

Subject SA3

2025 Study Guide

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1 Introduction

This Study Guide has been created to help you navigate your way through Subject SA3. It contains useful information you will need before starting to study Subject SA3 for the 2025 exams. You may also find it useful to refer to throughout your studies.

Further information on study skills can be found on our website at [ActEd.co.uk](https://www.acted.co.uk).

Please read this Study Guide carefully before reading the Course Notes, even if you have studied for some actuarial exams before.

Before you start

When studying for the Institute and Faculty of Actuaries' exams, you may need:

- a copy of the **Formulae and Tables for Examinations of the Institute and Faculty of Actuaries, 2nd Edition (2002)** – these are referred to simply as the *Tables*
- a **scientific calculator** and/or **software package** to help with calculations.

The *Tables* are available from the Institute and Faculty of Actuaries' eShop. Please visit [actuaries.org.uk](https://www.actuaries.org.uk).

2 Subject SA3 – background and contents

2.1 Links to other subjects

Fellowship Qualification

General Insurance Reserving and Capital Modelling Specialist Principles (SP7), General Insurance Pricing Specialist Principles (SP8) and General Insurance Specialist Advanced (SA3) are a trio of subjects for actuarial work specific to General Insurance. Each subject develops a specific set of skills and knowledge needed by actuaries working in or who wish to work in General insurance. The subjects are related as follows:

- General Insurance Reserving and Capital Modelling Specialist Principles (Subject SP7) covers relevant actuarial principles and techniques for reserving and capital modelling within general insurance companies, and how these link to other business processes such as data, business planning, pricing, reinsurance and investment.
- General Insurance Pricing Specialist Principles (Subject SP8) covers relevant actuarial principles and techniques for pricing of general insurance and reinsurance products, and how these link to other business processes such as data, risk management, business planning, reserving, capital setting, reinsurance and catastrophe modelling.
- General Insurance Advanced (Subject SA3) builds upon the skills and knowledge covered in Subjects SP7 and SP8, applied to more complex scenarios. It covers general insurance markets, regulation, legislation, taxation, financial management, monitoring and strategies.

2.2 Subject contents

There are six parts to the Subject SA3 course. The parts cover related topics and are broken down into chapters. At the end of each part there is an assignment testing the material from that part.

The following table shows how the parts and chapters relate to each other. The final column shows how the chapters relate to the days of the regular tutorials. This table should help you plan your progress across the study session.

Part	Chapter	Title	No of pages	X Assignment	Tutorial – 3 days
1	1	Introduction to Subject SA3	9	X1	1
	2	The general insurance market	47		
	3	Taxation	22		
2	4	Legislation	74	X2	
	5	Professional guidance	19		
3	6	Pricing large commercial risks	38	X3	2
	7	Catastrophe models	44		
4	8	Return on capital	22	X4	
	9	Valuation bases	50		
	10	Financial planning	26		
5	11	Latent and disease claims	37	X5	3
	12	Exit strategies	39		
6	13	Problem solving	30	X6	
	14	Case study 1 – reserving	22		
	15	Case study 2 – reinsurance	24		
	16	Case study 3 – strategic decision-making	15		
	17	Further reading	23		
		Principal terms	43		
		Decision-making tools appendix	16		
	Insurance products appendix	71			

3 Syllabus

The Syllabus for each subject is produced by the Institute and Faculty of Actuaries. It includes information to support the study of this subject. The Syllabus will guide you through what you need to learn, the application of learning, as well as the skills that you need to develop.

Students can use the Syllabus as a guide for learning and development. We recommend that you use the Syllabus as an important part of your study.

3.1 Aim

The aim of Subject SA3 is to apply relevant actuarial principles and techniques to complex scenarios concerning the management of general insurance companies, taking into account relevant regulatory, legislative and professional requirements.

3.2 Topics and topic weightings

This subject covers the following topics:

1. General insurance markets, catastrophe modelling and emerging risks (35%)
2. Regulatory, legislative and taxation environment (10%)
3. Reserving, pricing, capital modelling and reinsurance (30%)
4. Financial management, monitoring and strategies (25%)

The topic weighting percentage noted alongside the topics is indicative of the volume of content of a topic within the subject and therefore broadly aligned to the volume of marks allocated to this topic in the examination. For example, if a topic is 20% of the subject then you can expect that approximately 20% of the total marks available in the examination paper will be available on that topic.

Students should ensure that they are well prepared across the entire syllabus and have an understanding of the principal terms used within the course.

Students will be expected to be able to apply knowledge and skills from across the syllabus topics to scenarios and questions proposed by the examiners and produce coherent solutions and actions, including:

- analysing complex problems in terms of actuarial, economic and financial factors to a level where appropriate analytical techniques may be used
- assessing the implications and relevance of such factors, integrating the results into a coherent whole
- evaluating the results critically in a wider context, drawing appropriate conclusions
- proposing solutions and actions, or a range of possible solutions and actions, based on this evaluation.

