

COURSE SYLLABUS FORM

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

**Course Number and Title: Stat 234
Introduction to Statistical Inference**

1. Course Learning Outcomes

This is a basic course in the classical Statistical Inference Theory. It intends to introduce the students to estimation and testing techniques as well as their sampling distributions. Several applications to the above concepts will be given and discussed. Students who are interested in this course should have an adequate knowledge of multivariate probability and a good background in multivariate calculus.

2. Resources Available to Students

Text Book: Introduction to Mathematical Statistics, Fifth Edition

Authors: Hogg, R. and Craig, A.

Publisher: Prentice Hall

3. Grading Criteria

The course grade will be based on two quizzes (50%) and final exam (50%)

4. Schedule

- Limiting distributions and estimation (chapters 5 and 6). (Four weeks). Quiz I**
- Sufficient Statistics and more about Estimation (Chapters 7 and 8). (Four weeks). Quiz II.**
- Theory of Statistical Tests (Chapters 9 and 10) (for the remaining time of the semester). Final Exam.**

5. Course Policy (if any)