

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

Statistics

Academic Unit

Statistics

742

Book 3 Listing (e.g., Portuguese)

Course Number

Summer Autumn X Winter Spring Year 06

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: Analysis of Variance
2. Number: 742
3. Full Title: Analysis of Variance
4. 18-Char. Transcript Title: ANLY OF VARIANCE
5. Level and Credit Hours U G 3
6. Description: Theory of the general linear models; lest square estimates and properties, especially in non-full rank models; analysis of variance technique; factorial designs. (25 words or less)
7. Qtrs. Offered : Autumn
8. Distribution of Contact Time: 3 1 hr cl (e.g., 3 cl, 1 3-hr lab)
9. Prerequisite(s): 521 or 623, and Math 471 or 601
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.
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- 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 asccurrofc@osu.edu.)

7. Please list Majors/Minors affected by the proposed change. Attach revisions of all affected programs. This course is (check one):
 Required on major(s)/minor(s) A choice on major(s)/minors(s)
 An elective within major(s)/minor(s) 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.

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|
| 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 asccurrofc@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 742
Autumn 2004

Lecture Time: Tuesday and Thursday 1:00-2:18 p.m. CH312

Instructor: Arijit Chakrabarti, CH317

Office Hours: Wednesday and Friday 1:00-2:00 p.m.

Textbook: A First Course in Linear Model Theory by Nalini Ravishankar and Dipak K. Dey (Chapman & Hall/CRC)

Prerequisites: Basic knowledge of Mathematical Statistics and Linear Algebra

Exam: There will be a midterm (at the end of October/beginning of November) and a final. Both the exams will be closed book.

Homework: Homework assignments will be given almost every week and will be due in one week. I will encourage you to do the homework problems on your own. That will help you understand the subject better.

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| Grading: | Homework | 25% |
| | Midterm | 35% |
| | Final | 40% |

Syllabus: The list below shows the important topics which will be covered in this class.

- A) The general linear model and least squares estimation
- B) Estimability
- C) Multivariate normal distribution and distribution of quadratic forms
- D) Hypothesis testing for the general linear model
- E) Simultaneous confidence intervals and multiple comparison methods
- F) Departure from model assumptions
- G) Analysis of variance for two-way and higher-way classifications
- H) Random and mixed effects models
- I) Model selection methods (time permitting)