

The Ohio State University
Colleges of the Arts and Sciences Course Change Request

Statistics

Academic Unit

Statistics

662

Book 3 Listing (e.g., Portuguese)

Course Number

Summer Autumn Winter Spring X Year 2006

Proposed effective date: choose one quarter and put an "X" after it; and fill in the year. See the OAA curriculum manual for deadlines.

A. Course Offerings Bulletin Information. Follow instructions in the OAA curriculum manual. Before you fill out the "Present Course" information, be sure to check the latest edition of the *Course Offerings Bulletin* and subsequent Circulating Forms. You may find that the changes you need have already been made or that additional changes are needed. If the course offered is less than quarter or term, please also complete the Flexibly Scheduled/OffCampus/Workshop Request form.

COMPLETE ALL ITEMS THIS COLUMN

Present Course

1. Book 3 Listing: Environmental Statistics
2. Number: 662
3. Full Title: Environmental Statistics
4. 18-Char. Transcript Title: ENVIRONMENTAL STAT
5. Level and Credit Hours G 3
6. Description: Environmental statistical methodologies applied to case studies; topics include the role of ecology, bioassay, risk, censoring, spatial statistics and hierarchical statistics.
(25 words or less)
7. Qtrs. Offered : winter
8. Distribution of Contact Time: 2 1.5 hr cl
(e.g., 3 cl, 1 3-hr lab)
9. Prerequisite(s): 530 or equivalent
10. Exclusion:
(Not open to....)
11. Repeatable to a maximum of _____ credits.
12. Off-Campus Field Experience:
13. Cross-listed with:
14. Is this a GEC course?
15. Grade option (circle): Ltr X S/U P
If P graded, what is the last course in the series?
16. Is an honors version of this course available?
17. Other general course information:

COMPLETE ONLY THOSE ITEMS THAT CHANGE
Changes Requested

- 1.
- 2.
- 3.
- 4.
5. UG
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.

B. General Information

1. Do you want the prerequisites enforced electronically (see the OAA manual for what can be enforced)?

2. Does this course currently satisfy any GEC requirement, if so indicate which category?

3. What other units require this course? Have these changes been discussed with those units?

4. Have these changes been discussed with academic units that might have a jurisdictional interest in the subject matter? Attach relevant letters.

5. Is the request contingent upon other requests, if so, list the requests?

6. Purpose of the proposed change. (If the proposed change affects the content of the course, attach a revised syllabus and course objectives and e-mail to accurofc@osu.edu.)

7. Please list Majors/Minors affected by the proposed change. Attach revisions of all affected programs. This course is (check one):

<input type="checkbox"/> Required on major(s)/minor(s)	<input type="checkbox"/> A choice on major(s)/minors(s)
<input type="checkbox"/> An elective within major(s)/minor(s)	<input type="checkbox"/> A general elective:

8. Describe any changes in library, equipment or other teaching aids needed as a result of the proposed change or if the proposed change involves budgetary adjustments, describe the method of funding:

Approval Process The signatures on the lines in ALL CAPS (e.g. ACADEMIC UNIT) are required.

- | | | |
|--|--------------|------|
| 1. Academic Unit Undergraduate Studies Committee Chair | Printed Name | Date |
| 2. Academic Unit Graduate Studies Committee Chair | Printed Name | Date |
| 3. ACADEMIC UNIT CHAIR/DIRECTOR | Printed Name | Date |
| 4. After the Academic Unit Chair/Director signs the request, forward the form to the ASC Curriculum Office, 105 Brown Hall, 190 West 17 th Ave. or fax it to 688-5678. Attach the syllabus and any supporting documentation in an e-mail to accurofc@osu.edu . The ASC Curriculum Office will forward the request to the appropriate committee. | | |
| 5. COLLEGE CURRICULUM COMMITTEE | Printed Name | Date |
| 6. ARTS AND SCIENCES EXECUTIVE DEAN | Printed Name | Date |
| 7. Graduate School (if appropriate) | Printed Name | Date |
| 8. University Honors Center (if appropriate) | Printed Name | Date |
| 9. Office of International Affairs (study tours only) | Printed Name | Date |
| 10. ACADEMIC AFFAIRS | Printed Name | Date |

Stat 662, Environmental Statistics, Spring 2004 (3 credits)
(Web address: www.stat.ohio-state.edu/~sses/teaching_env.html)

- Instructor:** Noel Cressie (ncressie@stat.ohio-state.edu)
Office: 408B Cockins Hall
Tel: 292-5194 (2-5194)
- Office Hours:** Tues. 10-11 a.m., Thurs. 12-1 p.m., Fri. 11 a.m.-12 noon, or by appointment
- Prerequisite:** Stat 530 or equivalent
- Lectures:** Mon., Wed., 10:30-11:48 a.m.
(There will be occasional labs on Thurs. 5:30-7:30 p.m.; see web page)
- Location:** Lectures in 420 Cockins Hall
Three labs; see web page for dates and location
- Teaching Assistant:** Jim Zhang (zhang@stat.ohio-state.edu)
Office: 223 Cockins Hall
Tel: 247-7487 (7-7487)
Off. Hrs.: Tues 10-11 a.m., Thurs. 12-1 p.m.
- Assessment:**
- | | |
|--|-----|
| Homework (assignments and lab exercises) | 35% |
| Mid-term exam | 25% |
| Final exam | 40% |
- Grades:** Letter grades will be given
- Text Book:** "Environmental Statistics" by V. Barnett, Wiley (2004);
on 2-hour reserve in Science and Engineering Library
- Course Material:** Lecture notes, homework, and assigned readings represent the examinable parts of the course

Syllabus

- Introduction:** Environmental/Ecological studies; Remote sensing; Measurement error; Experiment/Observational study; Causality.
- Toxicology:** Bioassay; LD50; Likelihood analysis
- Limits of Detection:** Types of LODs; Quantile method; Likelihood analysis
- Risk Analysis:** Relative risk; Risk communication and management
- Spatial Statistics:** Geostatistics; Kriging; Spatial linear model; Spatial sampling
- Hierarchical Models:** Components of variance; Bayesian methodology