

JOINT DISTRICT TRAINING CENTER (JDTC), HISAR



NATIONAL COLLEGE OF AYURVEDA & HOSPITAL

Dhani Garan Road, Barwala, Hisar, Haryana

&

INSTITUTE OF APPLIED STATISTICS, KANPUR

A Statistical Training & Research Institute



Jointly Organising

One-Month Online Certificate Programme on

Ayurveda Tool Development, Validation & Evidence Architecture

Transforming Classical Concepts, Clinical Observations and Traditional Parameters into Measurable Research Instruments, Scales, Scoring Systems, Outcome Measures and Validation Protocols



15th October - 23rd November, 2026



Live Session : 06:00 PM to 07:00 PM



**CENTRAL COUNCIL FOR RESEARCH IN
AYURVEDIC SCIENCES, NEW DELHI**



**MAHARSHI CHARAK AYURVEDA
RESEARCH & DEVELOPMENT SCHEME**

Convener

Patron



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Hisar, Haryana

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One-Month Online Certificate Programme on Ayurveda Tool Development, Validation & Evidence Architecture



ABOUT CERTIFICATE PROGRAMME

Ayurveda possesses a rich repository of classical concepts, clinical observations, and traditional parameters, but many of these remain difficult to measure systematically in modern research. The lack of validated indigenous assessment tools often limits high-quality evidence generation and scientific publications. This certification programme is designed to bridge this critical gap by training participants in the complete process of research tool development, validation, reliability testing, and publication planning specifically for Ayurveda and AYUSH research. The programme goes beyond conventional research methodology and focuses on converting abstract classical concepts into measurable, scorable, validated, and publishable research tools.

OBJECTIVE

- To understand the need for Ayurveda-specific research tools for evidence generation, clinical assessment, and outcome measurement.
- To convert classical concepts and clinical observations into measurable research constructs.
- To develop skills in tool design, domain formation, item generation, and scoring systems.
- To train participants in expert validation, pilot testing, and reliability assessment.
- To learn reliability, validity, and outcome measurement methods.
- To strengthen skills in data management, digital tool deployment, and statistical planning.
- To create awareness about IPR, copyright, and academic ownership of research tools.
- To enable participants to develop their own draft research tool during the programme.

WHO SHOULD ATTEND ?

- Ayurveda Faculty Members, PG & PhD Scholars
- Research Scholars & AYUSH Academicians
- Clinical Practitioners & Research Officers
- Beginners in Biostatistics & Data Analysis

PREREQUISITES

- Understanding of research methodology is desirable
- Fundamental knowledge of Ayurveda concepts and clinical practice.
- Interest in tool development, validation, and evidence-based research.
- Access to a laptop/mobile with internet connectivity for online sessions.



REGISTRATION FEE

2000/- INR
Per Participant
(18% GST Included)

E-Certificates will be provided to all the participants.

Access of Recorded Session and PDF Notes will be provided.

REGISTRATION

For registration please visit
our official website (click link)

www.iasdcs.com

or
SCAN QR CODE →



DURATION OF THE PROGRAMME
15th October - 23rd November, 2026



SCHEDULE & TIMINGS
06:00 PM - 07:00 PM (As per schedule)

Live Session Conducted on
Cisco WebEx



**Ayurveda has concepts.
Research needs measurable tools.
This program bridges that gap.**

Program Coordinator



Dr. Ankit Kumar
Co-ordinator IQAC &
Convenor MoU & Collaboration Cell
National College of Ayurveda &
Hospital, Hisar, Haryana



Er. Amit Tiwari
IT Head & I/C, RD Cell
Institute of Applied Statistics
Kanpur, Uttar Pradesh



Dr. Sahana Vm Vats
Co-ordinator, RIED Cell
National College of Ayurveda &
Hospital, Hisar, Haryana

15th October, 2026 (Thursday) : Inaugural Ceremony

MODULE - 1 : FOUNDATION OF TOOL DEVELOPMENT

Session 01 16 Oct. 2026

Why Ayurveda Needs Its Own Research Tools

- Why research tools are central to evidence generation
- Limitations of borrowing biomedical scales in Ayurveda research
- Why Ayurveda concepts remain under-measured
- Difference between concept, observation, parameter and tool
- Clinical wisdom vs measurable evidence
- Need for Ayurveda-specific outcome measures
- Examples of successful indigenous tools