3.3 Objectives

The detailed syllabus objectives for Subject SA3 are given below. To the right of each objective are the chapter numbers in which the objective is covered in the ActEd course. The relevant individual syllabus objectives are also included at the start of each course chapter.

1. **General insurance markets, catastrophe modelling and emerging risks:** (35%)

Understand the main features of general insurance markets, including Lloyd's and special aspects of pricing including catastrophe modelling, annuities in non-life insurance and emerging risks.

 - 1.1 The main features of general insurance markets. (Chapter 2)
 - 1.2 The key features of the Lloyd's market. (Chapter 2)
 - 1.3 Special aspects of pricing including catastrophe modelling.
 - 1.3.1 Considerations when pricing large commercial risks. (Chapter 6)
 - 1.3.2 Alternative rating approaches for large commercial risks. (Chapter 6)
 - 1.3.3 Incorporating return on capital in the calculation of premium rates. (Chapter 8)
 - 1.3.4 Difference between catastrophe modelling and traditional actuarial rating methods. (Chapter 7)
 - 1.3.5 Generic structure of a catastrophe model, including:
 - key perils modelled
 - key uses of output of catastrophe models
 - key considerations when using the output of catastrophe models
 - non-modelled catastrophe. (Chapter 7)
 - 1.4 Considerations of climate change on pricing and catastrophe modelling. (Chapters 4, 7 and 11)
 - 1.5 Actuarial features of annuities in non-life insurance (also known as Periodic Payment Orders). (Chapter 2)
 - 1.6 Emerging risks and disrupters and their impact on the general insurance market. (Chapter 11)

2. Regulatory, legislative and taxation environment: (10%)

Understand the key aspects of regulation, legislation and taxation as applicable to general insurance companies.

- 2.1 Solvency II regulatory framework and its application to general insurance:
- background and scope
 - structure
 - Pillar 2 governance requirements
 - Pillar 3 disclosure and reporting requirements
 - group reporting requirements. (Chapter 4)
- 2.2 Regulatory regime in place in Lloyd's. (Chapter 4)
- 2.3 Impact of consumer protection and equality legislation on general insurance business. (Chapter 4)
- 2.4 Impact of taxation on the operations of a general insurance business and for their policyholders, including mutual and proprietary insurers and Lloyd's syndicates and their members. (Chapter 3)
- 2.5 Regulatory framework for the general insurance industry and its implementation within general insurance companies, including: (Chapters 4 and 12)
- objectives of regulators
 - supervisory tools, including rulebooks and reporting requirements
 - statutory actuarial roles
 - transfer of liabilities between companies.
- 2.6 Requirements of actuarial standards for actuaries practising in or advising general insurance companies. (Chapter 5)

3. **Reserving, capital modelling and reinsurance:** (30%)

Understand reserving bases, reserving for latent claims and the effect on reserving and capital of the commercial and regulatory environment.

3.1 Appropriate bases to value insurance liabilities of a general insurer to produce:

- annual accounting and statutory returns, including under IFRS 17
- management accounts. (Chapter 9)

3.2 Reserving techniques for latent claims and disease claims. (Chapter 11)

3.3 Impacts of the commercial and regulatory environment on reserving and capital. (Chapter 4)

4. **Financial management, monitoring and strategies:** (25%)

Understand the functions of financial planning including modelling and portfolio transfers.

4.1 The function of financial planning in the management of a general insurance business and create appropriate financial strategies. (Chapter 10)

4.2 Appropriate financial planning models to enable a general insurer to develop and monitor its objectives at either the corporate or product level. (Chapter 10)

4.3 Reasons for transferring a portfolio of business and appropriateness of approaches. (Chapter 12)

4 Core Reading

This section explains the role of the Core Reading and how it links to the Syllabus, supplementary ActEd text and the examination.

4.1 Core Reading

The Core Reading has been produced by the Institute and Faculty of Actuaries. It supports students in their learning and development of this subject by providing information and explanation of the topics and objectives in the Syllabus.

The Core Reading is updated annually to reflect any changes to the Syllabus and current practice, as well as for continuous improvement.

The current version of the Core Reading is up-to-date as of 31 May 2024. It references the version of any legislation, standards, professional guidance, *etc* as of this date. Any known upcoming changes to the references are noted where relevant in the Core Reading.

The United Kingdom left the European Union on 1 January 2021 without an EU-wide arrangement for the operation and regulation of financial services and this continues to be the situation. This version of the Core Reading reflects the situation as of 31 May 2024.

