**RESEARCH METHODS**

Credit Hours: 3 (2+1)

Prerequisites: None

**Specific Objectives**

To develop skills for designing and conducting research

**Learning Outcomes**

After studying this course, the learners will be able to:

1. Understand the process, basic elements and methodology of research
2. Understand the knowledge of research methods and its application in the field of planning
3. Demonstrate ability to design research proposal
4. Demonstrate ability to apply appropriate research techniques and methods
5. Demonstrate ability to analyze and interpret the data
6. Demonstrate ability to synthesize and compile the research findings in report format

**Content List**

* Introduction To Research And Its Significance In Planning
* Characteristics of Scientific Research.
* Ethical Considerations In Research
* Types Of Research
* The Research Process: Abstract, Problem Formulation, Research Objectives, Literature Review, Research Design, Data Collection and Analysis, Report Writing.
* Theory and Research, Theoretical Framework and Testing Of Hypothesis.
* Research Design And Its Components: Measurements: Definition, Nature And Levels Of Measurements, Research Methodology: Collection And Analysis/Interpretation Of Data, Generalization, Types Of Observation, Laboratory And Field Experimentation, Personal Interviews: Questionnaire Construction: Content Of Questions, Types Of Questions, Question Format, Sequence Of Questions, Index Construction And Scaling Methods
* Sampling Techniques And Sample Design, Evaluation
* Organization and Format of Planning Report: Reference, Quotations, Bibliography, Paging, etc.
* Writing Up Of The Thesis And Dissemination Of Research Work
* Compilation of Research Proposals and Presentation

**Practical**

* Preparation of a research proposal
* Review of a Thesis
* Report Writing
* Presentation

**Proposed Teaching Methodology**

* Lecturing
* Written Assignments
* Guest Speaker
* Case Studies

**Proposed Assessment (theory, 100%)**

 **Mid Term (40%)**

* Written long/short questions, quizzes etc.

**Final Term (60%)**

* Written long/short questions, quizzes etc.

**Proposed Assessment (practical, 100%)**

* Presentations, assignments, report writing, viva voce, case studies, field visits etc.

**Recommended Books**

1. Yin, Robert K (2016), *Qualitative Research*, Guilford press.
2. Wang, X., Hofe, R. (2007), *Research Methods in Urban and Regional Planning*, Springer.
3. Patten, M. L. (2005), *Understanding Research Methods: An Overview of the Essentials*, Pyrczak Pub.
4. Berg, B. L. (2003), *Qualitative Research Methods for the Social Sciences*, Allyn & Bacon.
5. Nardi, P. M. (2002), *Doing Survey Research: A Guide to Quantitative Research Methods*, Allyn & Bacon.
6. Neuman, W. C. (2002), *Social Research Methods: Qualitative and Quantitative Approaches*, Allyn and Bacon.
7. Karl. E. Weber, Indra. P. Tiwari, *An Introduction: Research and Survey Format Design, Division of Human Settlements Development*, Bangkok, Asian Institute of Technology, (Latest Edition).
8. M. Iqbal Chaudary, *Social Theory, Research Problems*, Lahore, Aziz Book Depot,(Latest Edition).