Instructor: Dr. Yi Lu

Prerequisite:

ACMA 335

Recommended Text:

Loss Models, 3rd Edition, by S.A. Klugman, H.H. Panjer and G.E. Willmot; Publisher: Wiley.
An introduction to Mathematical Risk Theory, 1979, by H.U. Gerber; Publisher: S.S. Huebner Foundation for Insurance, U. of Pennsylvania.
Modern Actuarial Risk Theory, 2001, by R. Kaas, M. Goovaerts, J. Dhaene and M. Denuit; Publisher: Kluwer Academic Publishers.
A Course in Credibility Theory and its Application, 2005, by Hans Bühlmann and Alois Gisler; Publisher: Springer.

The main objective of this course is to review advanced actuarial models in non-life insurance and to introduce some methods which are relevant for actuarial practice. The topics covered by this course are the following:

1. Some topics on individual risk models and collective risk models.
2. Classical risk process and ruin theory.
3. Some practical methods: Bonus-malus system, IBNR techniques.
4. Topics on generalized linear models (GLM) with applications in actuarial statistics.

Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the

posting of marks. Please pay careful attention to the options discussed in class at the beginning of the semester. Students are reminded that Academic Honesty is a cornerstone of the acquisition of knowledge. Scholarly integrity is required of all members of the University. Please consult the General Guidelines of the calendar for more details.

Revised June 2009

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