Transdisciplinary Research Approaches for Complex Problems Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In an era defined by global challenges such as climate change, public health crises, and socio-economic inequalities, Transdisciplinary Research (TDR) emerges as a critical methodology for addressing complex, interconnected problems. Trans-disciplinary Research Approaches for Complex Problems Training Course equips scholars, practitioners, and policy-makers with the tools to navigate diverse knowledge systems, foster cross-sectoral collaboration, and co-create sustainable solutions. Participants will explore integrative thinking, systems analysis, stakeholder engagement, and innovative problem-solving frameworks essential for research impact across disciplines.

Drawing on cutting-edge research methodologies, this program emphasizes the importance of merging perspectives from natural sciences, social sciences, technology, and policy sectors. Participants will gain hands-on experience in co-designing research, participatory methodologies, and adaptive systems thinking, all vital for transforming complex data into actionable insights. Through case studies, collaborative projects, and expert facilitation, the course provides a dynamic platform to enhance leadership in research innovation, policy influence, and evidence-based decision-making.

Programme Curriculum

Trans-disciplinary Research Approaches for Complex Problems Training Course

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Course Objectives

1. Develop critical understanding of transdisciplinary research frameworks.
2. Apply systems thinking to complex global challenges.
3. Foster multi-stakeholder collaboration for innovative solutions.
4. Integrate participatory research methodologies across disciplines.
5. Strengthen skills in co-production of knowledge and solutions.
6. Master techniques for integrative problem-solving.
7. Promote sustainability science and policy alignment.
8. Analyze real-world case studies of transdisciplinary applications.
9. Cultivate leadership in research innovation and policy impact.
10. Navigate ethical considerations in cross-sectoral research.
11. Employ adaptive methodologies for dynamic problem contexts.
12. Enhance capacity for data synthesis and knowledge translation.
13. Build competencies in evidence-informed decision-making.

Target Audiences

1. Academic Researchers
2. Policy Makers and Analysts
3. NGO and Development Practitioners
4. Environmental Scientists
5. Public Health Professionals
6. Corporate Sustainability Officers
7. Urban Planners and Architects
8. Graduate and Postgraduate Students

Course Duration: 5 days

Course Modules

Module 1: Foundations of Transdisciplinary Research

- Definition and scope of transdisciplinary research
- Distinction between multi-, inter-, and transdisciplinary approaches
- Core principles and ethics
- Challenges and opportunities in TDR
- Essential competencies for researchers
- **Case Study:** Addressing Urban Health Inequities through TDR

Module 2: Systems Thinking and Complexity Science

- Introduction to systems dynamics and modeling
- Identifying complex systems and feedback loops
- Non-linear thinking for problem-solving
- Leveraging complexity for innovation
- Tools for system mapping and analysis
- **Case Study:** Climate Change Adaptation Strategies

Module 3: Stakeholder Mapping and Engagement

- Identifying and categorizing stakeholders
- Techniques for effective stakeholder engagement
- Participatory research tools and methods
- Building trust across sectors
- Managing conflicts and power dynamics
- **Case Study:** Community-Driven Environmental Conservation

Module 4: Participatory Research Methodologies

- Principles of participatory action research (PAR)
- Co-design and co-creation methodologies
- Collaborative data collection techniques
- Facilitation skills for diverse groups
- Ethical considerations in participatory work
- **Case Study:** Public Health Interventions in Marginalized Communities

Module 5: Knowledge Co-Production and Integration

- Frameworks for integrating diverse knowledge systems
- Bridging scientific and indigenous knowledge
- Translational research strategies
- Evaluating co-produced knowledge
- Policy engagement and advocacy
- **Case Study:** Sustainable Agriculture and Indigenous Knowledge

Module 6: Data Synthesis and Knowledge Translation

- Approaches to data integration across disciplines
- Tools for effective knowledge translation
- Communicating research findings to policy and practice
- Visualizing complex data
- Open science and data-sharing platforms
- **Case Study:** Pandemic Data Analysis for Policy Response

Module 7: Adaptive Methodologies and Resilience Building

- Principles of adaptive research design
- Monitoring, evaluation, and learning (MEL)
- Scenario planning and foresight techniques
- Enhancing resilience through flexibility
- Scaling solutions in dynamic contexts
- **Case Study:** Disaster Risk Reduction in Coastal Areas

Module 8: Leadership for Research Impact and Policy Influence

- Building leadership in transdisciplinary contexts
- Strategies for policy influence and advocacy
- Networking across sectors and disciplines
- Managing research teams for innovation
- Funding and resource mobilization
- **Case Study:** Influencing Climate Policy through TDR

Training Methodology

- Interactive lectures with expert facilitators

- Hands-on workshops and group activities
- Real-world case study analysis
- Peer learning and collaborative projects
- Simulation exercises for complex problem-solving
- Reflective sessions for adaptive learning

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

Start Date	End Date	Location	Price
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:

Register Online Now

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