

## **Invitation to a Course on Actuarial Modelling** **with special consideration of Solvency II**

30<sup>th</sup> September 2015 to 3<sup>rd</sup> October 2015  
Salzburg University

- Lecturers:**
- Dr. Nora Gürtler  
Chief Risk Officer  
Generali Deutschland Holding AG, Cologne  
Visiting professor at Salzburg University
- Dr. Markus Orasch  
Senior Consultant  
Towers Watson, Cologne  
Visiting professor at Salzburg University
- Dates:**
- Wednesday, 30<sup>th</sup> September 2015, 9.00 – 17.30  
Thursday, 1<sup>st</sup> October 2015, 9.00 – 17.30  
Friday, 2<sup>nd</sup> October 2015, 9.00 – 17.30  
Saturday, 3<sup>rd</sup> October 2015, 9.00 – 12.30
- Contents:**
- A survey on the application of models in insurance will be given, starting with basic definitions, the classification of models and an introduction to the modelling process. The focus will be on the objectives, selection, calibration and critical review of models in practice. Particular attention will be drawn to the role of actuarial models in the context of Solvency II.
- The course covers all aspects of actuarial modelling required to become a fully qualified actuary according to the education syllabus of the International Actuarial Association and the core syllabus of the Actuarial Association of Europe as well as according to the regulations of the Actuarial Association of Austria (AVÖ), which correspond to the regulations of the German Actuarial Association (DAV). For continuing professional development (CPD) the course counts as 21 hours. 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:** € 594 (incl. VAT) without hotel accommodation, € 954 (incl. VAT) with accommodation from Tuesday to Saturday (4 nights) in the Castellani Parkhotel including breakfast. Lunches and coffee breaks are included in the fees for all participants.
- Information:** For further information, please contact Sarah Lederer by 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 by e-mail ([sarah.lederer@sbg.ac.at](mailto:sarah.lederer@sbg.ac.at)), 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 28<sup>th</sup> August 2015. 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 11<sup>th</sup> September 2015.

Salzburg Institute of Actuarial Studies (SIAS)  
IBAN: AT79 2040 4000 0001 2021 BIC: SBGSAT2S

Location: Faculty of Science, Lecture Hall 402  
5020 Salzburg, Hellbrunner Straße 34

## Course Structure

### 1 Basic concepts of modelling

- a. Definition and components of a model
- b. The Actuarial Control Cycle
- c. Main structure of Solvency II

### 2 Models in life insurance

- a. Profit testing
- b. Transition from the profit test to a model for the whole portfolio (components, structures, applications)
  - Main structure of liability models
  - Aggregation/model points
- c. Applications of liability models (e.g. Embedded Value, corporate planning, valuation of a life insurance portfolio)
- d. Basic concepts of an asset/liability model
  - Basic concepts
  - Company, scenario, asset and strategy models
- e. Applications of asset/liability models
- f. Standard and internal model in the context of Solvency II for life insurance

### 3 Models in non-life insurance

- a. General concepts and discussion of selected models in non-life insurance
  - Individual and collective model for the stochastic modelling of claims
  - Examples of models in non-life insurance
- b. Models for corporate planning and valuation
- c. 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 and corporate models
  - Reserving risk
  - Modelling of dependency structures
  - Modelling of the development of claims over time
- d. Applications of a DFA model
- e. Standard and internal model in the context of Solvency II for non-life insurance