



# علم التأمين العملي للمحترفين في مجال الرياضيات التأمينية

**Duration:** 5 Days

**Language:** ar

**Course Code:** P05-135

## Objective

:By the end of this course, participants will be able to

- Understand the role of actuarial science in insurance operations and strategy
- Apply actuarial models to risk assessment, product pricing, and reserving
- Analyse mortality, morbidity, and loss data to inform insurance decisions
- Evaluate solvency requirements and capital adequacy frameworks
- Explore the integration of actuarial science with modern technologies such as predictive analytics and AI
- Apply actuarial concepts to ensure regulatory compliance and financial resilience

## Audience

:This course is ideal for

- Insurance professionals seeking actuarial knowledge
- Junior actuaries and actuarial trainees
- Risk managers and financial analysts
- Underwriters and claims managers
- Regulators and compliance officers

.Academics and consultants specialising in insurance and finance •

## Training Methodology

The course combines expert-led lectures, actuarial modelling demonstrations, and group discussions. Participants will work with practical data sets, apply actuarial tools, and analyse real-world insurance case studies

## Summary

This advanced training course introduces participants to the principles and practices of actuarial science, with a strong focus on its applications in the insurance industry. Actuarial science combines mathematics, statistics, and financial theory to assess risk, design insurance products, and ensure the financial stability of insurance companies

Participants will explore the key actuarial methods used in life, health, property, and casualty insurance. The course also covers regulatory requirements, reserving techniques, pricing strategies, and the role of actuaries in solvency management and risk assessment. Practical case studies will demonstrate how actuarial insights drive decision-making and support long-term sustainability in insurance operations

## Course Content & Outline

### Section 1: Introduction to Actuarial Science in Insurance

- .Definition and scope of actuarial science •
- .The role of actuaries in insurance markets •
- .Overview of insurance mathematics and risk theory •

### Section 2: Probability, Statistics, and Risk Modelling

- .Fundamentals of probability distributions in insurance •
- .Statistical techniques for analysing claims and loss data •

- Risk pooling and the law of large numbers
- Practical exercises in risk modelling

### Section 3: Product Design, Pricing, and Reserving

- Actuarial pricing methods for life, health, and general insurance
- Reserving techniques: incurred but not reported (IBNR), loss development
- Mortality and morbidity tables and their applications
- Case studies of actuarial product design

### Section 4: Solvency, Capital, and Regulation

- Solvency frameworks (Solvency II, RBC models)
- Capital adequacy and risk-based capital requirements
- Regulatory compliance and actuarial responsibilities
- Stress testing and scenario analysis

### Section 5: Emerging Trends and Technology in Actuarial Science

- Predictive analytics and machine learning in actuarial work
- Big data applications in claims and underwriting
- The future role of actuaries in digital transformation
- ESG and sustainability considerations in actuarial practices

## Certificate Description

Holistique Training عند إتمام هذه الدورة التدريبية بنجاح، سيحصل المشاركون على شهادة إتمام التدريب من (e-Certificate) وبالنسبة للذين يحضرون ويكملون الدورة التدريبية عبر الإنترنت، سيتم تزويدهم بشهادة إلكترونية من Holistique Training.

وخدمة اعتماد التطوير المهني (BAC) معتمدة من المجلس البريطاني للتقييم Holistique Training شهادات ISO 29993 أو ISO 21001 أو ISO 9001 كما أنها معتمدة وفق معايير (CPD) المستمر

لهذه الدورة من خلال شهادتنا، وستظهر هذه النقاط على شهادة إتمام (CPD) يتم منح نقاط التطوير المهني المستمر واحدة عن كل ساعة CPD يتم منح نقطة CPD، ووفقاً لمعايير خدمة اعتماد Holistique Training التدريب من لأي دورة واحدة نقدمها حالياً CPD حضور في الدورة. ويمكن المطالبة بحد أقصى قدره 50 نقطة

## Related Articles



### Smart Choices: Overcoming Challenges in Insurance Decisions

Choosing the right insurance involves understanding types, assessing needs, and weighing cost-benefit. Key steps include comparing premiums, deductibles, coverage, and insurer reliability. Avoid pitfalls like underestimating coverage or ignoring policy details. Consult .professionals and consider future needs for optimal protection and peace of mind