ACT451H1S/STA2500H LOSS MODELS

Pre/corequisites
  STA261H; STA347H; ACT348H
You are subject to removal from the course if you are missing any of these

Lecture Times and Locations
  Tuesday 11AM-12PM, Thursday 10AM-12PM, SS1088

Instructor & Office Hours
S. Broverman, SS6016, 978-4453, sam@utstat.toronto.edu
Monday 1:30 to 3PM or by appointment

Textbook
ACTEX STAM Study Manual - this is used for ACT451, ACT452 and ACT466
(available from www.actexmadriver.com)

Recommended Reference
Loss Models, From Data to Decisions, S. Klugman, etc. 4th Ed.

Course Outline
ACT451 will cover material from Section 1 to about Section 21 of the STAM Study Manual if time
permits. ACT452 is a follow up course so the material will continue in ACT452 up to Section 30

Marking Scheme
  One term test (October 25-40%) and a final exam (60%)

Those who miss a term test must submit within one week of the test a U of Toronto Student
Medical Certificate completed by a physician who attended to the illness. Failure to do so will
result in a mark of 0 for that test. For those with a valid certificate, test weight will be moved to
the final exam.

A calculator will be needed for some test questions. There is no restriction on the type of calculator
allowed.

COURSE SYLLABUS
Week 1   Probability Review
Week 2   Spliced Models, Mixture Distributions (Discrete and Continuous)
Week 3   Policy Adjustments (Policy Limit and Deductible) (1)
Week 4   Policy Adjustments (Policy Limit and Deductible) (2)
Week 5   Policy Adjustments Applied to Various Severity Distributions
Week 6   Properties of Frequency Distributions
Week 7 $(a, b, 0)$ and $(a, b, 1)$ Class and Introduction to Compound Distributions
Week 8   Compound Distributions (1) and Term Test
Week 9   Compound Distributions (2)
Week 10   Compound Distributions (3), The Recursive Method
Week 11   Stop Loss Insurance
Week 12   Distribution Tail Behaviour and Risk Measures