

STAT 621: Statistical Inference (I)

Instructor: Prof. Khalaf S. Sultan

Office: 2B20 Building #4, Phone (office): 4676263

Time: Sundays: 8– 11am

E-mail: ksultan@ksu.edu.sa

Recommended Books:

1. Lehmann, E. L. and Casella, G. (1998), *Theory of Point Estimation*, second edition, Springer.
2. Casella, G. and Berger, R. L. (2002). *Statistical Inference*, second edition, Duxbury, New York.
3. Kendall, M. G. and Stuart, A. (1979). *The Advanced Theory of Statistics*, fourth edition, Volume 2, Charles Griffin, London.
4. Silvey, S.D. (1975). *Statistical Inference*, Chapman and Hall, London.

Reference Books:

1. Johnson, N.L., Kotz, S. and Balakrishnan, N. (1994). *Continuous Univariate Distributions, Vol. 1, Second edition*, John Wiley, New York.
2. Johnson, N.L., Kotz, S. and Balakrishnan, N. (1995). *Continuous Univariate Distributions, Vol. 2, Second edition*, John Wiley, New York.
3. Kendall M. Stuart A. and Ord J.K. *Kendall's Advanced Theory of Statistics, Volume 1: Distribution Theory*
4. Kendall M. Stuart A. and Ord J.K. *Kendall's Advanced Theory of Statistics, Volume 2A -Classical Inference and the Linear Model*
5. Kendall M. Stuart A. and Ord J.K. *Kendall's Advanced Theory of Statistics, Volume 2B: Bayesian Inference*

Course Scope Contents:

Statistics 621 is part of a two-course sequence in statistical inference for graduate students in Statistics 621 (622). Its intent is to supply key tools and key results of statistical statistics, and to convey the spirit of theoretical research work, as published in leading statistical journals. The following are the main points will be covered throughout the course: Sufficiency – Completeness – Likelihood - Mutiparameter estimation - Linear estimation - Maximum likelihood estimation - Bayesian estimation - Large sample properties and procedures – Bootstrapping - Empirical distribution function.

Assignments Tests:

Assignments and projects	Will be given during classes		20 marks
Presentation of some related papers			10 marks
Midterm test			30 marks
Final Exam			40 marks

Attendance:

Student missing more than 25% of the total class hours won't be allowed to write the final exam.