

SYLLABUS FOR MPM 403

Dr. Farver, 1014 Haring Hall, tbfarver@ucdavis.edu, 752-7290 Office Hours: TuTh 9-10
Dr. Fosgate, 1024 Haring Hall, gtfosgate@ucdavis.edu Office Hours: MF 10-11

Lecture: MWF 9:00-9:50 AM, 203 Surge IV Lab: M 1:10-3:00 PM

September 29, October 2,4	One-factor Analysis of Variance: Background Theory, ANOVA Table Generation and Use
October 6	Kruskal-Wallis Test; nonparametric Bonferroni multiple comparison procedure
October 9,11	One-factor Analysis of Variance: Multiple Comparison procedures; Tabular Presentation of Results
October 13	Verbal Presentation of Results; Power Calculations, Sample Size Determinations
October 16	The ANOVA Model, Fixed versus Random Effects
October 18,20,23	Randomized Complete Block Design: Background, ANOVA, Power, Sample Size Determinations, Multiple Comparisons; Introduction to Repeated Measures Designs
October 25	Friedman Test; Multiple Comparisons
October 27	Sphericity
October 30	Background on Vectors and Matrices
November 1	The Relationship of Vectors and Matrices to Regression Analysis
November 3	Review of Straight-line Regression
November 6,8,10	Multiple Regression Analysis: Prediction - General Considerations
November 13,15	Multiple Regression Analysis: Prediction - Interval Estimation and Hypothesis Testing
November 17,20	Multiple Regression Analysis: Association Assessment
November 22,27	Two-factor Analysis of Variance: Fixed-effects Model

November 29	Two-factor Analysis of Variance: More Complex Repeated Measures Designs
December 1	Two-factor Analysis of Variance: Interactions and What to do about Them
December 4,6	Multiple Regression Analysis: Overview of Regression Diagnostics (KKM: 212-252)
December 8	Quiz on Experimental Design and Regression Diagnostics

((Two-factor Analysis of Variance: Fixed-effects Model/Random- and Mixed-effects Models))

Laboratory/Discussion 1	The Completely Randomized Design (October 2)
Laboratory/Discussion 2	The Kruskal-Wallis One-way ANOVA by Ranks (October 9)
Laboratory/Discussion 3	Exam 1 (October 16)
Laboratory/Discussion 4	The Randomized Complete Block Design (October 23)
Laboratory/Discussion 5	The Friedman Two-way ANOVA by Ranks (October 30)
Laboratory/Discussion 6	Exam 2; Working with Matrices on Minitab (out of class) (November 6)
Laboratory/Discussion 7	Multiple Regression - Prediction (November 13)
Laboratory/Discussion 8	Multiple Regression - Association Assessment (November 20)
Laboratory/Discussion 9	Exam 3; The Factorial Experiment (out of class) (November 27)
Laboratory/Discussion 10	Repeated Measures Factorial (December 4)

Dates for Exams:	October 16	1-3 PM
	November 6	1-3 PM
	November 27	1-3 PM

WWD - Wayne W. Daniel: Biostatistics. 1999. A Foundation for Analysis in the Health Sciences, Seventh Edition

KKM - Kleinbaum, DG, LL Kupper, Muller, KE and A Nizam. 1998. Applied Regression Analysis and

Other Multivariable Methods, Third Edition.

One-factor ANOVA	(WWD: 295-317; KKM: 423-434, 438-457)
Kruskal-Wallis	(WWD: 691-696)
Randomized Complete Block	(WWD: 322-331; KKM: 484-499)
Repeated Measures Design	(WWD: 334-339; KKM: 744-757)
Friedman Test	(WWD: 701-705)
Vectors and Matrices	(KKM: 732-743)
Review of Straight-line Regression	(WWD:400-447; KKM: 39-60; 104-107)
Multiple Regression	(WWD:474-506); (KKM 111-123; 136-149; 186-198; 212-252)
Two-factor ANOVA	(WWD: 341-353; KKM: 516-529, 534-544)

Exam Policy: open book; calculators are permitted.

Weights for final grade determination:

Exam 1	22%
Exam 2	22%
Exam 3	22%
Quiz (12/8/00)	9%
Home Work	25%
Total	100%

Grade Scale:

	A 91.5%-100%	A- 89.5%-91.4%
B+ 86.5%-89.4%	B 79.5%-86.4%	B- 77.5%-79.4%
C+ 74.5%-77.4%	C 69.5%-74.4%	C- 64.5%-69.4%
D+ 59.5%-64.4%	D 54.5%-59.4%	D- 49.5%-54.4%
	F below 49.5%	