets
- Case study presentations and discussions
- Final capstone project with expert feedback

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com