

SEMESTER-III

GEOG. 663:

RESEARCH TECHNIQUES

3(3-0)

Course Objectives

This course aims to educate students on the process of research, defining the research topic, the research questions, conducting a literature review, building a conceptual model as well as designing the research methodology: collecting and representing data. Moreover, the course equips the students to develop research synopses/proposals.

Learning Outcomes

On completion of this course, the students will be able to:

- Identify the main types of research, formulate the research questions and objectives, research hypotheses, conceptual model, and main variables and describe the proper research methodology for research;
- Design the research tools for data collection, analysis the data, and write up of thesis.

Course Outline

1. Geographical Research

- Geographical research: scope and applications

2. The Research Process

- Conceptualization: topic selection, problem statement, research question and research objectives, research hypothesis, conceptual framework and measurement tools
- Operationalization: data collection, analysis and interpretation, conclusions and recommendations
- Review literature: Literature assessment, analysis, selection and synthesis and use of review literature matrix

3. Research and Research Designs

- Research Types: Qualitative, quantitative and mix-methods
- Definition and explanation of the type of research designs: Case Study Design, Cross-Sectional Design, Descriptive Design and Experimental Design

4. Data Types, Measurement and Collection

- Qualitative and Quantitative Data
- Primary and Secondary Data
- Types of Variables and level of measurement
- Units of analysis
- Coordination schema
- Data collection tools: questionnaire and interviews
- Validity and reliability
- Hypothesis testing

5. Sampling Design

- Sampling types, methods and procedures
- Sample size

6. Data Analysis

- Qualitative data analysis
- Quantitative data analysis
- Introduction to SPSS and MS Excel for analysis

7. Ethics in Research

- Ethical issues in data collection
- Plagiarism: definition, types, and ways to avoid plagiarism

8. Thesis Writing

- Parts of thesis and its preparation
- Preparing research articles for journal and conferences and publication

Recommended Books

1. Earl Babbie, (2010) “The Practice of Social Research”, 12th Ed., Belmont, CA: Thomson-Wadsworth.
2. World Medical Association. (2008) “World Medical Association Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects”, www.wma.net/e/poliy/b3.htm.
3. I. Brace: (2004) “Questionnaire Design”, Kogan Page.
4. J. W. Creswell (2002) “Research Design: Qualitative, Quantitative and Mixed Methods Approaches”, Sage Publications,
5. P. S. Levy and S. Lemeshow (1999) “Sampling of Populations: Methods and Applications”, 3rd edition Wiley-Inter-science.
6. Weber and I. P. Tiwari (1992) “Research and Survey Format Design: An Introduction”, AIT, Thailand.