Texas A&M University  
Departmental Request for a Change in Course  
Undergraduate + Graduate + Professional  
| Submit original form and attachments |

1. This request is submitted by the Department of **STATISTICS**

2. Course prefix, number and complete title of course: **STAT 612 - Theory of Linear Models**

Attach a brief supporting statement for changes made to items 3a thru 3d, and 5 below.

3. Change requested
   - a) Prerequisite(s): From ___________ To ___________
   - b) Withdrawal (reason) ___________
   - c) Cross-list with ___________

   Cross-listed courses require the signature of both department heads.

   - d) Change in course title and description. Enter complete current course title and current course description; complete proposed course title and proposed course description in items 4 and 5.
   - e) Change in credit/contact hours. Complete item 6b. Underscore change(s). **Attach a course syllabus.**

4. Complete current course title and current course description: **Theory of Linear Models:**
   
   Theory of least squares, theory of general linear hypotheses and associated small sample distribution theory, analysis of multiple classifications.

5. Complete proposed course title and proposed course description (not to exceed 50 words): **Theory of Linear Models:** Matrix algebra for statisticians; Gauss-Markov theorem; estimability; estimation subject to linear restrictions; multivariate normal distribution; distribution of quadratic forms; inferences for linear models; theory of multiple regression and AOV; random- and mixed-effects models.

6. a) As currently in course inventory:

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<tr>
<th>Prefix</th>
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b) Change to:

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Approval recommended by:

**Michael Songmiller**  
Head of Department  
2/12/09

**Chair, College RCM Committee**  
2/16/09

Head of Department (if cross-listed course)  
2/14/09

Submitted to Coordinating Board by:

Dean of College  
Date

Questions regarding this form should be directed to Sandra Williams at 845-8836.  
OAR/AS - 04/07

1 of 6 B14
Texas A&M University
Department of Statistics
MS 3143  TAMU
College Station, Texas 77843-3143

Michael T. Longnecker
Professor and Associate Department Head
Phone: (979) 845-3141 Fax: (979) 845-3144
Email: longnecker@stat.tamu.edu

February 12, 2009

MEMORANDUM

TO: University Curriculum Committee

FROM: Michael Longnecker
Associate Department Head, Statistics

SUBJECT: Change in Statistics Courses

The Department of Statistics has recently conducted an in-depth analysis of its Ph.D. program. The result of this analysis was a revision of several courses and the development of new courses to reflect new areas of research in statistics. The follow courses required changes in the topics covered in the course and/or changes in the course prerequisites: STAT 604, STAT 605, STAT 612, STAT 613, STAT 614, STAT 620, STAT 621, and STAT 632.
STAT 612, Fall 2008

Special Note: Print out, read, sign the form at the end, and return to me in class. I need to know that you have actually read these course rules.

INSTRUCTOR: Raymond James Carroll, Distinguished Professor of Statistics, Nutrition and Toxicology

MY OFFICE HOURS: Tuesdays: 11:00AM - 12:00AM (after class)
                    Wednesdays: 2:00PM - 3:00PM
                    Thursdays: 8:30AM - 9:20AM (before class)

My office is in Blocker Building, Suite 525. I am very happy to answer questions during my office hours: do not be afraid to come to them. Holding office hours is part of my job and something that I enjoy.

If you need to speak with me otherwise, please make an appointment by calling 845-5528: ask for Joyce Sutherland. Because I have many other teaching, research and administrative duties, dropping by my office will not work.

WEB SITE: The class web site is accessed via http://dl.stat.tamu.edu/dogstat. It has homework assignments, pdf files of the lectures, and recordings of the lectures.

EXAMS: There will be one exam and a final, which will count 30% and 50% of your final grade, respectively.

I do not believe that makeup exams are fair to those doing the makeup exams, because such students almost always do poorly.

The homework assignments are posted on the course web site. You are responsible for getting them and figuring out when they are due.

