

**Department of Agricultural Extension and Rural Development**  
Patuakhali Science and Technology University  
Dumki, Patuakhali

**Course Profile**

**Course Code:** CSA 5107

**Course Title:** Research Methodology

**Credit Hour:** 2

**Student Level:** Level- 5, Semester – 1

**Rationale:** Students of MS in CSA have to accomplish a mandatory research followed by thesis writing. This course will help them to accomplish that task efficiently. In addition, the graduates will work in different development organizations where they need to develop research proposals, accomplish field works and present results. This course will help prepare them in this regard.

**Objectives:** After successful completion of this course students are expected to be able to:

- i. Develop the situation and research problem and accomplish literature review of their research
- ii. Design and test research hypothesis, and perform meta-analysis
- iii. Understand the principles of quantitative and qualitative research
- iv. Develop research proposal, perform field work and present results

<b>Learning Outcomes</b>	<b>Course Content</b>	<b>Teaching-Learning Strategy</b>	<b>Assessment Strategy</b>
The students will be able to select suitable situational problem and research problem and efficiently perform literature search	<b>Defining the situational problem and research problem and applying and reviewing literature existing literature to their problem statement</b>	Lecture Reading assignment Group discussion	Short questions Assignments Presentation
The students acquire skill in designing research, test hypothesis and perform meta-analysis	<b>Compare and contrast descriptive and inferential research; Identifying and labeling variables; Sampling; Reliability and validity: Research design; Constructing hypothesis; Testing hypothesis: t-test, chi-square, correlation, regression ANOVA (one-way and two-way); Meta-analysis</b>	Lecture Reading assignment Workshop	Quiz Short questions Problem solving
Understand and perform qualitative and quantitative research	<b>Compare and construct qualitative and quantitative research; Constructivism and Epistemology; Qualitative research methods: observational method, interviews, focus group discussion, participatory methods; validity and triangulation in qualitative research, sampling and qualitative data analysis</b>	Lecture Group discussion Workshop	Written Quiz Structure draft proposal
The students can develop research proposal, write thesis and perform proper citation of research documents and sources	<b>Research Proposal development; research report and thesis writing; Research Ethics; Reference writing- APA, MLA</b>	Lecture Reading Assignment Workshop Peer feedback	Structure draft proposal Presentation

Glesne, C. (2016). *Becoming Qualitative Researchers: An Introduction*, 5th Edition

Recommended Books and Periodicals. Pearson

Neuman, W.L. (2014). *Social Research Methods: Qualitative and Quantitative Approaches*, 7<sup>th</sup> Edition, Pearson

Creswell, J.W. and Creswell, J.D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* 5th Edition. SAGE Publications

Machi, L. A., & McEvoy, B. T. (2016). *The literature review: Six steps to success* (3rd ed.). London: Corwin Press.

SHADISH, W.S. , Shadish, William R. , Cook, Thomas D. and Campbell, Donald Thomas. (2002). *Experimental and Quasi-experimental Designs for Generalized Causal Inference*. Houghton Mifflin Company

Leeuwis, C. (2013). *Communication for rural innovation: rethinking agricultural extension*. John Wiley & Sons.

May, T. (2011). *Social research*. McGraw-Hill Education (UK).

Babel Vinck and Karssenbergh (2019) - Decision-making in model construction: Unveiling habits

Lahtinen Guillaume and Hamalainen (2017) - Why pay attention to paths in practise of environmental modelling?

Melsen et al. (2019) - Subjective modeling decisions can significantly impact the simulation of flood and drought events