Course Outline STA347H1

from the private notebook
of
David Brenner
Jan 11, 2023

contact info:                           lectures:
Prof. David Brenner                   Wed 1 - 2   SF 1105
Hydro Bldg (9th fl)                    Fri 12 - 2   ditto

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ref./text:

Brenner, David :
FROM THE PRIVATE NOTE BOOK OF
Illustrated adventures in very (very) mathematical
stochastic modelling & statistical inference, 2004-23

Ash, Robert B. :
BASIC PROB THEORY (1970/2008)

Ross, Sheldon M. :
INTRO TO PROB MODELS (1972/2000/3)

Grimmett, Geoffrey & Stirzaker, David :
PROBABILITY & RANDOM PROCESSES (1982/2004/5)
topics:

cautions: all contents subject to shuffling, merging, expansion
& (really serious) modification

• probability, expectation & the LLN;
  the CLT & slutsky

• the elementary distributions of statistical practice;
  binomial, poisson and gaussian processes

• the (extremely) general linear model:
  means, variances, correlation & regression;
  conditional expectation & the bayes theorem

• moment generating functions, characteristic functions
  & the multivariate normal

• probability generating functions, random walks, markov
  chains, markov processes and martingales

grading (G):

test (T) = 40 — Fri. Feb. 17

final (F) = 60 — Apr. 11 - 28

\[ G = T + F \]

(NOTE: test T will be held during class time.)