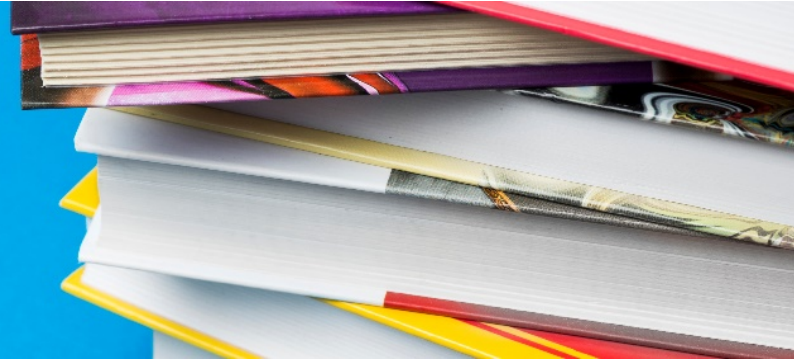




Full Syllabus



Course Title

Practical Statistics and Data Analysis and Visualization Tools for Environmental Studies

Lecturer

Dr. Gaddi Blumrosen

Semester

Fall

Course requirements

Practical Exercises: The lecturer will give online links and references to enrich the understanding.

Home Assignments: none.

Pre-requisite: No pre-requisite required

Final grade components

Analyzing and presenting paper in environmental science using the statistical analysis tools given in the course: 1) define the statistical problem that the researchers try to solve; 2) Describe the set of tools they use; 3) Discuss why they choose to use the tools; 4) Discuss the limitations of the tools they used; 5) bonus suggest alternative statistical analysis tools

Course schedule

Class no. / Date	Subject and Requirements (assignments, reading materials, tasks, etc.)
1. 21/10/20	Random variables, and statistical distribution
2. 28/10/20	Histogram and different statistical distributions (Gaussian, and Poisson)
3. 4/11/20	Statistical measures: mean, standard deviation, and median
4. 11/11/20	Normal Distribution, and zscore
5. 18/11/20	Creating labeled Data sets: need, and challenges
6. 25/11/20	Similarity between population using ttest, ftest and ANOVA
7. 2/12/20	Features extraction and representation
8. 9/12/20	Detection and removing artifacts from dataset
9. 16/12/20	Regression and curve fitting
10. 23/12/20	Classifying data
11. 30/12/20	Fundamental Classification evaluation: classification accuracy and confusion matrix
12. 6/1/21	ROC curve, specificity, sensitivity
13. 13/1/21	Final project presentation and discussion

Required course reading

Optional course reading

Comments



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Full Syllabus

