

## **MCM-345 Sampling Design and Measurement Techniques (3 Credit Hours)**

**Pre-Requisites: None**

### **Course Description**

1. This course is designed to introduce students with sampling methods and measurement techniques. The course will not only provide students with the theoretical understanding but also train them in using soft-wares for data analysis.

### **Learning Outcomes**

2. After completion of this course the students shall be able to:

- a. Understand the sampling methods
- b. Operationalize and measure variables in their research
- c. Utilizing Computer soft-wares for data analysis

### **Course Content**

- a. Methods and Theory of Sample Design
- b. Sampling Errors, Non-Response Errors
- c. Measurement Techniques
- d. Reliability and validity issues
- e. Statistical Data Analysis: Content Analysis, Survey Method
- f. Use of SPSS, Stata or relevant software
- g. Nvivo (Optional)

### **References**

1. Biemer, P.P., & Lyberg, L.E. (2003). *Introduction to Survey Quality*, New York: Wiley,
2. Chaudhuri, A., & Stenger, H. (2010). *Survey sampling: theory and methods*. CRC Press.
3. Conrad, F.G., Broom, J.S., Benki, J.R., Kreuter, F., Groves, R.M., Vannette, D., & McClain, C. (2013). *Interviewer speech and the success of survey invitations*. *Journal of the Royal Statistical Society, Series A*, 176, 191-210.
4. De Leeuw, E.D. (2001). *Reducing missing data in surveys: An overview of methods*. *Quality & Quantity*, 35, 147-160.
5. De Leeuw, E., & de Heer, W. (2002). *Trends in household survey nonresponse: A longitudinal and international perspective*. In R.M. Groves et al. (eds.) *Survey Nonresponse*, New York: Wiley, 41-Groves, R.M. (2006). *Nonresponse rates and nonresponse error in household surveys*. *Public Opinion Quarterly*, 70, 646-675.

6. DeLeeuw, E. D. (2005). To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*, 21, 233-255.
7. Gaziano, C. (2005). Comparative analysis of within-household respondent selection techniques. *Public Opinion Quarterly*, 69, 124-157.
8. Groves, R.M. et al. (2009). Methods of data collection. Chapter 5 in *Survey Methodology*, 2nd ed. New York: Wiley, 150-181.
9. Kreuter, F., Presser, S., & Tourangeau, R. (2008). Social desirability bias in CATI, IVR, and web surveys: The effects of mode and question sensitivity. *Public Opinion Quarterly*, 72, 847-865.
10. Murthy, M. N. (1967). *Sampling theory and methods*. Sampling theory and methods.
11. Sampath, S. (2005). *Sampling Theory and Methods*. Alpha Science International