STAT 6620: Environmental Statistics

Spring 2014

Instructor
Ying Sun, Ph.D.
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Office Hours: 415 Cockins Hall, WF 11:15-12:15 AM or by appointment.

Lectures
WF 10:20-11:15 AM in Journalism Building 0304. Course materials are available in Carmen.

Goals
This course aims to provide an introduction to the types of statistical analyses used in environmental studies. Topics include sampling design, causality, limits of detection, toxicology, risk analysis, time series, spatial statistics, and hierarchical modeling. The course focuses on applications in a variety of different areas including ecology, environmental health, environmental monitoring, and remote sensing of the environment.

Prerequisites
5302 (529) or 6450 (645) or 6910 or Geog 683.xx or 833.01; prereq or concur: Stat 6910; or permission of instructor. Not open to students with credit for 662.

Textbooks

Computing
The required computer package for this class is R.
Homeworks
Homework will complement the work in class, generally due every other Friday. No late homeworks accepted unless prior arrangements have been made. All homework must be submitted on 8.5”x11” paper. Staple the pages together (we are not responsible for lost pages). Submit the problems in order, making sure that the computer output and discussion is placed together. Do not put the computer output at the end of homework; raw output is not acceptable. Make it clear what parts of the output are relevant and show how they answer the questions posed. You are encouraged to work together on the homework, but collaboration with classmates is strictly limited to discussing problems, not writing them up or sharing R code.

Project
Each student is required to complete a final project, which will involve both an oral and written component. More information on the final project will be distributed in class.

Grading
Homework 50%, Final project 50%.

Academic Misconduct
Cheating, plagiarism and other forms of academic dishonesty will not be tolerated. Any violation will be prosecuted to the fullest extent as set out in University Rule 3335-31-02. Please read the university’s Code of Student Conduct, at http://studentaffairs.osu.edu/pdfs/csc_12-31-07.pdf.

Special Accommodations
Any student who feels they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss your specific needs. You should also contact the Office of Disability Services to coordinate reasonable accommodations for students with documented disabilities.
Disclaimer

This syllabus should be taken as a fairly reliable guide for the course content. However, you cannot claim any rights from it and in particular I reserve the right to change due dates or the methods of assessment. Official announcements will ALWAYS be those made in class.