

Statistical Consulting Unit
Workshops/Training courses

Spring 2024
Workshop #9

Title: Introduction to Bayesian Statistics

Statistical Software: R

Requirements: Intermediate level of statistics

Instructor: Dr. Ali Gargowm

Target Group: Postgraduate students and research workers

Date: 26 Feb., 2024– 10 March, 2024

Period: (12 Hours), 3 days, 4 hours/day

Platform: Face-to-face Meeting

Inclusive of Scientific Materials: PowerPoint Slide Presentation and E-Certificate

Description:

Bayesian approach is becoming increasingly popular in all fields of data analysis. It also plays an increasingly important role in data mining and deep learning. This workshop will be a first step into Bayesian statistics. It will investigate the underlying theory and fundamental concepts by way of simple and clear practical examples.

Topics Covered:

1) Bayes' Theorem. Differences between classical (frequentist) and Bayesian inference. 2) Posterior inference: summarizing posterior distributions, credible intervals, posterior probabilities, and posterior predictive distributions. 3) Gamma-poisson, beta-binomial and normal conjugate models for data analysis. 4) Bayesian regression analysis. 5) Use of simulations for posterior inference. Simple applications of Markov chain-Monte Carlo (MCMC) methods and their implementation in R.

Workshop Fee: AED 1500*

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*20% off for UAEU students