

***Understanding Basic Statistics* 3rd Brase/Brase**

Transition Guide from 2nd edition to 3rd edition

The first things you will notice about the 3rd edition of *Understanding Basic Statistics* by Brase and Brase is the new trim size, the attractive color photos illustrating the wide applications of statistics, and the fact that key definitions, concepts, and procedures are highlighted for easy reference.

There are some content changes.

Chapter 1 of the second edition has been divided into two chapters in the third edition. The new Chapter 1 includes an introduction, the discussion of random samples, and a new section introducing experimental design. The new Chapter 2 includes prior sections on types of graphs, on frequency distributions and histogram, and on stem-and-leaf displays.

The standard normal distribution table has been changed to show the area to the left of z (the former table showing the area from 0 to z is still included in an appendix).

The t distribution is now used to test the correlation coefficient r .

Other minor changes have been made to clarify topics and to update problem sets.

What is retained is the careful presentation of concepts, methods, and interpretation of statistical ideas. The useful Guided Exercises and carefully constructed problem sets that help students learn continue in the 3rd edition.

The user friendly video programs from Dana Mosely are revised to match the 3rd edition. Additional useful tools for the 3rd edition such as a quizzing program, glossary, downloadable tables and formula sheets, and PowerPoint slides will be available on the Web. A CD-ROM with data sets, tutorial features, and the software ComputerStat will be packaged with every student text.

The following outline details the changes in the 3rd edition of *Understanding Basic Statistics*.

Main Revisions in Text

I. Global changes

New to each chapter opening are **Chapter Preview Questions** and a **Chapter Focus Problem**.

Each section has **Focus Points** that describe the primary learning objectives of the section.

Labels for each Example or Guided Exercise describe the technique, concept, or process illustrated by the example or guided exercise.

Technology Notes replace calculator notes throughout. The point-of-use technology notes briefly describe relevant procedures for using the TI-83Plus calculator, Excel, and Minitab.

Updated section and chapter problems and viewpoints where needed.

More photos and photos in color emphasize the wide range of applications of statistics.

New **trim size and design**.

Continuing features include labels for section and chapter problems describing the field of application. Some revisions occur in the using technology feature, viewpoints, data highlight group projects, and linking concepts writing projects.

II. Main content changes

- ! **Revisions in Chapters 1-5 make the presentation more succinct.** Definitions and procedures are boxed for easy review.
- ! **A new Chapter 1 Getting Started** includes an introduction to statistics, and the section on random samples from Chapter 1 of the 2nd edition. Section 1.3 Introduction to Experimental Design is a new section that discusses data production, experiments, observations, and randomized two treatment experiments.
- ! **The new Chapter 2 Organizing Data** contains graphing topics from Chapter 1 of the 2nd edition. In particular, the chapter contains Section 2.1 Bar Graphs, Circle Graphs, and Time Plots, Section 2.2 Frequency Distributions and Histograms, and Section 2.3 Stem-and-Leaf Displays.
- ! **Because of the new chapters, later chapters are renumbered.** Chapter 2 of the 2nd edition is now Chapter 3 in the 3rd edition, etc.
- ! Chapter 5 Elementary Probability Theory of the 3rd edition is essentially Chapter 4 of the 2nd edition. However, Section 5.3 Trees and Counting Techniques now shows how **to use trees to find the probability of various events** and to further illustrate conditional probability.

- ! **New Standard Normal Distribution Table is the left-tailed cumulative style.** The new table is a two-page table that gives the area to the left of a specified z value. The Standard Normal Distribution table giving the area between 0 and z that was used in previous editions is included in an appendix with instructions for its use.
- ! **Changes to examples and guided exercises to reflect the new style normal distribution table** occur in Chapter 8 Introduction to Sampling Distributions, Chapter 9 Estimation, Chapter 10 Hypothesis Testing, and Chapter 11 Inferences About Differences.
- ! In Section 12.4 of the 3rd edition (corresponding to Section 11.4 of the 2nd edition) , the **Student's t distribution table is used to test the correlation coefficient r** in linear regression (In prior editions a specific table showing the critical values for the Pearson product moment correlation coefficient r was used). In addition, **testing the correlation coefficient β** is also presented using the Student's t distribution.

Main Revisions in Supplements

- I. A CD-ROM provided free with each new student text includes**
 - more than 100 data sets (formatted for TI-83Plus, Minitab Portable files, Excel, ASCII)
 - with a description of the data sets
 - multiple choice quizzes for each chapter with annotated answers
 - ComputerStat
- II. A formula card with the Normal Distribution Table and Student's t Distribution Table provided free with each new student text**
- III. Student Solutions Guide replaces the Student Study Guide**
 - This guide has complete solutions to odd-numbered problems
- IV. Revised lecture videos by Dana Mosely that are also available in a DVD format.**
- V. Enhanced Web site includes**
 - Multiple choice quizzes for each chapter with annotated answers
 - Links to relevant Web sites (those referred to in text as well as more general sites)
 - Downloadable tables and formulas
 - Glossary
 - PowerPoint slides
 - Tutorial quizzes
 - On-line tutoring free to students who purchase a new text, and available for a small

fee to other students.

VI. Revised Instructor's Resource Guide

complete solutions to all problems (both even and odd numbered)
sample tests for each chapter including both multiple choice and free response
teaching hints
masters for tables and formula card

VII. HM ClassPrep CD-Rom for instructors includes

electronic copy of Student Solutions Guide
electronic copy of Excel Guide
electronic copy of Technology Guide (TI-83Plus, Minitab, ComputerStat)
electronic copy of Instructor's Resource Guide
computerized test item file
course management tools

VIII. The text may be packaged with the latest student version of Minitab

IX. Custom published options are available from *Understandable Statistics* 7th edition.