

ACT 466H1/STA2505H, Credibility and Simulation, Winter 2018

Lecture Section	L0101
Lecture times, location	Tu 11:10 a.m. - 12:00 p.m. –ES 4001 Thur 10:10 a.m. - 12:00 p.m. – RW140
Instructor	Dr. Andrei Badescu, SS6011 badescu@utstat.toronto.edu
Instructor office hours	Wed: 2:30 p.m.- 4:00 p.m. – SS6011 or by appointment.
TA	Office Hours: TBA

Texts:

Required

- *Exam C Study Guide, Volume 2, Part A* - 2014, Samuel A Broverman , available on ACTEX website (<http://www.actexamdriver.com/>).

Additional

- *Loss Models from Data to Decisions*, 4th Ed., by Klugman S., Panjer H., Willmot G.

Coverage:

- Limited Fluctuation Credibility
- Bayesian Credibility – Discrete and Continuous Prior
- Bayesian Credibility for Parametric Distributions
- Buhlmann Credibility
- Empirical Bayes Credibility Methods
- Simulation

Course Objective:

This course is designed to help you to prepare for the portion of Exam C of the Society of Actuaries (www.soa.org). Questions and in-class discussions are encouraged.

Marking Scheme:

The final course mark will be determined via 1 in-class term test, worth 40% and a final exam worth 60%. These weights will not be changed, either for the whole class or for any individuals. The test and the final exam will NOT be in multiple choice format.

- Term Test - Thursday 1st of March, 1 ½ hours (during the class time), 10:10 – 11:40 am
- Final Exam - TBA

Missed Term test:

There will be no written make-up test. If you miss the term test, you are required by faculty regulation to submit, **within one week**, appropriate documentation to the course instructor. Print on the documentation your name, student #, the course number and the date. I shall be skeptical about accepting medical certificates unless the doctor specifically indicates that in his/her opinion there was a disabling health problem on the day of the test. If your documentation is accepted, there will be an oral examination of 1 ½ hours at a time decided by the instructor.

Calculator:

A calculator is essential for working exercises, tests and final exam. The Texas Instruments BA II PLUS calculator is one of the calculators allowed on the Society of Actuaries examinations; it has the financial functions that would be needed for this course and is recommended. All non-programmable calculators are allowed. Please go to the SOA website and check the list of calculators allowed by SOA and those will be ok for this course.

E-mail policy:

E-mails will only be answered if they are from a U of T address. When there are many e-mail requests, not all can be answered, but an answer to a common question will be posted on the blackboard.

Prereq: The only mandatory prereqs for this class are ACT451, STA261. I will be willing to waive the STA347 if the student completes the waiver form that can be found at: <http://utstat.toronto.edu/wp-content/uploads/2011/09/Prereq-Coreq-Waiver-Request-Form-Winter-2018.pdf>
The deadline to do so is the 18th of January, those students who will not do this will be taken out from the class on the 19th of Jan. 2018.

Updates:

All the possible updates regarding to this course will be made in class and on blackboard.

UAP: Canadian Institute of Actuaries (CIA)'s University Accreditation Program (UAP)

ACT466 is an accredited course under the UAP program. The minimum grade needed to apply for an exemption is 75. For detailed information on UAP, please visit the following webpages:

- University Accreditation Program description
<<http://www.cia-ica.ca/membership/uap>>
- List of accredited courses offered by University of Toronto:
<http://www.cia-ica.ca/membership/uap/accredited/toronto>
<<http://www.cia-ica.ca/membership/uap/accredited/toronto>>
- How to apply for CIA exemptions:
<<http://www.cia-ica.ca/membership/uap/information-for-students>>

Note: The CIA will grant credits to students for SOA/CAS examinations based on the achievement of the minimum Grade towards Associateship (ACIA) and Fellowship (FCIA) in the CIA. At the time of this agreement, CIA credits are recognized by the following actuarial organizations towards their respective designations:

Casualty Actuarial Society (CAS): ACAS, FCAS

UK Institute and Faculty of Actuaries (IFoA): FIA, AIA

Institute of Actuaries of Australia (IAA): AIAA, FIAA

Actuarial Society of South Africa (ASSA): AMASSA, FASSA

American Academy of Actuaries (AAA): MAAA

The CIA does not guarantee that credits granted to students under the CIAUAP will be recognized by any other actuarial organizations towards their actuarial designations."