

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
Department of Mathematics and Statistics
Dhahran, Saudi Arabia

STAT302: STATISTICAL INFERENCE
TERM 131: (1 SEPTEMBER 2013 TO 9 JANUARY, 2014)

Course Objectives:

To present a mathematical foundation in statistical theory, its relevance and importance in sampling with a view to solve real world problems.

Textbook: Wackerly, Dennis D.; Mendenhall, William and Scheaffer, Richard L. (2008) *Mathematical Statistics With Applications, Thomson Learning, Inc., 8th ed.*

Instructor: Anwar Joarder

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Office Hours: UTR: 1100 – 1159 am, and 0200 to 0300 pm or by appointment.

Assessment: Assessment for this course will be based on homework, two major exams and a comprehensive final exam, as in the following:

Activity	Weight
<i>Home Work</i>	16%
Exam 1 (Chapters 2.12, 6.7, 7.1, 7.2)	16%
Exam 2 (Chapters 8, 9)	16%
Exam 3 (Chapters 10, 14, 16)	16%
Final Exam (Comprehensive), 0800 am to 1030 am, Saturday, 28 December, 2013	36%

Syllabus

Random Sampling (Ch 2.12)

Order Statistics (Ch 6.7)

Sampling Distributions (Ch 7.1)

Normal Sampling Distributions for Inference (Ch 7.2)

Point and Interval Estimation of Parametric Models (Ch 8)

Properties of Statistical Estimation (Ch 9)

Hypothesis Testing (Ch 10)

Bayesian Method for Inference (Ch 16)

Analysis of Categorical Data (Ch 14)

Last Day of Classes: Wednesday, 25 December, 2013

General Notes:

- Students are required to carry pens, note-taking equipment and a calculator to every lecture and exams. It is strongly recommended to keep a binder for class-notes.
- Students are also expected to take notes and organize their solved questions in a binder for easy retrieval to help them in study and review for class, exams, etc. It is to the student's advantage to keep a binder for storing class notes, homework, and other graded assignments. Students who are organized will find it easier to find important materials when studying for exams.
- To successfully prepare for the exam, students must **solve problems** daily and with discipline. The selected assigned problems are specifically designed to prepare you for major exams and final exam. So, it is expected that you complete these problems **step-by-step** and **with comprehension**.
- Never round your intermediate results to problems when doing your calculations. This will cause you to lose calculation accuracy.
- For every exam, so you need to bring with you *pens, pencils, a sharpener, an eraser, and a calculator*.

Academic Integrity: All KFUPM policies regarding ethics and academic honesty apply to this course.