MS Module sequence Summer 2024 onwards

The readings for mathematical statistics are specified for both the second (2nd) and the third (3rd) edition of the Devore text. The material has not changed from the second edition; most examples are the same, and the statistical procedures are identical in the two texts.

! The second edition of the Devore text is on the discussion forum.
! The third edition of the Devore text may be bought from Amazon or other booksellers.

Modules

Two complex statistical procedures that are not use in actuarial work (Levene's test and Tukey's procedure) have been removed from the syllabus, simplifying modules 10-14 on analysis of variance (ANOVA). To keep the 24 module sequence,

! Module 4 Hypotheses and Test Procedures is now split into
    " Module 4a Type 1 and Type 2 errors:
    " Module 4b Tests about a population mean

! Module 5 Hypothesis testing of proportions is now split into
    " Module 5a Tests About a Population Proportion
    " Module 5b Hypothesis testing – *p* values

Textbook order

The textbook section on logistic regression has been moved:

! In the second edition of the Devore textbook on mathematical statistics, logistic regression is covered in §12.1 "The simple linear and logistic regression models" (the beginning of regression models) and assigned to Module 15.
! In the third edition of the Devore textbook on mathematical statistics, logistic regression is covered in §12.10 "logistic regression models" (the end of regression models, after correlation and residual analysis) and assigned to Module 21.

The material is the same, but its location in the text has changed. The third edition has additional material on logistic regression that is not included in the course readings.

Final exam

The module readings specify what material will appear on the final exam. For example, the textbook discusses the realism of assumptions, but a multiple choice question exam cannot easily test that topic. Review the practice problems and practice exam questions on the discussion forum to know what you will be tested on.

End of chapter exercises

The discussion forum postings specify the end of chapter exercises most similar to the final exam problems. The discussion forum postings titled practice exam questions and practice exam problems are modeled on the final exam problems. The final exam does not try to trick you, asking an item only briefly mentioned in the text. The practice exam questions and practice problems on the discussion forum are extensive, but they have clear, detailed solutions. If you read the assigned sections of the textbook and work through the practice exam questions and practice problems on the discussion forum you should pass the final exam.