

## **Course Modules:**

### **Research Philosophies and paradigms**

- Six systems of Indian Philosophy- Introduction
- Research paradigms in Indian philosophical system
- Eastern & western paradigms-critical overview

### **Research Ethics)**

- Ethics from Indian knowledge system perspective (IKS)
- Evolution of human research ethics

### **Literature review and referencing**

- Review of classical scriptures of Indian philosophy
- Relevant modern science literature review

### **Sampling methods**

- Non-probability sampling methods
- Probability sampling methods

### **Research designs**

- Experimental designs
- Non-experimental designs

### **Clinical trial and control techniques**

- Confounders and control techniques
- Controlled clinical trials (CCT)

### **Logic of hypothesis testing**

- Null hypothesis significance testing (NHST)
- Steps of hypothesis testing

### **Data collection methods**

- Measurement errors and bias
- First person subjective methods
- Third person objective methods

### **Procedure for conducting research**

- Ethics committee approval
- Clinical trial registration
- Informed consent/assent

Pilot study- need and importance

Protocol- apriori design vs interim modifications

Managing adverse effects

### **Fundamentals of qualitative research**

Major qualitative research approaches

Validity & reliability in qualitative research

### **Technical software for Research scholars**

Itranslator- for Sanskrit transliteration

R & Jamovi-for statistical analysis

Zotero-for referencing

### **Statistics overview-1**

Descriptive statistics

Fundamentals of inferential statistics

### **Statistics overview-2**

Choosing the right statistical tests

### **Scientific writing**

Classical scriptures perspective

Modern science perspective