KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
DHAHRAN, SAUDI ARABIA

STAT302: Statistical Inference (191)

Instructor: **Dr. Marwan Al-Momani** **Office: 5-319**
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Office Hours: MW: 9.00 -9:50, T: 11:00-11:50 or by appointment

Textbook: Mathematical Statistics with Application, by Wackerly, Mendenhall and Scheaffer,
Seventh edition.

Remarks:

a. This course is a prerequisite to AS 483.
b. Please note that 302 is only offered in the first semester, AS 483 in the second.

Course Objectives: Present a solid undergraduate foundation in statistical theory, its relevance and importance in solving practical problems in the real world.

Notes Regarding Attendance

- ✓ Students are expected to be in class no later than 11:00 am.
- ✓ No student will be allowed to enter the class after the scheduled time.
- ✓ Any unexcused absence carries a penalty of 1 percentage point.
- ✓ In accordance with University rules, ***6 unexcused absences*** will result in a grade of ***DN***. See Article 9 page 15 of "the Undergraduate Study and Examinations Regulations and the KFUPM Rules for their Implementation" http://registrar.kfupm.edu.sa/docs/pdf/AcademicRegulations.pdf
- ✓ Only University issued excuses for absences will be accepted.
- ✓ The use of mobile phones in class is strictly prohibited, and any student using his mobile will be asked to leave the class and will be marked absent without an excuse.

Assessment

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

Activity	Weight
Homework	16%
Exam 1 (2.12, 6.7, 7.1-7.2, Ch.8) **October 16, 2019-Class time**	23%
Exam 2 (Ch.9 - 10) **November 21, 2019- Class time**	23%
Final Exam (Comprehensive) **December 25, 2019 – at 8:00 am**	38%

Syllabus

Section	Title	Remarks
2.12	Random Sampling	
6.7	Order Statistics	
7.1	Introduction to Sampling Distributions	
7.2	Sampling Distributions Related to the Normal Distribution	
8.1-8.10	Estimation	
9.1-9.19	Properties of Point Estimators and Methods of Estimation	
10.1-10.12	Hypothesis Testing	
16.1-16.5	Introduction to Bayesian Methods for Inference	
14.1-14.7	Analysis of Categorical Data	If time permits

Homework Problems*

Chapter	Problems
6	74, 75, 86, 89
7	10, 13, 14, 21, 26, 30
8	1, 2, 3, 5, 21, 25, 32, 33, 39, 43, 56, 60, 70, 71, 81, 82, 96, 97
9	1, 3, 4, 15, 28, 38, 39, 49, 56, 60, 71, 72, 81, 82
16	1, 2, 7, 8, 18, 24
14	2, 4, 14, 22, 23

Notes Regarding Homework

- Homework should be submitted in class on the first day after a chapter ends.
- No late homework will be accepted.
- Homework not submitted will get a score of zero.
- Homework problems solutions should be complete with justifications and reasons for all steps by referencing theorems, equations and discussion from your textbook.
- Copying from any source, human, print or electronic will result in a zero on the homework and will be reported to the department chairman for appropriate action in accordance with University rules. See Article 38 page 27 of "the Undergraduate Study and Examinations Regulations and the KFUPM Rules for their Implementation" http://registrar.kfupm.edu.sa/docs/pdf/AcademicRegulations.pdf

* For Applet Exercises you can use Minitab or R