!4 Mathematical Statistics Spring, 1997

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extbook; R. Larsen and M. Marx, {\em Introduction to
ıthematical Statistics and Its Applications},
ıd edition, Prentice Hall, 1986.

extbook is fine

ethod of assessment (how many points for exams, quizzes, homework, etc):
tests worth 100 points plus a final worth 150 points plus
omework scaled to 5 points and used after letter grade
eaks have been decided. The 3 tests during the semester
.us a final is too much and breaks up the course too much---in the
ıture I recommend 2 tests and a final (and maybe a few quizzes).

and large I did not use multiple choice questions, though for statistics
ıltiple choice makes sense since many of the students are preparing
or the actuary tests which are multiple choice.

have enclosed my sheet with the list of homework assigned.
gave a solid amount each class and the class worked hard.

opics covered:

oint densities

ıdependent random variables

ombining and transforming random variables

ıe max and min order statistics

onditional densities

:pectation variance

.gher moments and moment generating functions

ıebychev's inequality (very briefly)

ıe basic distributions(Poisson, normal, geometric, negative
binomial, gamma, exponential)--- a few classes wer spent on the
normal---including the central limit theorem

oint estimators (including efficiency and unbiadness)

.nimum variance estimators and t maximum likelihood estimation

ıterval estimation

ypothesis testing---type I and II erros, generalized likelihood ratio

ıe family of relatives to the normal distribution, i.e, chisquare, F, student

ıny hypothesis tests (sing and multiple sample) for means and variances

›nfidence intervals

ıltinomial distribution and chi-square goodness of fit tests (degrees
: freedom and estimating parameters)

ıi-square tests of independence

›variance, correlation, and linear regression

ɛast squares method

ıe linear model

ıe bivariate normal density

ypothesis tests related to the linear model

›me simple nonparametric tests: the sign test and the Wilcoxon sign test

would normally have covered design of experiments, analysis
: variance (aka anova), and I would have liked to have gone further in
›nparametric statistics.