Session 02 17 Oct. 2026

From Concept to Construct - The First Step of Tool Development

- What is a concept & What is a construct?
- Concept vs construct vs variable
- Independent and dependent variables
- Measurable vs non-measurable constructs
- Construct boundaries, Avoiding vague and overlapping constructs

Session 03 21 Oct. 2026

Construct Archaeology - Classical and Clinical Source Mapping

- Classical textual mapping (Samhita-based extraction)
- Clinical observation mapping & Patient symptom expression mapping
- Faculty clinical experience mapping
- Literature evidence extraction & Concept evidence sheet preparation
- Identifying recurring patterns

Session 04 22 Oct. 2026

Literature Review & Existing Tool Mapping

- Why literature review matters before tool development
- Searching PubMed, Google Scholar and AYUSH databases
- Existing tool identification & Tool comparison matrix
- Gap identification & Duplication avoidance
- Research gap documentation

Session 05 23 Oct. 2026

Clinometric Thinking in Ayurveda

- What is clinimetrics?
- Psychometrics vs clinimetrics
- Symptom scoring vs disease scoring
- Diagnostic tools vs severity tools
- Screening tools vs outcome tools
- Clinical utility in tool design & Ayurveda application models

Session 06 24 Oct. 2026

Operational Definition Writing

- What is operational definition & Why definitions fail in Ayurveda research ?
- Writing measurable definitions
- Inclusion boundaries & Exclusion boundaries
- Unit of measurement
- Clinical applicability

Session 07 26 Oct. 2026

Domain Identification & Construct Breakdown

- What is a domain?
- Symptom domains & Sign domains
- Behavioural domains & Functional domains
- Clinical examination domains
- Domain duplication avoidance

MODULE - 2 : TOOL CONSTRUCTION

Session 08 > Construct Mapping Grid - Blueprint of Tool Development

27 Oct. 2026

- Concept-domain-item mapping
- Domain prioritization & Domain weightage
- Clinical relevance scoring
- Textual linkage
- Clinical applicability matrix

Session 09 > Item Generation

28 Oct. 2026

- What is an item?
- Item pool creation
- Patient-reported items
- Clinician-rated items & Observational items
- Grading-based items & Mixed item design

Session 10 > Language Engineering of Research Items

30 Oct. 2026

- Item clarity, Item simplicity & Item neutrality
- Avoiding emotional wording
- Avoiding leading questions
- Translating Sanskrit/classical terms into patient-friendly language
- Hindi and English bilingual tools

Session 11 > Response Format Design

31 Oct. 2026

- Binary response systems
- Likert scales, Frequency scales, Severity scales, Duration scales
- Visual analogue scales
- Clinician grading scales

Session 12 > Scoring System Development

02 Nov. 2026

- Item scoring, Domain scoring
- Total score development
- Reverse scoring, Weighted scoring
- Severity grading
- Cut-off planning

MODULE - 3 : EXPERT VALIDATION

Session 13 > Content Validity & Expert Validation Process

03 Nov. 2026

- What is content validity?
- Selecting experts, Minimum expert requirement
- Designing expert validation forms
- Relevance scoring, Clarity scoring & Necessity scoring

Session 14 > CVR (Content Validity Ratio) and CVI (Content Validity Index)

04 Nov. 2026

- Content Validity Ratio (CVR)
- Lawshe's method
- Item-level CVI & Scale-level CVI
- Expert agreement percentage & Decision rules for item retention
- Modification and deletion

Session 15 > Delphi Method & Consensus Building

05 Nov. 2026

- What is Delphi method?
- Round-wise consensus building
- Anonymous expert review, Consensus threshold
- Iterative refinement, Finalizing expert-approved tool

MODULE - 4 : PRETESTING & PILOT TESTING

Session 16 Dataset Architecture & Data Collection Planning

11 Nov. 2026

- Variable planning
- Demographic variables, Clinical variables, Item variables
- Coding systems
- Excel and Google Forms structure
- Missing data planning

Session 17 Cognitive Interviewing / Pretesting

12 Nov. 2026

- What is cognitive interviewing?
- Comprehension testing
- Retrieval process & Response process
- Detecting ambiguity
- Identifying misunderstood items
- Revising items before pilot

Session 18 Pilot Testing & Feasibility Testing

13 Nov. 2026

- Purpose of pilot testing
- Pilot sample size
- Feasibility assessment & Time burden assessment
- Missing responses, Difficult items
- Field notes documentation

