

CORE SYLLABUS FOR ACTUARIAL TRAINING IN EUROPE

analysis of questioning of the AAE in 2013/2014

- Data of „ARITHMETIC AVERAGE ROUNDED“ -

General Skills

General Skills

	arithmetic average rounded	estimated standard deviation	arithmetic average runded per group of required skills	estimated standard deviationper group of required skills
General Skills				
Computing	1,60	0,73	1,64	0,86
Regulation and Legislation and Taxation	1,94	0,99		
Communication Skills	1,61	0,84		
Language Skills	1,41	0,77		

General Technical Skills

1. Mathematics

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviationper group of required skills
Mathematics				
(a) Mathematical analysis	1,94	0,74	1,96	0,80
(b) Linear algebra	1,93	0,71		
(c) Numerical analysis	1,77	0,79		
(d) Stochastic calculus	2,20	0,87		

2. Probability and Mathematical Statistics

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Probability and Mathematical Statistics				
(a) Theory of probability and mathematical statistics	2,45	0,77	2,48	0,74
(b) Decision theory	2,38	0,76		
(c) Data analysis	2,54	0,73		
(d) Regression analysis	2,56	0,68		

3. Stochastic Processes and Modelling

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Stochastic Processes and Modelling				
(a) Principles and methods of modelling	2,74	0,51	2,56	0,77
(b) Stochastic processes for insurance and finance	2,84	0,46		
(c) Time series modelling	2,17	1,04		
(d) Simulation methods	2,48	0,74		

4. Economics

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviationper group of required skills
Economics				
(a) Macroeconomics	2,09	0,77		
(b) Microeconomics	2,09	0,90	2,09	0,83

5. Accounting and Financial Reports

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Accounting and Financial Reports				
(a) Accounting principles	2,46	0,56	2,53	0,51
(b) Financial structures of business entities	2,47	0,54		
(c) Basic structure of company accounts	2,59	0,46		
(d) Interpretation of business accounts	2,58	0,47		

6. Legislation

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviationper group of required skills
Legislation				
(a) Supervisory legislation	2,39	0,69		
(b) Financial services laws	2,19	0,79	2,29	0,75

Actuarial Technical Subjects

7. Financial Mathematics

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Financial Mathematics				
(a) Theory of deterministic interest	2,73	0,41	2,75	0,49
(b) Introduction to contingent claims analysis	2,84	0,46		
(c) Stochastic calculus for finance	2,76	0,40		
(d) Theory of stochastic interest	2,74	0,65		
(e) Asset management	2,67	0,45		

8. Multiple State Modelling

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Multiple State Modelling				
(a) Survival models and parameter estimation	2,72	0,55	2,59	0,70
(b) Multiple state models and parameter estimation	2,57	0,75		
(c) Construction of a decrement table	2,59	0,68		
(d) Population characteristics and risk classification	2,46	0,76		

9. Contingencies

	arithmetic average rounded	estimated standard deviation	arithmetic average runded per group of required skills	estimated standard deviationper group of required skills
Contingencies				
(a) Reserving methodology	2,90	0,28	2,86	0,33
(b) Pricing of long term and short term insurance products	2,86	0,33		
(c) Valuation techniques	2,86	0,33		
(d) Analysis of changes in technical results	2,81	0,35		

10. Risk Mathematics

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Risk Mathematics				
(a) Distribution of frequency and severity of claims	2,84	0,46	2,74	0,60
(b) Risk theory	2,90	0,28		
(c) Credibility theory	2,82	0,61		
(d) Dependencies	2,57	0,85		
(e) Generalised linear models	2,59	0,55		

11. Finance and Financial Markets

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Finance and Financial Markets				
(a) Financial markets	2,80	0,38	2,64	0,65
(b) Pricing and valuation of financial products	2,88	0,32		
(c) Corporate finance	2,43	0,89		
(d) Portfolio theory	2,80	0,40		
(e) Economic value and measurement	2,32	0,82		

12. Quantitative Risk Management and Solvency

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Quantitative Risk Management and Solvency				
(a) Risk classification	2,48	0,98	2,39	1,01
(b) Measuring risk	2,48	0,98		
(c) Diversification	2,52	0,98		
(d) Dynamic financial analysis and internal models	2,16	1,09		
(e) Capital requirements	2,33	0,97		

Actuarial Applications

13. Actuarial Enterprise Risk Management

	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Actuarial Enterprise Risk Management				
• The general operating environment of the enterprise	2,13	1,01	2,57	0,73
• Assessment of risks; risk types and risk measures	2,60	0,85		
• Design and pricing of products and/or services	2,74	0,47		
• Determination of assumptions and scenario setting	2,49	0,59		
• Reserving and valuation of liabilities	2,80	0,40		
• Risk mitigation	2,51	0,77		
• Asset Liability Management	2,65	0,68		
• Monitoring the experience and exposure to risk	2,57	0,76		
• Solvency	2,67	0,67		

14. Professionalism

	arithmetic average rounded	estimated standard deviation	arithmetic average runded per group of required skills	estimated standard deviationper group of required skills
Professionalism				
• Conduct standards and discipline	2,28	0,96		
• Professional Standards	2,30	0,96		
• Professionalism and business ethics	2,30	0,96		

Specialisation

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	arithmetic average rounded	estimated standard deviation	arithmetic average rounded per group of required skills	estimated standard deviation per group of required skills
Specialisation				
(a) Deeper studies	1,63	1,33	1,50	1,31
(b) Studies of European and country specific topics	1,35	1,22		
(c) Research	1,37	1,35		
(d) Practical application of principles	1,66	1,30		