

291:532 Course Outline

Spring, 2012

Title: Statistical Methods II

Instructor: Douglas A. Penfield
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Time: Tuesday, 4:50-7:30 PM Place: MU-114

Prerequisites: 291:531

Books: Introduction to the Practice of Statistics (7th ed.)
Moore, McCabe, and Craig
W. H. Freeman and Co.
SPSS Student Version 17.0 for Windows

Exams: Midterm - **March 6** Final - **May 1**

Schedule of Lectures

- Jan. 17** Introduction to Hypothesis Testing (Sections 6.2 & 6.3);
Power (Section 6.4)
- Jan. 24** One Sample t Test and Matched Pairs t Test (Section 7.1)
{Skip: **The power of the t test, Inference for non-Normal
populations, and The sign test**}
- Jan. 31** Two Sample z Test and Two Sample t Tests (Section 7.2)
- Feb. 07** One Sample Variance Test and Two Sample Test of Variances
(Section 7.3) {Skip: **The power of the two-sample t test**}
- Feb. 14** One Sample Proportion Test (Section 8.1)
Two Sample Test for Proportions (Section 8.2)
- Feb. 21** Analysis of Two-Way Tables (Section 9.1)
Chi-Square Tests for Two-Way Tables (Section 9.2)
{Skip: **Section 9.3 (Goodness of Fit)**}
- Feb. 28** Simple Linear Regression (Section 10.1)
- Mar. 06** **Midterm**
- Mar. 20** Simple Linear Regression (Section 10.2)

Mar. 27 Multiple Regression (Chapter 11)
Apr. 03 One-Way ANOVA (Section 12.1)
Apr. 10 One-Way ANOVA, Contrasts and Multiple Comparisons
(Section 12.2) {Skip: **Power**}
Apr. 17 Two-Way ANOVA (Section 13.1)
Apr. 24 Two-Way ANOVA (Section 13.2) and Review
May 01 **Final**

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Homework Assignments

- Jan. 17 P. 378-381 (6.52, 6.56, 6.71, 6.73)
P. 387-388 (6.91, 6.93)
P. 397-398 (6.110, 6.111)
- Jan. 24 P. 426-432 (7.15, 7.22, 7.27 Computer, 7.41 Computer)
- Jan. 31 P. 453-459 (7.69, 7.76, 7.78, 7.80)
- Feb. 07 P. 465-466 (7.98, 7.100, 7.102, 7.110)
- Feb. 14 P. 486-490 (8.12, 8.16, 8.20, 8.21, 8.28, 8.31)
P. 502-504 (8.52, 8.53, 8.55, 8.65, 8.67)
- Feb. 21 P. 535-544 (9.18, 9.24, 9.29, 9.30, 9.36 Computer)
- Feb. 28 P. 579-590 (10.6, 10.7, 10.8, 10.10 Computer)
- Mar. 20 P. 579-690 (10.12, 10.13 Computer, 10.20, 10.21 Computer)
- Mar. 27 P. 613-621 (11.9, 11.10, 11.11, 11.12, 11.13,
11.30 Computer)
- Apr. 03 P. 656-667 (12.13, 12.15, 12.19, 12.23, 12.30)
- Apr. 10 P. 656-667 (12.38 Computer, 12.42 Computer,
12.43 Computer, 12.44 Computer & By Hand)
- Apr. 17 P. 699-709 (13.3, 13.4, 13.5, 13.7, 13.24,
13.32 Computer)