

## Invitation to a Course on Non-Life Insurance Mathematics

Winter Semester 2006/2007  
Salzburg University

- Lecturer:** Prof. Dr. Matthias Reitzner, Vienna University of Technology  
Visiting professor at Salzburg University
- Dates:** On the following weekends Friday from 4 p.m. to 7 p.m. and Saturday from 9 a.m. to 12 noon:  
6<sup>th</sup> and 7<sup>th</sup> October 2006  
20<sup>th</sup> and 21<sup>st</sup> October 2006  
10<sup>th</sup> and 11<sup>th</sup> November 2006  
24<sup>th</sup> and 25<sup>th</sup> November 2006  
12<sup>th</sup> and 13<sup>th</sup> January 2007  
26<sup>th</sup> and 27<sup>th</sup> January 2007
- Contents:** The course covers all aspects of non-life insurance mathematics required to become a fully qualified actuary according to the core syllabus of the International Actuarial Association and the core syllabus of Groupe Consultatif, according to the regulations of the Actuarial Association of Austria (AVÖ), as well as according to the regulations of the German Actuarial Association (DAV). The course is suited to all those who want to become acquainted with the main questions and methods in non-life insurance mathematics. Basic stochastic knowledge is required. Please find the structure of the course below.
- Course fees:** €948. The course fees cover the 6 overnight accommodations from Friday to Saturday in a 4 star hotel including breakfast.  
The fees for participants who do not need accommodation are €444.
- Information:** For further information, please contact Sarah Lederer by fax (+43 662 8044 155) or e-mail ([sarah.lederer@sbg.ac.at](mailto:sarah.lederer@sbg.ac.at)) with your telephone number. Your questions will be answered as soon as possible.

Registration: Please send the attached registration form by post or fax it to +43 662 8044 155, and arrange for the amount to be transferred (at no cost to the recipient) to the following account before 15<sup>th</sup> September 2006:

Salzburg Institute of Actuarial Studies (SIAS)  
IBAN: AT 792 040 400 000 012 021 BIC: SBGSAT2S

Location: Lecture Hall 414 in the Faculty of Science  
A-5020 Salzburg, Hellbrunner Straße 34

## Course Structure

### 1. Risk models

- The individual model
- The collective model
- Claim number distributions
- Claim size distributions
- Aggregate claims distributions
- Approximation of aggregate claims distributions

### 2. Ruin theory

- Ruin probabilities
- Safety loadings
- Large claims and heavy tailed distributions
- Solvency

### 3. Premium calculation

- Principles of premium calculation
- Bonus-malus systems
- Risk segmentation

### 4. Claims reserving

- Run-off triangles
- Chain ladder method

### 5. Risk sharing

- Proportional reinsurance
- Excess of loss reinsurance
- Stop loss reinsurance

From 20<sup>th</sup> October 2006 the course lectures on Fridays are accompanied by exercises from 2.30 p.m. to 4 p.m. Registration to the exercises will be made on 6<sup>th</sup> October 2006. There is no extra cost for the exercises.