

# **WHSP 303- QUANTITATIVE RESEARCH METHODS**

## **Course Learning Outcomes:**

The aim of this course is to introduce

- i. A number of issues involved in the conduct of empirical public health research.
- ii. Essential concepts in public health research, sampling, surveys and designs of research
- iii. Hands on training data analysis techniques by using statistical softwares.

## **Content-Theory:**

### **1. Introduction, objectives, types of research:**

- Basic and applied,
- Quantitative and qualitative,
- Clinical and diagnostic;

### **2. Research designs:**

- Observational studies,
- Cross-sectional,
- Case-control,
- Cohort (prospective, retrospective, time-series);

### **3. Types of sampling:**

- Probability and non-probability;
- Sampling frame and sampling Size

### **4. Survey Research**

- Planning
- Questionnaire Development
- Fieldwork
- Coordination and Monitoring
- Editing, Coding and Data Entry

### **5. Scales and Indexes**

- Indexes and Scaling
- Scaling: Issues and types

### **6. Write – up**

- Key elements
- Formatting
- References and Appendices

### **7. Statistical analysis**

- Introduction to Stastical Softwares (with data analysis training and exercise)

### **8. Experimental data analysis:**

- Incidence/ prevalence rate

### **Recommended Readings:**

1. Awan, J.A. (2015). Scientific Presentations. Unitech Communications, Faisalabad, Pakistan.
2. Lovegrove, J.A., Hodson, L., Sharma, S. & Lanham-New, S.A. (2015). Nutrition Research Methodologies. Wiley-Blackwell, John Wiley & Sons Ltd., Chichester, West Sussex, UK.
3. Lowe, M. (2007). Beginning Research: A Guide for Foundation Degree Students, (1st ed.) Routedge Publications, New York, USA.
4. Starks, T.P. (2006). Trends in Nutrition Research. Nova Science Publishers, Inc., New York, USA.
5. Walliman, N. (2005). Your Research Project, A Step by Step Guide for The First-time Researcher, (2nd ed.) Sage Publications, Thousand Oaks, CA, USA.