**UT Math 2600: Course Inventory in CEMS**

|  |  |
| --- | --- |
| Course # | Math 2600 |
| Course Title | Introduction to Statistics |
| Campuses (Main, Regional) | Main |
| Beginning Term (when is (was) it offered for the first time?) | Fall 1997 |
| Credit Hours (including the entire course, lecture/lab) | 3 |
| Co-/Pre-requisite  | Intermediate Algebra or appropriate placement score. |
| Catalog Description | An introduction to descriptive and inferential statistical methods including point and interval estimation, hypothesis testing and regression. |
| Textbook/Lab Manual | ISBN: 9780321761712Title: Essentials of Statistics w/cd + AccessPublisher: PearsonAuthor: Mario F. TriolaEdition: 4th editionCopyright Year: 2011Additional Notes: |
| Outside Readings/Ancillary Materials/ Instructional Resources | Pearson MyMathLabs |
| Instructional Goals or Objectives | After the completion of this course, students will have developed a statistical literacy in conjunction with each objective below:1. Summarize and interpret data visually through appropriate statistical graphs. Calculate and summarize descriptive statistics through analytical and technological means.2. Analyze bivariate data through scatterplots and test the strength of linearity between the two variables using correlation. Determine whether a regression line is appropriate for the relationship and compute predictions from regression lines.3. Calculate probability dealing with the normal distribution. Convert a normal distribution into a standard normal distribution by computing the z-score. Apply the Central Limit Theorem appropriately.4. Recognize the different types of data and methods of collecting data. Determine whether a study or sampling technique provides a representative sample and thus yielding valid results.5. Calculate basic probabilities (complement, conditional probability) and determine what the range of probability values means. Calculate probability using addition rule for disjoint events and multiplication rule for independent events.6. Construct a sampling distribution of a statistic (mean and proportion) through generation of repeated simple random samples.7. Estimate a population proportion and mean by using a point estimate and confidence interval. State the correct interpretation of a confidence interval and also explain the effect margin of error has on sample size and the confidence level.8. Determine the appropriate sample size for estimating a proportion and mean given a specific margin of error and confidence level.9. Perform all steps of a hypothesis test for a proportion and mean: state the null and alternative hypotheses; calculate the right test statistic; find critical region(s), calculate the p-value, and determine whether to reject the null hypothesis; and state the conclusion in a clear, simple manner that relates back to the original claim being tested. |
| Description of Assessment and/or Evaluation of Student Learning | Online and written homework: 15%Quizzes: 15%3 Midterm exams and comprehensive final exam: 70% |
| Additional Information |  |

Please attach syllabi (including co-/pre-requisite and current working and master syllabi for Transfer Module courses).