

Quantitative and statistical courses for insurance professionals

Seminars and workshops for insurance professionals of all levels of experience that explain in simple intuitive terms common techniques and terminology used in insurance pricing, reserving, reinsurance and capital modelling

$$f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$$

No complex formulae to understand, just plain common sense concepts that everyone working in insurance can relate to.

The most basic handheld calculator will be all you need in the majority of case studies.



“Any underwriter who has not attended at least one of MatBlas’ courses...should waste no time in putting that right”

Fees:

Fees for public courses are published on our website www.matblas.com/training, for bespoke or in-house courses please contact us for a quote.

The course fee includes comprehensive course material, refreshments and lunches.

How to book:

1. On line at www.matblas.com/register.php
2. By phone 020 7510 9690 or e-mail training@matblas.com
3. An invoice will be sent once registration is received

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How to contact us:

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A Message From The Director

Since I founded MatBlas in 2007 I have had the pleasure to personally train hundreds (average 200 per year) of insurance professionals from all disciplines (underwriting, claims, finance, legal, HR, compliance, internal audit and actuarial) and levels of experience (from graduate to chief executive officer).

When I was the pricing actuary for a large global insurance group, I found a wide gap in the market of providers of quantitative courses in insurance. There were basically 2 options: academics that know the theory, but often lacked the jargon and practical experience and consultants from large consultancy firms, whose main goal was to use training courses as an avenue to market their software and other services (and charge high fees for it!)

What about if someone wanted to learn basic statistics but did not have sufficient level of mathematical training? Or if anyone wanted a better understanding of actuarial techniques and concepts but did not want to prepare for the actuarial exams?

Regardless of whether Solvency II ever goes live or not, insurance professionals today have the need and the desire to improve their technical and quantitative skills...

In our seminars and workshops we teach delegates how to connect the five R's of insurance practice (Rating/Underwriting, Reserving, Reinsurance, Reporting and Risk/Return) and why consistent pricing is the key to making internal processes and reports more efficient.

If you have not heard from us before, then I would like to tell you why our courses are unique in the insurance market:

1. Unlike our competitors, training is one of our core services, not just something we do to market other services and products. In our courses we teach, we do not sell.
2. You will leave the course knowing exactly how to implement the learned concept with the tools available in your office: NO SPECIAL SOFTWARE, NO HIDDEN DETAILS. In fact, you would be

implementing all concepts during the course to realistic data. We also provide you a clean easy-to-follow sample solution for your future reference.

3. I am an industry practitioner, I work day in and day out with underwriters, I have developed more bespoke rating models than any other consultant in the market and I know the real issues and limitations faced in practice. I also happen to have over 15 years of training experience. This unique combination of skills allows me to deliver training courses for practitioners in an easy to understand and easy to follow format. All case studies look like real life cases and we even teach you how to overcome common pitfalls in practice.

We have dozens of testimonials on our website and I have included some at the back of the brochure.

Regardless of your level of experience and your professional development interests, whether you just want an overview or you want to be able to implement some of the techniques yourself, whether you work in underwriting, claims, finance or legal, I guarantee you there is a course which is just right for you...JUST LOOK INSIDE THIS BROCHURE.

I look forward to seeing you in one of our courses this year!

Sincerely,



Ana J. Mata, PhD, ACAS
Managing Director

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QUANTITATIVE TECHNIQUES FOR UNDERWRITING MANAGEMENT

(One Day Seminar)

This is perhaps our most popular course among managers and class of business underwriter. Delegates attending this course are generally involved in a management role and are looking to join the dots between pricing, reporting, reserving and capital modelling to streamline their internal processes.

This course focuses on interpretation rather than implementation of standard techniques and concepts in the areas of benchmarking and pricing, management reporting, loss reserving, planning and forecasting together with a brief overview of capital modelling and solvency II.

"A course well delivered. Very interactive case studies. Highly recommended for underwriting managers and senior underwriters."

Underwriting Manager

Who should attend?

