King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
STAT-436: Generalized Linear Models - STAT 436-(Term 221)

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Office Hours: will be announced later

Course Description: Topics include: Nonlinear, Poisson and Logistic regression, Linear models, Multivariate Normal and the distribution of Quadratic forms, Link function, The generalized linear model, Estimation (Estimation of Full and reduced rank models. OLS, GLS, ML and Quasi-likelihood. Fisher Scoring), Evaluation of Models (Including Deviance Residuals), Inference (Gauss-Markov theorem, Wald test), Computational aspects and Computer applications for categorical and continuous data with an emphasis on the implementation using statistical software, toolboxes, and libraries like R,

Textbook: Generalized Linear Models with Applications in Engineering and the Sciences (2nd ed.) by Raymond H. Myers, Douglas C. Montgomery, G. Geoffrey Vining, Timothy J. Robinson.
Recommended Text:
Alan Agresti, Foundations of Linear and Generalized Linear Models, Wiley series in Probability and Statistics, 2015.

Assessment*

Activity	Weight
Class Participation (Assignment, quizzes and other class activities)	10%
Lab	15%
First Major Exam	20%
Second Major Exam	20%
Final Exam (Comprehensive)	35%

Important Notes: .

Excuse: Only an excuse issued by *Deanship of Student Affairs* will be accepted for not attending a class, a quiz or an exam.

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, major exams, lab tests) 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:
- Students will be required to carry a scientific calculator **_with statistical functions_** to **_every class, quiz, and exam_**.
- We will explain the R commands in the class and the student is free to do his homework anywhere he likes.
- No student will be allowed to take the exam if not having his/her KFUPM ID or National/Iqama ID cards.
- Students are not allowed to carry mobiles, smart watches, or electronic devices to the exam halls/rooms.
- Students must adhere to the attendance policy of KFUPM

- In accordance with University rules, a __*DN*__ grade will be awarded to any student who accumulates up to 20% (9) unexcused absences or more than 33% (15) excused and unexcused absences of lectures and labs. It is students' responsibility to provide valid written excuses on time before a __*DN*__ report is issued.
- A __*DN*__ grade will be assigned to the eligible student after being warned twice by his/her instructor.
- __*Attendance*__ on time is ***very*** important.
- Mostly, attendance will be checked within the ***first five minutes*** of the class. Entering the class after that, is considered as one late, and ***every two lateness*** equals to one absence.
- All contacts or announcements between the instructor and the students are supposed to be held on Blackboard, so the student ***must*** check his Blackboard inbox ***at least once*** a day.