



Study Design and Research Methods Foundations Course

17 – 21 October 2027
Muscat

Study Design and Research Methods Foundations Course

Ref: 1492_210190 **Date:** 17 – 21 October 2027 **Location:** Muscat **Fees:** 5700 Euro

Overview

Study Design and Research Methods Foundations Course is a one-week foundation course for healthcare, public health, academic, quality, program, and policy personnel, who leave with an Applied Research Protocol Workbook. The course connects questions, literature, qualitative and quantitative approaches, study designs, sampling, measurement, bias, ethics, data collection, analysis planning, appraisal, and reporting. Agile Leaders Training Center presents study design and research methods foundations for credible applied inquiry.

Who Should Attend

- Teams beginning applied health or social research
- Personnel supporting quality, evaluation, and improvement studies
- Functions responsible for program and policy evidence
- Academic and clinical research support teams
- Personnel who review or use research findings

The course assumes basic workplace numeracy and leaves out advanced statistics, laboratory methods, specialist software training, and authority to approve human-participant research.

Departments and Industries

The course supports organizations that plan, conduct, commission, or interpret applied research.

- Healthcare and public health research units
- Universities and professional education organizations
- Quality, evaluation, and program-management teams
- Government, nonprofit, and humanitarian organizations
- Policy, insurance, consulting, and data functions

Learning Objectives

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

- Build answerable research questions and objectives
- Compare qualitative, quantitative, and mixed approaches
- Apply observational and experimental design choices
- Evaluate sampling, measurement, bias, and confounding
- Use ethics, data-management, and analysis-planning controls



- Analyze reporting completeness and evidence limitations

Course Agenda

Day 1: Questions and Protocol Architecture

- Research Problem and Rationale Statement
- Question, Objective, and Hypothesis Alignment Map
- Literature Search and Evidence Gap Record
- Research Protocol Structure Checklist
- Feasibility, Stakeholder, and Governance Scan

Day 2: Approaches and Study Designs

- Qualitative, Quantitative, and Mixed-Methods Decision Guide
- Cross-Sectional and Descriptive Study Map
- Cohort and Case-Control Design Comparison
- Experimental and Quasi-Experimental Design Overview
- Design-to-Question Fit Matrix

Day 3: Sampling, Measurement, and Data Quality

- Target Population and Sampling Frame Definition
- Probability and Nonprobability Sampling Comparison
- Variable and Operational Definition Dictionary
- Validity, Reliability, and Measurement Error Checklist
- Data Collection Instrument and Pilot Plan

Day 4: Ethics, Bias, Analysis, and Reporting

- Participant Risk and Ethics Consideration Log
- Selection, Information, and Observer Bias Review
- Confounding and Alternative Explanation Map
- Data Management and Analysis Plan Outline
- Design-Specific Reporting Guideline Selection

Day 5: Research Methods Practice

- Suggested Exercise: Question and Protocol Alignment
- Suggested Exercise: Study Design Selection
- Suggested Exercise: Sampling and Measurement Review
- Suggested Exercise: Bias and Analysis Planning
- Capstone Exercise: Applied Research Protocol Workbook



Practical Exercises

The course uses suggested activities with fictional healthcare, public health, education, community, and service-evaluation scenarios.

- Suggested activity: convert a broad problem into questions, objectives, and a feasible protocol outline.
- Suggested activity: compare study designs and justify the best fit for an applied question.
- Suggested activity: define a sample, variables, measures, and a pilot data-collection plan.
- Suggested activity: identify ethics issues, bias, confounding, analysis needs, and reporting controls.

FAQs

Who suits study design and research methods foundations training, and what does it assume?

Healthcare, public health, academic, quality, program, policy, and research-support personnel suit the course; it assumes basic workplace numeracy but no advanced methods training.

How does study design and research methods training differ from advanced statistics?

Study design and research methods training focuses on questions, protocols, design choice, sampling, measurement, ethics, bias, analysis planning, appraisal, and reporting rather than advanced calculations or statistical modeling.

How is a study design matched to a research question?

A study design is matched by clarifying the aim, population, exposure or intervention, comparison, outcome, timing, feasibility, ethical constraints, data source, and level of inference needed.

Why are bias and confounding considered during research planning?

Bias and confounding are considered early because participant selection, measurement, data collection, comparison groups, and third variables can distort findings in ways that later analysis may not correct.

Conclusion

Participants leave with an Applied Research Protocol Workbook containing question maps, design comparisons, sampling frames, variable dictionaries, measurement checks, data plans, ethics logs, bias reviews, analysis outlines, and reporting checklists. The workbook turns research ideas into traceable planning decisions. It helps teams explain methodological choices, recognize limitations, and prepare studies for appropriate review.