- Chief executive officers
- Chief underwriting officers and underwriting directors
- Managing directors
- Underwriting managers
- Class or line of business underwriters

Format

This is a one day seminar split in four sessions of 90 minutes each. For each session the trainer presents key concepts and exhibits for 30-40 minutes followed by a case study with interactive Q&A. The case studies only require a hand held calculator.

Throughout the day we encourage delegates to ask questions.

Key topics covered

- The cost of an insurance policy: the claims cost
- Insurance rating:
 - Benchmark vs. technical price
 - Key loss ratios
 - Risk factors and risk classifications
 - Designing efficient consistent rating models – data capture
- Rate changes and rate adequacy
 - What is rate change
 - Measuring changes in risk profile
 - Rate adequacy
 - Linking loss cost, loss ratio, rate change and rate adequacy
 - Integrated management reporting
- From pricing to reserving
 - Business plan ELR vs. pricing loss ratio
 - Basics of claims reserving
 - Basic methods of reserving – three methods to one answer
- Experience rating
 - Pure premium vs. loss ratio method
 - Applications to planning and forecasting
- Insurance regulation and capital modelling
 - Key assumptions
 - The 99.5th percentile or 0.5% VaR
 - What is risk capital
 - The concept of diversification

"Invaluable for the "modern" underwriting world"

Senior Underwriter

FUNDAMENTALS OF INSURANCE RATING

(One Day Workshop)

If you are a modern underwriter or looking to develop your own rating models, perform some ad hoc actuarial analysis, experience rate some of your larger risks and being able to perform some basic reserving analysis, YOU MUST NOT MISS THIS COURSE.

This is a 100% hands on workshops that through computer base real life examples will allow you to implement the learned concepts to realistic data and show you how to draw conclusions and incorporate them in your day to day underwriting process.

From designing benchmark rating plans to complying with reporting requirement and recalibrating rates, we will walk you through the actuarial modelling process: from data to models to answers to decisions.

Who should attend?

- Underwriters of all levels

Format

For each session the trainer presents key concepts and exhibits for 30-40 minutes followed by a relevant case study with interactive Q&A.

Delegates must bring their own laptop computer to work on the case studies.

Key topics covered

- Understanding probabilities and the expected value concept within the insurance framework
- Understanding the components of premium rates
 - Expected loss cost
 - Expenses
 - Commissions
 - Risk and profit loading
- How is the loss cost calculated
 - Using probabilistic models
 - Using claims experience
- Loss cost, premium and loss ratios
- Benchmarking and technical pricing
- Design and implementation of consistent rating models
- Reporting using the outputs from rating models
 - Rate change or rate monitoring
 - Rate adequacy
 - Expected loss ratio
- Using claims experience to re-calibrate rating models and factors

“Very useful and relevant course for both new and experienced insurance professionals, particularly underwriters”

Chris Webb
Underwriter, Pembroke Underwriting

REINSURANCE PRICING IN PRACTICE

(Two Day Workshop)

Objective

This course has been designed with treaty underwriters and brokers in mind. Whether using models developed by in-house actuaries or developing their own models, delegates will gain a significant understanding of standard actuarial methods used to price reinsurance treaties.

The course is delivered based on the standard reinsurance pricing process workflow, from submission, to data, to models, to premium, to profit.

Who should attend?

Although the course builds up from basic concepts, basic knowledge of reinsurance terms will be an advantage.

- Reinsurance underwriters interested in gaining a deeper understanding of actuarial reinsurance pricing
- Reinsurance underwriters and analyst developing internal rating models
- Reinsurance brokers modelling reinsurance alternatives for their clients

"Felt the course content was relevant and well put together. Very useful 2 day course"

Underwriting Manager

Format

Prior reading will be required for delegates to familiarise with basic terminology and jargon

used in practice. Pre-course material will be provided a few weeks before the course.

For each session the trainer will present key concepts and exhibits for 30-40 minutes followed by application to a relevant case study.

Participants will work on the same data set throughout to replicate a typical submission workflow. Case studies are computer base and basic knowledge of Microsoft Excel is required.

