

16:300:515 Course Outline

Spring, 2012

Title: Quantitative Research Methods II: ANOVA

Instructor: Douglas A. Penfield (732-932-7496 x8324) - GSE Rm. 324
e-mail: douglas.penfield@gse.rutgers.edu

Time: Thursday, 4:50-7:30 PM Place: MU-112

Prerequisites: 291:531 and 291:532

Books: Design and Analysis (A Researcher's Handbook) (4th ed.)
Geoffrey Keppel & Thomas D. Wickens
Pearson Prentice Hall, 2004

Exams: Midterm - **March 22** Final - **May 3**

Schedule of Lectures

Jan. 19 Introduction & Single Factor Design (Chaps. 1-3)
Jan. 26 Planned Comparisons & Orthogonal Contrasts (Chap. 4)
Feb. 02 Trend Analysis (Chap. 5)
Feb. 09 Planned Comparisons & Post Hoc Procedures (Chap. 6)
Feb. 16 Assumption Violations, Effect Size, & Power (Chaps. 7-8)
Feb. 23 Two-Way Factorial Design (Chap. 10)
Mar. 01 Factorial Design & Blocking (Chap. 11)
Mar. 08 Main Effects and Interactions (Chap. 12)
Mar. 22 **Midterm**
Mar. 29 Single Factor Within-Subject Designs (Chap. 16)
Apr. 05 Single Factor Within-Subject Design (Chap. 17)
Apr. 12 Two-Factor Within-Subject Design (Chap. 18)
Apr. 19 Two-Factor Mixed Design (Chap. 19)
Apr. 26 Two-Factor Mixed Design (Chap. 20)
May 03 **Final**

HOMEWORK

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DOUGLAS A. PENFIELD

<u>DATE</u>	<u>Assignment</u>
Jan. 19	Page 31 (2.1, 2.2) Pages 58-59 (3.1, 3.2 [use SPSS], 3.7)
Jan. 26	Page 84-87 (4.1, 4.2, 4.4)
Feb. 02	Pages 109-110 (5.1(a), 5.2, 5.3 [use SPSS & turn in on 2/09])
Feb. 09	Pages 130-131 (6.1, 6.2, 6.3)
Feb. 16	Page 158 (7.1, 7.2) Pages 179-180 (8.1 [use SPSS], 8.3, 8.4)
Feb. 23	Pages 209-210 (10.1, 10.2, 10.3)
Mar. 01	Pages 239-241 (11.2 [use SPSS], 11.3, 11.4 [use SPSS & turn in on 3/08])
Mar. 08	Pages 264-265 (12.1, 12.2, 12.4)
Mar. 29	Pages 366-368 (16.1 [use SPSS], 16.2 [use SPSS])
Apr. 05	Pages 399-400 (17.1 [use SPSS & turn in on 4/12], 17.2)
Apr. 12	Pages 429-431 (18.1 [use SPSS])
Apr. 19	Page 448 (19.1 [use SPSS], 19.2 [use SPSS])