

## CODE BSPH-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 SPSS.

### 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 SPSS (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.) Routledge 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.