

King Fahd University of Petroleum and Minerals
 Department of Mathematics and Statistics
 Dhahran, Saudi Arabia
STAT-301: Introduction to Probability Theory (Term 232)

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Course Description: Basic classical models of probability. Set functions. Axiomatic definition of probability. Conditional probability and Bayes' theorem. Random variables and their types. Distributions, moments, and moment generating functions. Special discrete and continuous distributions. Random vectors and their distributions. Marginal and conditional distributions. Independent random variables. Functions of random variables. Sums of independent random variables. Weak law of large numbers and the central limit theorem.

Textbook: A First Course in Probability by Sheldon Ross, 9th edition. Pearson Education, 2014.

Assessment*

Activity	Weight
Class Participation (home works, quizzes, attendance, etc.)	15%
First Major Exam	25%
Second Major Exam	25%
Final Exam	35%

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

Cheating and Plagiarism: This course is composed of individual assignments. It is important that your individual assignment be completed with your own efforts instead of copying it from your fellow student. KFUPM instructors follow “*zero tolerance*” approach with regard to cheating and plagiarism. During examinations (quizzes and major exams) cheating or any attempt of cheating by use of illegal activities, techniques and forms of fraud will result in a *grade of F* in the course along with reporting the incident to the higher university administration.

Important Notes:

- ✓ Only University issued excuses will be accepted.
- ✓ **Attendance** on time is *very* important.
- ✓ Use of **mobile** is *banned* during the class.
- ✓ **Homework** problems will be assigned later.