

COURSE SYLLABUS FORM

**American University of Beirut
Faculty of Arts and Sciences
Department of Mathematics**

**Course Number and Title: Stat 236
Sampling Techniques**

1. Course Learning Outcomes

People are accustomed to seeing the results of surveys reported in the daily press, incorporated in advertising claims, and mentioned in numerous occasions by political analysts, social critics, and economic forecasters. Much less frequent, however, is any discussion on the reliability of these surveys and what is involved in carrying them out.

This course is intended to preview methods and techniques for surveys from finite populations. It is concerned with constructing the suitable statistical methodology for collection and analyzing data.

2. Resources Available to Students

**Text Book: Sampling Techniques, Third edition
Author: William G. Cochran
Publisher: Wiley**

3. Grading Criteria

One Mid-term (35%), Project (15%) , and final exam (50%)

4. Schedule

**- Introduction to sampling and Simple Random Sampling (chapters 1 to 4)
(approximately 5 weeks)**

Mid-term

**- Complex surveys: Stratified random sampling, Ratio Estimators, Regression Estimators, Systematic Sampling, and Cluster sampling. (chapters 6 to 10).
(approximately 6 weeks).**

5. Course Policy (if any)