MODULE - 5 : RELIABILITY SCIENCE

Session 19 Sample Size Planning in Tool Validation

14 Nov. 2026

- Sample size for pilot study
- Sample size for reliability testing
- Sample size for factor analysis
- Sample size for validation studies
- Rule-of-thumb methods
- Item-to-participant ratio

Session 20 Reliability Framework

16 Nov. 2026

- What is reliability?
- Internal consistency
- Test-retest reliability
- Inter-rater reliability & Intra-rater reliability
- Stability over time
- Reproducibility

Session 21 Internal Consistency Analysis

17 Nov. 2026

- Cronbach's alpha, McDonald's omega
- Item-total correlation
- Alpha if item deleted
- Redundant item detection
- Interpreting reliability values

Session 22 Inter-Rater Reliability & Agreement Statistics

18 Nov. 2026

- Kappa statistics, Weighted kappa
- Intraclass correlation coefficient (ICC)
- Percentage agreement
- Rater training
- SOP for scoring

MODULE - 6 : VALIDITY SCIENCE

Session 23 ▶ Validity Framework & Construct Validation

19 Nov. 2026

- Face validity
- Content validity & Construct validity
- Criterion validity
- Convergent validity
- Discriminant validity
- Known-group validity

Session 24 ▶ Factor Analysis, Criterion Validity, ROC & Responsiveness

20 Nov. 2026

- Exploratory factor analysis (EFA)
- Confirmatory factor analysis (CFA)
- Factor loading & Cross-loading
- Criterion correlation
- ROC curve basics
- Sensitivity and specificity
- Responsiveness to treatment
- Minimal clinically important difference

MODULE - 7 : RESEARCH TRANSLATION

Session 25 ▶ Protocol Writing, Manuscript Writing, IPR & Final Tool Presentation

21 Nov. 2026

- Writing research protocol
- Background writing
- Aim and objectives
- Methodology writing
- Statistical analysis plan
- Manuscript structure
- Reporting tool development studies
- Journal selection
- Avoiding predatory journals
- Copyright of tools
- Tool ownership
- Institutional vs personal rights

23rd November, 2026 (Monday) : Assessment Test

FINAL OUTCOME

• By the end of the programme, participants will be able to develop:

- ✓ One complete draft tool
- ✓ Validation framework
- ✓ Pilot testing plan
- ✓ Reliability plan
- ✓ Validity plan
- ✓ Manuscript outline
- ✓ IPR roadmap
- ✓ Publication-ready structure

• Final participant presentation (Group/Individual) Optional - 27th & 28th November

• Expert feedback

ABOUT ORGANIZERS JOINT DISTRICT TRAINING CENTER (JDTCC), HISAR



NATIONAL COLLEGE OF AYURVEDA & HOSPITAL, HISAR, HARYANA

National College of Ayurveda & Hospital, affiliated with Shri Krishna AYUSH University, was established in 2013 with the vision of promoting Ayurveda, the traditional Indian system of medicine, in Haryana. The institution is committed to serving humanity by combining spiritual values with quality education and healthcare, while providing strong academic and clinical training to develop skilled Ayurvedic professionals.

The college and its hospital focus on improving individual and community health through safe, effective, and evidence-based care. With emphasis on education, research, and innovation, the institution strives to advance Ayurveda and contribute to the betterment of society.



INSTITUTE OF APPLIED STATISTICS, KANPUR, UTTAR PRADESH

The Institute of Applied Statistics is a premier institution dedicated to building human resource capacity in Statistics through specialized training and multidisciplinary research. It conducts training programmes across the country and regularly organizes International, National, State, and Institutional level workshops for researchers and academicians.

The Institute's mission is to develop skilled professionals to meet emerging research challenges. It offers short- and medium-term programmes, develops need-based training modules in collaboration with experts, and provides consultation to government and private sectors in training design, survey implementation, and research activities.

CERTIFICATE PROGRAMME HIGHLIGHTS

- ✓ Live scientific sessions on Ayurveda Tool Development, Validation & Evidence Architecture as per schedule.
- ✓ Query discussions at the end of each session during the programme to address doubts.
- ✓ Online Assessment Tests at the end of the programme for E-Certification.
- ✓ Online Quiz at the end of each session & Periodic Task for revision and practice purpose.
- ✓ Study material in the form of PDFs will be shared with all registered participants of the programme.
- ✓ All registered participants will receive an e-certificate after completion of the programme on their registered email ID.
- ✓ Access to all recorded sessions of the programme for revision purposes.
- ✓ Opportunity to network with researchers and professionals.

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