Key topics covered

- Basic statistical concepts and applications in reinsurance
- Introduction to reinsurance
 - What is covered and how does the contract respond
- Pricing quota share treaties
- Pricing methods for XOL treaties
 - Exposure rating
 - Experience rating
 - Frequency/severity or mixed methods
- Selecting the loss cost
 - Basics of credibility
- Evaluating profitability of a contract including reinstatements and other common features.
- From loss cost to combined ratio

BASIC STATISTICS FOR INSURANCE PROFESSIONALS

(One Day Workshop)

Objective

This course has been designed for insurance and reinsurance professionals who want to understand basic statistics and applications to insurance and reinsurance pricing and modelling in general. We also present an introduction to probabilistic models and to common families of statistical distributions commonly used in practice.

After the course, participants will be able to:

- Understand the concept of “volatility” within a statistical framework and their impact in various insurance and reinsurance applications.
- Understand how to work with probabilities in any insurance or reinsurance situation.
- Understand the difference between statistical analysis done with data and with models.
- Understand what a loss distribution is.
- Apply the learned concepts to specific practical situations including pricing and capital modelling.

Who should attend?

Any insurance professional working with data and using data to perform basic analyses.

Format

For each session the trainer will present basic concepts for 30-40 minutes, immediately followed by implementation of these concepts

to data sets in Microsoft Excel. The course provides step-by-step instructions so all participants can easily follow. In addition, participants will learn how to use Microsoft Excel built-in statistical functions to implement the learned concepts.

“A thoroughly enjoyable, insightful course; well presented, well organised and very well run. Highly recommended.”

- Random variables and probability distributions
 - Tabulated probability distributions
- Common families of probability models used in practice
 - Poisson distribution
 - Normal distribution
 - Exponential distribution
 - Gamma distribution
 - Lognormal distribution
 - Pareto distribution
- Basic statistical concepts
 - Mean, median, mode, variance and standard deviation
 - Histograms, percentiles plots
 - Other graphic representations
 - Concept of volatility and skewness
- Data vs. models
- Practical applications
 - Fitting basic models
 - Using data vs. using models
 - Capital modelling and the 1-in-200 year concept

BASIC ACTUARIAL CONCEPTS FOR NON-ACTUARIES

(Two Day Workshop)

Nowadays actuaries are involved in each area within an insurance or reinsurance company. Actuaries interact with underwriters, claims professionals, finance/accounting professionals, IT developers, legal and compliance and often present to senior management and board members.

Actuaries speak a language of their own often not understood by other insurance professionals.

This course covers all key areas within an insurance company from basic statistics, pricing, reporting, reserving and solvency regulation and capital modelling.

In a very basic format delegates will leave with a deeper understanding of how insurance works and what are the techniques used by actuaries to support all key areas within an insurance company.

Who should attend?

- Graduates starting a career in insurance
- Underwriting assistants and assistant underwriters involved in pricing and modelling
- Finance and accounting professionals working in insurance
- Legal and compliance professionals interacting with actuaries regarding Solvency II and capital modelling
- Claims professionals interacting with actuaries regarding claims reserves
- Anyone working in insurance that directly works with actuaries

Format

Given that for most delegates this is the first exposure to some concepts and terminology, delegates will be given various reading material to work on prior to attending the course. The course will focus on practical

aspects of the concepts and some case studies and therefore it is mandatory for delegates to have read the material beforehand.

For each session the trainer presents key concepts and exhibits for 30-40 minutes followed by a relevant case study with interactive Q&A.

Delegates must bring their own laptop computer to work on the case studies.

“Very useful and relevant course for both new and experienced insurance professionals, particularly underwriters”

Chris Webb
Underwriter, Pembroke Underwriting

Key topics covered

- Understanding key aspects of insurance
- Basics of insurance pricing
 - Components of premium
 - What is a rate
 - The loss cost component
 - Benchmarking and technical pricing
- Designing rating models taking into account the specific characteristics of each line of business
- Management reporting
 - Rate monitoring on renewal risks
 - Rate monitoring vs. rate adequacy
 - Rate adequacy and new business monitoring
- Basic methods of claims reserving
 - Chain ladder method and Bornhuetter-Ferguson method
 - Selecting an ultimate loss or loss ratio
 - Actual vs. expected results

- Experience rating
 - Premium and exposure adjustments
 - Loss adjustments
 - Estimating the burn cost
 - Modelling policy features (aggregate deductibles, reinstatements, etc)
- Planning and forecasting
 - Loss ratio projection
 - Allowing for claims inflation and rate movements
 - Allowing for new business and business strategy
- Capital modelling
 - Input: data and assumptions
 - Overview of modelling process
 - Output: interpretation of results

What are the main reasons people sign up for this course?

