Curriculum Program: Scientific Research Thought and Method for Acupuncture and TCM Practitioners
Duration: 30 hours (10 sessions × 3 hours)
Focus: Acupuncture-specific research design, planning, ethical considerations, and practical application

Session 1: Introduction to Acupuncture Research
Objectives:
• Understand the role of research in advancing acupuncture practice.
• Identify unique challenges in acupuncture research (e.g., standardizing needle techniques, sham controls).

Content:
• Overview of research paradigms in acupuncture vs. Western biomedical models.
• Key terminology: meridians, Qi, deqi sensation, needle manipulation.

Practical Case:
• Group discussion: Analyze an acupuncture case study for migraine or pain management and identify researchable questions.

Session 2: Formulating Research Questions & Hypotheses in Acupuncture
Objectives:
• Develop focused, testable research questions aligned with acupuncture principles.

Content:
• Adapting the PICO(T) framework for acupuncture (Patient, Intervention – needling techniques, Comparison – sham/control, Outcome, Time).
• Balancing mechanistic and holistic hypotheses in acupuncture studies.

Practical Case:
• Draft a research question for a study on the efficacy of acupuncture for reducing chronic pain.

Session 3: Ethical Considerations in Acupuncture Research
Objectives:
• Address ethical challenges unique to acupuncture trials (e.g., use of sham acupuncture, informed consent about needling risks).

Content:
• Ethical guidelines for protecting traditional acupuncture knowledge and ensuring patient safety.
• Cultural sensitivity and the role of practitioner expertise in trial design.

Practical Case:
• Role-play an ethics committee reviewing a proposal for a sham-controlled acupuncture trial in a vulnerable population.

Session 4: Quantitative vs. Qualitative Approaches in Acupuncture
Objectives:
• Compare methods for studying subjective outcomes (e.g., patient-reported deqi sensation) with objective measures (e.g., biomarker changes).

Content:
• When to use mixed methods: Combining patient narratives with physiological data.

Practical Case:
• Design a mixed-methods study on acupuncture for stress reduction (combining pain score improvements and qualitative patient feedback).

Session 5: Study Designs in Acupuncture
Objectives:
• Evaluate designs: case studies, randomized controlled trials (RCTs), pragmatic trials, and observational studies specific to acupuncture.

Content:
• Strengths and limitations of RCTs for individualized acupuncture treatments.
• Adapting acupuncture protocols into measurable variables (e.g., needle depth, frequency).

Practical Case:
• Plan a pragmatic trial on acupuncture for chronic lower back pain in a community setting.

Session 6: Literature Reviews & Evidence Synthesis for Acupuncture
Objectives:
• Conduct systematic reviews of acupuncture literature, addressing language and publication biases.

Content:
• Navigating databases (PubMed, Cochrane Library, and acupuncture-specific journals) for high-quality evidence.

Practical Case:
• Draft a mini-review on acupuncture for insomnia, highlighting current gaps and methodological challenges.

Session 7: Sampling & Data Collection in Acupuncture
Objectives:
• Design culturally and clinically appropriate data collection tools (e.g., patient-reported outcome measures specific to acupuncture).

Content:
• Addressing recruitment challenges: Small sample sizes, practitioner–patient rapport, and subjective outcome measures.

Practical Case:
• Create a survey to assess patient satisfaction and perceived benefits from acupuncture treatments.

Session 8: Validity, Reliability, and Bias in Acupuncture Research
Objectives:
• Identify potential biases in acupuncture trials (e.g., lack of proper blinding, placebo effects).

Content:
• Strategies to improve validity: Standardizing needling protocols and using sham acupuncture controls.

Practical Case:
• Critique a published acupuncture study for methodological strengths and limitations.

Session 9: Mixed-Methods & Participatory Research in Acupuncture
Objectives:
• Integrate quantitative outcomes with qualitative patient experiences.

Content:
• Community-based participatory research (CBPR) approaches in acupuncture contexts.

Practical Case:
• Co-design a study with acupuncture practitioners to assess the impact of acupuncture on functional recovery after stroke.

Session 10: Proposal Writing & Critical Appraisal in Acupuncture Research
Objectives:
• Synthesize course concepts into a coherent research proposal focused on acupuncture.

Practical Case:
• Final Project: Develop and present an acupuncture research proposal (e.g., evaluating the efficacy of electroacupuncture for post-operative pain management).
• Peer review session to evaluate proposals for feasibility, rigor, and clinical relevance.

Assessment:
• Quizzes (50%), case study assignments (20%), final proposal (30%).

Resources:
• Acupuncture research frameworks (e.g., STRICTA guidelines), sample proposals, access to relevant biomedical and acupuncture literature.

Prerequisites:
• Basic understanding of acupuncture principles and clinical practice.
