Undergraduate Committee Annual Report 2010 – 2011

- Undergraduate Program:
  - Undergraduate Majors: 106 in fall 2010, 106 in spring 2011
  - Honors and Awards
    - 52 undergraduate majors made Dean’s List (GPA of 3.50 or above for 12 or more credits) for fall 2010 and 50 made Dean’s List for spring 2011.
    - Chen Hua (STAT) was elected to the Phi Beta Kappa Honor Society.
    - Pu “Jack” Hou, Haoping Jiang, Pan Tang and Yuanxin Wei graduated Magna Cum Laude.
    - Courtney Thraen graduated Summa Cum Laude.
  - Graduates and First Activity:
    - Jeffory Livingston (F 10) Preparing for Actuarial Exams.
    - Yifan Zhao (F 10) MS program in Statistics, Iowa State University, Ames, IA.
    - Garrett Busch (S 11)
    - Pu “Jack” Hou (S 11 other major Agr Bio) PhD program in Bioengineering at University of Illinois – Urbana/Champaign, IL.
    - Haoping Jiang (S 11) MS program in Statistics, Rutgers University, New Brunswick, NJ.
    - Seung-Gyu Lee (S 11) Returning to South Korea.
    - Pan Tang (S 11) MS program in Actuarial Science at the Columbia University, New York, NY.
    - Courtney Thraen (S 11 other major Psychology) Online Homework Project, Department of Statistics, ISU, Ames, IA.
    - Yuanxin Wei (S 11) MS program in Statistics at Columbia University, New York, NY.
    - Tharushi Welikala (S 11) AMBA Research, Colombo, Sri Lanka.
    - Brian Woerth (S 11) Statistician, USDA Center for Veterinary Biologics, Ames, IA.
  - Undergraduate Scholarships and Awards 2011 – 2012
    - George W. Snedecor Undergraduate Statistics Award
      - Justin Zaugg
    - Herta and H.T. David Scholarship
      - Xizi Shi
    - Schillmoeller Family Scholarship
      - Lendie Follett
    - Charlie and Barb Hunt Scholarship
      - Erin Pauly
• Scott Kongable Scholarship
  • Li Wang
• Undergraduate Scholarship
  • Caleb Miller
• JAK Scholarship
  • Brandon Butcher

• Service Teaching:

The Committee approved the texts authored by faculty members in the Department for use in the following courses. Professor Marasinghe did not participate in the discussion or vote on his text.

  • Stat 105 and Stat 305; Basic Engineering Data Collection and Analysis by Vardeman and Jobe, Duxbury/Thomson Learning.
  • Stat/IMSE 361: Statistical Quality Assurance Methods for Engineers by Vardeman and Jobe, Wiley.
  • Stat 479; SAS for Data Analysis by Marasinghe and Kennedy, Springer.

A summary of numbers of students enrolled in statistics courses (100 to 399) appears in an accompanying report. The largest enrollment courses are Stat 101 (1053), Stat 226 (991), Stat 326 (543), Stat 104 (548) and Stat 305 (455). After reaching a high of 1691 in 2008-2009, enrollment in business statistics classes has declined to 1544. This decline has been offset by increases in Stat 104 and in engineering statistics courses. With the increase in enrollment in our undergraduate program the number of students in Stat 100: Orientation to Statistics and the undergraduate probability and statistics theory sequence is now at an all time high.

• Recommendations for teaching and coordinating 100 – 399 level statistics courses.

  o The individual coordinating a course (Stat 101, 104, 226, 326, etc.) should also teach a section of that course.
  o If an individual will be coordinating both fall and spring semesters, it should be the same course both semesters.
  o An individual should not be given two courses to coordinate in the same semester.
  o An equitable system for determining the value of coordinating a course (e.g. ¼ of a course, ½ of a course) should be established taking into account the number of student contact hours and the number of graduate teaching assistants that need supervision.
  o The individual teaching Stat 341 in the fall should teach Stat 342 in the spring.
- Proposed Changes to the Undergraduate Program and Course Offerings

Undergraduate Program

- Change the undergraduate major requirement from Stat 101, 104 or 226 to 201. If a student takes Stat 101, 104 or 226 before declaring a statistics major, that course can be substituted for Stat 201 with permission of the Director of Undergraduate Studies.

- Change the undergraduate major requirement from Stat 401 to Stat 301.

- Change the requirement of “at least two additional courses in statistics at the 400 level or above” to “at least six additional credits in statistics at the 400 level or above”

Undergraduate Courses

- Drop the special section of Stat 101 offered in spring for our majors and undergraduate students with high math ability and replace it with Stat 201.

  Stat 201 Introduction to Applied Statistics (3-2) Cr. 4. S. Prereq: Credit or enrollment in Math 165. Statistical thinking; display and summary of data; comparing data distributions. The Normal model. Association, correlation and simple linear regression. Re-expressing data. Collecting data. Probability rules; random variables. Sampling distribution models. Inference for proportions; inference for means. Comparison of proportions, comparison of means. Credit for only one of the following courses may be applied toward graduation: Stat 101, 104, 105, 201, 226.

- Drop the undergraduate sections of Stat 401 offered in fall and spring and replace them with Stat 301.

  Stat 301 Intermediate Applied Statistics (3-2) Cr. 4. F, S. Prereq: Stat 101 or 104 or 105 or 201 or 226. Statistical methods for analyzing and interpreting numerical data. Statistical models for numerical responses; estimation; hypothesis testing with continuous and discrete data; simple linear and multiple linear regression and correlation; residuals; outliers; leverage; influential points; multicollinearity. Model fitting. Analysis of variance. Credit for only one of the following courses may be applied for graduation: Stat 301, 326, 401.

- Change the prerequisite for 400 level statistics courses that currently have Stat 401 to a prerequisite of Stat 301 or 326 or 401.