

# Course Outline STA2112F/452H1

from the private notebook  
of  
David Brenner

Sep13, 2017

**contact info:**

Prof. David Brenner  
Sid Smith 6016A  
416-978-6368  
[brenner@utstat.toronto.edu](mailto:brenner@utstat.toronto.edu)  
office: Wed. 12-1

**lectures:**

Wed 10-12, Fri 10-11

**ref./text:**

Brenner, D. :  
FROM THE PRIVATE NOTE BOOK  
Illustrated adventures in very (very) mathematical  
stochastic modelling & statistical inference, 2004-17

Fraser, D.A.S. :  
PROB & STATS: THRY & APPS (1976/2002/8)

Knight, K. :  
MATH STATS (2000)

Lehmann, E.L. :  
TESTING STAT HYPs (1957/86) & THRY of PT EST (1986)

Silvey, D.F. :  
STAT INF (1976)

**topics:**

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

- the elementary distributions of statistical practice
- expectation & the LLN, Slutsky & the CLT
- the general linear model: correlation & regression,  
conditional expectation & Bayes' theorem
- characteristic functions, rotational invariance  
& the multivariate normal
- order statistics & permutation invariance

**grading ( $G$ ) :**

test ( $T$ ) = 40 - Wed. Nov. 15

3 assignments @ 20 each ( $A = A_1 + A_2 + A_3$ ) = 60

$$G = T + A$$

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