AKTUARVEREINIGUNG
ÖSTERREICHS

ÖSTERREICHISCHE GESELLSCHAFT
FÜR VERSICHERUNGSFACHWISSEN

UNIVERSITÄT
SALZBURG

Salzburg Institute of Actuarial Studies
5020 Salzburg, Hellbrunner Straße 34

Invitation to a Course on Actuarial Modelling

1st to 4th November 2006
Salzburg University

Lecturers: Dr. Nora Gürtler, AMB Generali Holding AG, Aachen
Visiting professor at Salzburg University

Frank Schepers, Towers Perrin/Tillinghast, Cologne
Visiting professor at Salzburg University

Dates:
Wed. 1st Nov. 9.00–13.00 and 14.30–18.00
Thur. 2nd Nov. 9.00–13.00 and 14.30–18.00
Fri. 3rd Nov. 9.00–13.00 and 14.30–16.30 (19.00 concert and reception)
Sat. 4th Nov. 9.00–12.00

Contents: The course covers all aspects of actuarial modelling 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). Starting with basic definitions, the classification of models and an introduction to the modelling process („Actuarial Control Cycle"), we move to a survey on the application of models in insurance. There, we focus on the objectives, selection, calibration and critical review of models in practice. By examination of typical examples and an extended case study, we present the fundamental models used in life and non-life insurance, and illustrate their components, structure, functionality, areas of application and relevance in an insurance company. The course is designed not only for actuarial students, but also addresses experienced practitioners. Basic knowledge of insurance mathematics is required. Please find the structure of the course below.

Course fees: € 796. The course fees cover the 4 overnight accommodations from Tuesday to Saturday in the Castellani Parkhotel including breakfast. The fees for participants who do not need accommodation are € 480. Lunches and coffee breaks are included in the fees as well as the concert and the reception on Friday evening.

Information: For further information, please contact Sarah Lederer by fax (+43 662 8044 155) or e-mail (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 25th August 2006. After this date registration with hotel accommodation is only possible upon request. The registration and payment deadline for participants who do not need accommodation is 6th October 2006.

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

Location: Lecture Hall 402 in the Faculty of Science
A-5020 Salzburg, Hellbrunner Straße 34

The concert and the reception on Friday evening will be held in the historic Max-Gandolph-Library in the centre of Salzburg's Old Town.

Course Structure

1. Basic concepts of modelling

- Definition and components of a model
- Characteristics of models in insurance
- The Actuarial Control Cycle

2. Models in life insurance

- The profit test as an example for a micro model
- Transition from the profit test to a model for the whole portfolio (components, structures, applications)
- Construction of a model for business in-force and new business
- Applications of liability models (e.g. Embedded Value, corporate planning, valuation of a life insurance portfolio)
- Basic concepts of an asset/liability model
- Applications of asset/liability models

3. Models in non-life insurance

- General concepts and discussion of selected models in life insurance
  - Individual and collective model for the stochastic modelling of claims
  - Examples of models in non-life insurance
- Models for corporate planning and valuation
- Components and structure of a non-life insurance company model for Dynamic Financial Analysis (DFA)
  - Basic concepts and structure of an asset/liability model in the non-life context
  - Stochastic modelling of gross claims (attritional claims, large claims, natural catastrophes), validation and plausibility checks
  - Reinsurance model
  - Reserving risk
  - Modelling of dependency structures
  - Modelling of the development of claims over time
  - Corporate model
- Applications of a DFA model, e.g.
  - Calculation of ruin probabilities
  - Cost of Capital, Risk Adjusted Returns, Economic Value Added (EVA)