Social Network Analysis (SNA) in Demography Training Course

Professional Development Training Course Outline

Category	Demography and Population Studies	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Social Network Analysis (SNA) in demography has emerged as a transformative tool for understanding population dynamics, migration patterns, and social interactions within communities. Social Network Analysis (SNA) in Demography Training Course equips participants with advanced analytical skills to map and measure relationships, uncover hidden patterns, and predict demographic changes. Participants will gain expertise in network visualization, data interpretation, and computational techniques that are essential for effective population research and policy planning. The course emphasizes practical applications in real-world demographic challenges, combining quantitative methods with innovative social network modeling to foster evidence-based decision-making.

By leveraging cutting-edge SNA methodologies, participants will learn to analyze complex demographic data, identify influential actors in population networks, and evaluate social and population interventions. The course covers the use of software tools for network mapping, the integration of digital and survey data, and the application of SNA in migration studies, public health, and urban planning. Attendees will emerge with actionable insights to inform demographic strategies, optimize population resource allocation, and enhance organizational capacity for social research and policy analysis.

Programme Curriculum

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Course Objectives

1. Understand fundamental concepts of Social Network Analysis in demographic studies.
2. Apply network metrics to assess population relationships and interactions.
3. Use software tools for network visualization and analysis.
4. Identify key influencers and clusters within demographic networks.
5. Integrate survey, census, and digital trace data for SNA applications.
6. Analyze migration patterns and population mobility using network models.
7. Develop predictive models for population behavior and demographic trends.
8. Evaluate the impact of social interventions through network mapping.
9. Apply SNA in public health, urban planning, and policy decision-making.
10. Understand ethical considerations in collecting and analyzing social network data.
11. Utilize big data and machine learning techniques for demographic network research.
12. Present demographic findings effectively through visual network reports.
13. Conduct case studies to translate theoretical knowledge into practical solutions.

Organizational Benefits

- Improved decision-making through network-informed demographic insights.
- Enhanced capacity for migration and population trend analysis.
- Ability to identify key social actors for targeted interventions.
- Optimization of resource allocation in demographic programs.
- Strengthened evidence-based policy development.
- Improved community engagement and social impact analysis.
- Enhanced predictive modeling of population behaviors.

- Streamlined research workflows using SNA tools.
- Strengthened data-driven reporting and visualization capabilities.
- Competitive advantage in demographic research and social policy planning.

Target Audiences

- Demographers and population researchers
- Public health officials and epidemiologists
- Urban and regional planners
- Policy analysts and government officials
- Social scientists and statisticians
- Migration and refugee studies experts
- NGO program managers
- Academic researchers and graduate students

Course Duration: 5 days

Course Modules

Module 1: Introduction to Social Network Analysis in Demography

- History and evolution of SNA in population studies
- Key concepts: nodes, ties, and network structures
- Introduction to network metrics: centrality, density, and cohesion
- Differences between directed and undirected networks
- Real-world applications in demographic studies
- Case Study: Mapping social networks in urban migration patterns

Module 2: Network Data Collection and Management

- Methods for collecting survey and digital trace data
- Data cleaning and preprocessing techniques
- Ethical considerations in network data collection
- Handling missing or incomplete network data
- Integrating multiple demographic data sources
- Case Study: Using social media data for fertility trend analysis

Module 3: Network Visualization Techniques

- Introduction to network visualization tools
- Creating meaningful network graphs
- Interpreting visual patterns in demographic networks
- Customizing visualizations for demographic insights
- Using software dashboards for dynamic network analysis
- Case Study: Visualizing population mobility in metropolitan areas

Module 4: Centrality and Influence in Population Networks

- Understanding key influencers in networks
- Calculating degree, betweenness, closeness, and eigenvector centrality
- Identifying clusters and community structures
- Implications of influencer analysis for demographic interventions
- Advanced techniques for influence modeling
- Case Study: Detecting central actors in migration networks

Module 5: Network Modeling for Population Dynamics

- Introduction to stochastic and deterministic network models
- Modeling population growth and migration flows
- Simulation techniques for demographic forecasting
- Scenario analysis for policy planning
- Assessing model accuracy and reliability
- Case Study: Predicting migration flows in response to policy changes

Module 6: Social Network Analysis in Public Health Demography

- Linking population networks to health outcomes
- Identifying high-risk groups in health networks
- Mapping disease spread using SNA
- Integrating SNA with epidemiological models
- Evaluating public health interventions through networks
- Case Study: SNA in infectious disease outbreak control

Module 7: Advanced Computational Techniques in SNA

- Introduction to Python and R for network analysis

- Using machine learning for network prediction
- Big data integration for large-scale demographic studies
- Automating network metric calculations
- Evaluating computational model performance
- Case Study: Predictive modeling of urban migration trends

Module 8: Translating SNA Insights into Policy and Practice

- Reporting SNA findings to policymakers
- Decision-making using network-informed evidence
- Stakeholder engagement and participatory approaches
- Developing intervention strategies based on network insights
- Monitoring and evaluating network-based interventions
- Case Study: Policy formulation using migration network insights

Training Methodology

- Interactive lectures with real-world examples
- Hands-on exercises using SNA software tools
- Group discussions and peer-to-peer learning
- Case study analysis and presentation
- Practical assignments with demographic datasets
- Continuous feedback and assessment

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

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