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 613 - Advanced Theory of Statistical Inference

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

3. Change requested
   a) Prerequisite(s): From MATH 409; STAT 612 To STAT 612
   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: Advanced Theory of Statistical Inference:

   General theory of estimation and sufficiency including maximum likelihood and minimum variance estimation; Neyman-Pearson theory of testing hypotheses; elements of decision theory

5. Complete proposed course title and proposed course description (not to exceed 50 words): Statistical Methodology I:

   Elements of likelihood inference; exponential family models; group transformation models; survival data; missing data; estimation and hypotheses testing; nonlinear regression models; conditional and marginal inferences; complex models - Markov chains, Markov random fields, time series, and point processes.

6. a) As currently in course inventory:

   Prefix | Course # | Title (excluding punctuation) |
   -------|----------|------------------------------|
   STAT   | 613ADV   | ADVANCED THEORY OF STAT INF  |

   Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | FICE Code |
   ------|-----|-----|----------------------------|-------------|----------|
   03 | 00 | 03 | 2705010001 | | 003632 |

   b) Change to:

   Prefix | Course # | Title (excluding punctuation) |
   -------|----------|------------------------------|
   STAT   | 613STAT | STATISTICAL METHODOLOGY I    |

   Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | Acad. Year | FICE Code |
   ------|-----|-----|----------------------------|-------------|------------|----------|
   03 | 00 | 03 | 2705010001 | 10 | 003632 |

   Level 6

Approval recommended by:

Michael Freiberger 2-19-2009

Head of Department Date

Chair, College Review Committee 2/27/09

Dean of College Date

Submitted to Coordinating Board by:

Date

Date

Question regarding this form should be directed to Sandra Williams at 845-8836.

OAR/AS – 04/07

1 of 4 B15
TEXAS A&M UNIVERSITY
Department of Statistics
MS 3143 TAMU
COLLEGE STATION, TEXAS 77843-3143

Michael T. Longnecker
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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.
STATISTICS 613
Spring Semester, 2009

Instructor  Jeff Hart
Office      459E Blocker Building
Phone       845-1467
Email       hart@stat.tamu.edu
Office hours 3:00-4:00 Monday, Wednesday and Friday, or by appointment
Course website  http://stat.tamu.edu/~hart/613/613.html
Prerequisites  STAT 612
Text       A. C. Davison, *Statistical Models*

Grading Policy

1. Exams: You will have two exams: a midterm and a final that will each constitute
   35% of your grade.

2. Homework: Homework will be assigned and collected on a regular basis and will
   count 30% of your grade. I may not grade every homework problem, but feel free to
   discuss any of the problems with me. You may consult with other students about the
   homework, but always write up your solutions by yourself. *You should never just copy
   from another person or a solutions manual.*

3. Missed assignments: Late homework will not be accepted without an excuse that
   is recognized as valid by the university. Likewise, you will only be allowed to make up
   an exam if it is missed for a valid reason.

Course Outline

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number lectures</th>
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<tbody>
<tr>
<td>1. Chapter 4: Likelihood</td>
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<td>2. Chapter 5: Models</td>
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<td>3. Chapter 7: Estimation and Hypothesis Testing</td>
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<td>Midterm Exam</td>
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<td>4. Chapter 10: Nonlinear Regression</td>
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<td>5. Chapter 6: Models for Stochastic Processes</td>
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<tr>
<td>6. Chapter 12: Marginal Likelihood and Conditional Inference</td>
<td>2</td>
</tr>
</tbody>
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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 Disabilities Services in Room B118, Cain Hall. 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."

ACADEMIC INTEGRITY STATEMENT

"An Aggie does not lie, cheat, or steal or tolerate those who do."

Information about the Honor Council Rules and Procedures can be obtained at the web site: www.tamu.edu/aggiehonor. If an instructor encounters a student cheating or not abiding by university rules then it is mandatory that the instructor report the student to the Aggie Honor System Office: complete information at http://www.tamu.edu/aggiehonor.