HOMEWORK: Homework will make up 20% of your final grade.
No late homework will be accepted without an official excuse. You may drop your two worst homework grades.

You may work together if you wish.

Because of lack of staffing, it may be the case that not all homework problems will be graded. For essentially all assignments, I will designate only a few questions for grading.

E-MAIL AND PHONE: My e-mail address is carroll@stat.tamu.edu. My assistant's office phone number is 845-5528, and her email address is joyce@stat.tamu.edu. My email can be used for emergencies.
COMPLAINTS ABOUT GRADING: Complaints about homework and exam grading should be taken up with me. The mechanics are as follows. You should write a separate note explaining why you think there was an error in the grade, attach the homework/exam in question, and leave the material with the statistics department (Blocker #447). I would appreciate your not giving me the material after class, because I have lost such stuff in the past.

T.A.: The T.A. for the course is Xiaolei Xun. I will email you hours and office address once the semester begins.

COMPUTING: You should learn R. Second year students who have had STAT 604 have an obligation to assist first year students: this will make the class more enjoyable for everyone, including me. Since we are mixing 1st and 2nd year students in this class, I consider that the latter have a moral obligation to help the former with R. I do not use R very much and cannot give programming help.

Numbering of Classes: There are 28 classes in this semester. I number lectures, etc. by class number.

Q-Drop Date: According to what I can read on the calendar, Q-drop occurs on October 30 Class #20. You will have your 1st exam before this and graded in time for you to drop the course if need be. Please note: you are responsible for learning when the Q-drop date really is, and should not take my word for it.

EXAM DATES: Exam #1, Tentatively, Lecture 16, October 16. I reserve the right to change this date depending on how the class is progressing.

Exam #2 (Final): date determined by the university, currently December 5 at 12:30, you are responsible for checking that this date is the actual date.

COURSE SCHEDULE: You should download the lecture before class.

COURSE CONDITIONS: You do not need to attend class, because the lectures will be available on the web later in the day. However, I think it’s crazy for graduate students in statistics to skip statistics classes.

If you do decide to come to class, I expect you to participate in class, not be late for class, not disrupt the class and not surf the web during class. I find the last particularly appalling and am not a happy camper when it happens.

In addition, your final exam date is the only final exam date.
WHAT IF YOU HAVE A PRIOR CONFLICT? If the exam dates conflict with a prior commitment, I am really sorry but you have to change the commitment.

SOMETHING ABOUT THE INSTRUCTOR: I was born in Japan of military parents and grew up in D.C., Germany and Wichita Falls. got a B.A. from U.T. Austin in 1971 and a Ph.D. in Statistics from Purdue in 1974. From 1974-1987 I was on the faculty at the University of North Carolina at Chapel Hill, also spending time at the Universities of Heidelberg and Wisconsin, as well as at the National Heart, Lung & Blood Institute. From 1987 to the present I have been a full professor here at A&M, along with having visiting appointments at the Australian National University, the Humboldt University in Berlin and the National Cancer Institute. I was head of the department from 1987-1990, and named a Distinguished Professor in 1997.

Here at Texas A&M I work most closely with Joanne Lupton, Nancy Turner and Robb Chapkin in nutrition.

My research interests lie in the general area of regression. Much of this work has been summarized in three books: Transformation and Weighting in Regression (Chapman & Hall, 1988), Semiparametric Regression (Cambridge University Press, 2003) and Measurement Error in Nonlinear Models: A Modern Perspective (Chapman & Hall, 2006).

My hobbies are trout fishing and golf. I am an avid if mediocre wildlife photographer.

STATEMENT ON DISABILITIES:
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Support Services for Students with Disabilities in Room 126 of the Koldus Student Services Building. The phone number is 845-1637.

STATEMENT ON PLAGIARISM:
The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission. As commonly defined, plagiarism consists of passing off as one's own ideas, words, writing, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues.
without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty.”

Your Name: ____________________________________________

Your Signature: _________________________________________

Today’s Date: __________________________________________