Here are the top three reasons:

1. Lack of internal actuarial pricing support and the need to speed up the development of technical and benchmark pricing models in light of Lloyd’s technical pricing reporting requirements.
2. To be able to perform more sound experience rating analysis.
3. To be able to develop sound underwriting management systems and processes that incorporate: rating, reserving, reinsurance and risk analysis.

Who has attended before?

The majority of delegates come from Lloyd’s syndicates from mid level underwriters to underwriting managers.

Many delegates were performing their own pricing, planning and forecasting analyses before the course and attended in order to

add “more actuarial background” to what they were doing.



What other courses complement this one?

Delegates that have taken this seminar as their first course have then taken the one day workshop on Basic Statistics (p9) in order to gain a deeper understanding of how to fit Increased Limits Factors and Exposure Curves to real data.

What is included in the registration fee?

The course material includes: course notes, case study templates in Microsoft Excel®, case study instructions and sample solutions.

The registration fee also includes refreshments and lunches.

“Excellent explanation of relevant course material.”

Underwriter

MANY OF YOUR INDUSTRY COLLEAGUES HAVE BEEN TO OUR COURSES...AND THIS IS WHAT SOME OF THEM HAVE TO SAY

The course was very useful- as a refresher and also to get more detailed info with regard to the pricing analysis.

Lauren Kent, Endurance
(Reinsurance Pricing for Non-Actuaries, 2010)

I really enjoyed the course. It was very relevant to every day pricing issues. In depth, clear explanation.

Treaty Underwriter
(Reinsurance Pricing for Non-Actuaries, 2010)

Good course well presented. Thoroughly enjoyable and relevant for me at this early stage of my career. I have only been 'underwriting' for 5 months. Thank You.

Mark Quigley, Chaucer (Reinsurance Pricing for Non-Actuaries, 2009)

Very interesting and Ana gave much food for thought.

Grant Le Sage, AXA
(Actuarial Techniques for Underwriting Management, 2009)

Invaluable for the 'modern' underwriting world.

Richard Bryant, Ark Underwriting
(Actuarial Techniques for Underwriting Management, 2008)

Excellent course which should be a must for all senior underwriters

Senior Underwriter
(Actuarial Techniques for Underwriting Management, 2009)

Very impressed with course contents relevance to insurance.

Chris Sandys, Markel International
(Basic Statistics, 2010)

Interesting course, well presented, good material and relevant to the day to day jobs undertaken. Also good to brush upon Excel skills.

Arran Wright, Amlin
(Basic Statistics, 2009)

Excellent balance of theory and practical application that helps the non-actuary understand the concepts.

Treaty Underwriter, Lloyd's
(Basic Statistics, 2010)

Very informative course. Very relevant to underwriting management.

Nigel Dorning, Amlin UK
(Actuarial Concepts and Methods for Underwriters, 2010)

Very useful and clearly presented, sympathetic to the needs of underwriters.

Senior Underwriter
(Fundamentals of Insurance Rating, 2010)

Very interactive, Excellent knowledge from presenter and was easy to follow. She answered all our questions and the whole course was very informative and relevant.

Angela Crawley, Brit Insurance
(Fundamentals of Insurance Rating, 2010)

A course well delivered. Very interactive case studies. I highly recommend this course to underwriting management.

Senior Underwriter, Lloyd's
(Actuarial Techniques for Underwriting Management, 2008)

A thoroughly enjoyable insightful course; well presented; well organised and very well run. Highly recommended!

(Basic Statistics: Loss Models, ILFs and Exposure Curves, 2008)

A company that is filling a big hole in the training market for actuarial skills for non-actuaries.

Stuart Dale, Treaty Underwriter
(Actuarial Techniques for Underwriting Management, 2008)