Spring 2006 *W. Thomas*
MoosT 2-530, Mon & Wed 10:10–12:05

Syllabus for PubH 6451: Biostatistics 2

Date	*Notes section*	*Topics (Moore and McCabe chapter)*
January 18	1	Review: t-tests, p-values, standard errors (MM 6–7)
23	2	One-factor ANOVA: pooled error term (MM 12)
25	3, 4	Displaying differences among means; log transform (MM 12)
• *30*	4, 5	Two-factor ANOVA: main effects and interactions (MM 13)
February 1	6	Two-factor ANOVA: main effects and interactions (MM 13)
6	7	Two-factor ANOVA in SAS: example
8	8, 9	Types of factors: strata and treatments; crossover, subsampling
• *13*	10, 11	Review: simple linear regression; smoothing (MM 10, 11)
15	12, 13	Multiple regression: slopes and intercepts
20	14, 15	Linear adjustment vs stratified analysis
22	16, 17	Regression analysis example.
• *27*	18–21	Dropping covariates to simplify a regression model
March 1		**Test 1**
6	22	Estimating sample size for a study
8	23, 24	Review: tables of counts, chi-square test, odds ratio, relative risk (MM 9)
		Spring Break
20	25–27	Case-control studies; CMH test
• *22*	28, 29	Logistic regression (MM 15 online)
27	29, 30	Logistic regression: odds ratios and predictions (MM 15 online)
29	31	Logistic regression: indicator variables and adjusted odds ratios
April • *3*	32, 33	Matched case-control, McNemar's test, conditional logistic regression
5	34–36	Event data: Kaplan-Meier estimate of survivor function
10	36–38	Event data: interpreting and comparing survivor functions
12	39	Event data: stratified comparison of survivor functions
• *17*	40	Examples of reporting of survival analyses
19		**Test 2**
24	41	The hazard function
26	42	Proportional hazards regression
May 1	43	Poisson regression: comparing rates
• *3*	44	Mortality and BMI example; review
10	**Final Exam: 10:30–12:30, Wednesday, 10 May**	

• homework assignment due (tentative)