AMS 7

Tentative syllabus and reading list: Summer 2016

An approximately 820-page packet of course materials will serve as the text for the course and will be made available at cost in class during the first week (in this packet, DD = draft book by David Draper [O = older version, N = newer version], LN = lecture notes).

Lecture NumberDateTopicChaptersPages in DD120 JunPopulations and samples; data types1 (O, N), 2 (O)1-49222 JunGraphical and numerical descriptive methods2 (N), 3 (O, N)50-66324 JunUsing the normal distribution descriptively; controlled experiments; observational studies4 (O), 5 (O)67-83427 JunControlled experiments; observational studies5 (O), 6 (O)84-94529 JunProbability; conditional probability for sums and means9 (O), 10 (O)119-13661 JulProbability models interval estimation9 (O), 10 (O)137-16088 JulSample size determination; hypothesis testing161-173911 JulPitfalls of hypothesis testing; power174-1851013 JulTwo-sample problems (dichotomous and continuous outcomes)186-2061115 JulTwo-sample problems (continued);207-244				Readings	
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11 15 Jul Two-sample problems (continued); 207–244			(dichotomous and continuous outcomes)		
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correlation 201 211			correlation		
12 18 Jul Regression — 245–257	12	18 Jul	Regression		245-257
12 20 Jul Analysis of variance 260, 280	13	20 Jul	Analysis of variance		269-289
(ANOVA) — 209–289			(ANOVA)		
14 22 Jul Categorical 200 211	14	22 Jul	Categorical		290-311
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Written work for AMS 7 will be assigned and due according to the following approximate schedule:

Assignment	Handed Out	Due In
Homework 1	20 Jun	27 Jun
Homework 2	$27 \mathrm{Jun}$	5 Jul
Takehome Midterm	5 Jul	11 Jul
Homework 3	11 Jul	18 Jul
Homework 4	18 Jul	22 Jul
Takehome Final	22 Jul	25 Jul