Accreditation

The Institute and Faculty of Actuaries would like to thank the numerous people who have helped in the development of the material contained in the Core Reading.

Further reading

A list of additional resources to support candidate learning and development for this subject can be found on the Module pages on the Institute and Faculty of Actuaries' website:

actuaries.org.uk/curriculum/

4.2 Links to the Syllabus

Each part of the Core Reading relates directly to the Syllabus.

The relevant syllabus objectives are included at the start of each chapter for reference.

The Core Reading supports coverage of the Syllabus in helping to ensure that both depth and breadth are re-enforced.

4.3 Links to the examination

Examiners can set questions based on any area of the Syllabus within any examination sitting and will consider and draw from the Core Reading when setting examinations questions.

Students will be expected to apply the Core Reading to scenarios and questions proposed by the examiners.

The exams in April and September 2025 will be based on the Syllabus and Core Reading as at 31 May 2024. We recommend that you always use the up-to-date Core Reading to prepare for the exams.

Past papers indicate to students how the examiners apply the Core Reading. The Examiners' Reports provide further insight as to how students answered the questions and how marks were awarded.

4.4 ActEd text

The Core Reading deals with each syllabus objective and covers what is needed to pass the exam, and the Subject SPX Course Notes include the Core Reading in full, integrated throughout the course.

However, the tuition material that has been written by ActEd enhances it by giving examples and further explanation of key points. Here is an excerpt from some ActEd Course Notes to show you how to identify Core Reading and the ActEd material. **Core Reading is shown in this bold font.**

In the example given above, the index *will* fall if the actual share price goes below the theoretical ex-rights share price. Again, this is consistent with what would happen to an underlying portfolio.

After allowing for chain-linking, the formula for the investment index then becomes:

$$I(t) = \frac{\sum_i N_{i,t} P_{i,t}}{B(t)}$$

where $N_{i,t}$ is the number of shares issued for the i th constituent at time t ;

$B(t)$ is the base value, or divisor, at time t .

This is ActEd text

This is Core Reading

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Legal action will be taken if these terms are infringed. In addition, we may seek to take disciplinary action through the Institute and Faculty of Actuaries or through your employer.

These conditions remain in force after you have finished using the course.

5 Skills and assessment

5.1 Exam skills

In each examination, students will be expected to demonstrate, through their answers, that they have knowledge of, can apply and use higher order skills in this subject:

- Knowledge will be demonstrated through answering questions that assess understanding of that knowledge as well as through questions that ask for the application of relevant knowledge to scenarios.
- Application will be demonstrated through answering questions that assess the ability to identify and apply relevant concepts and skills to solve problems (both numerical and non-numerical).
- Higher order skills will be demonstrated through questions that will assess the ability to use relevant knowledge, concepts and skills to solve problems, draw appropriate conclusions, and make meaningful and appropriate comments on those conclusions.

In Subject SA3, the approximate split of assessment across the three skill types is:

- Knowledge – 15%
- Application – 60%
- Higher Order skills – 25%.

The Institute and Faculty of Actuaries use command verbs (such as 'Define', 'Discuss' and 'Explain') to help students to identify what the question requires. The examination can be composed of questions drawing from any part of the syllabus and using any command verb.

The Institute and Faculty of Actuaries has produced guidance on 'Command verbs used in the Associate and Fellowship examinations', to help students to understand what each command verb is asking them to do.

You can find the relevant document on the Institute and Faculty of Actuaries' website at:

actuaries.org.uk/qualify/prepare-for-your-exams

5.2 Assessment

Assessment will consist of one 3 hour 20 minute timed, online examination. This time includes reading time, as well as the time taken for students to download and/or print the question paper.

Students can expect to answer a number of questions of varying marks, using Microsoft Word to construct and type their answers.

5.3 Further information

The Institute and Faculty of Actuaries has produced a number of documents, which it advises students to read and understand. In particular, the:

- Qualification Handbook, which contains information on studying and preparing for exams, as well as available support and resources
- Examinations Handbook, which contains practical assistance on how to sit an Institute and Faculty of Actuaries' examination
- Assessment Regulations document, which includes rules on eligibility, entry and conduct during an online assessment.

The Qualification Handbook can be found at:

actuaries.org.uk/qualify/student-and-associate-exam-news/qualification-handbook

The Examinations Handbook and Assessment Regulations document can be found at:

actuaries.org.uk/qualify/my-exams/ifoa-exams

IMPORTANT NOTE: These documents may be updated and re-published in the weeks leading up to each exam session. It is important that you keep up-to-date with any changes and developments.

6 ActEd study support

An overview of ActEd's products and services, and guidance on how to choose the best ones for you, can be found on our website at [ActEd.co.uk/productguide](https://www.acted.co.uk/productguide).

6.1 Summary of ActEd products and services

Detailed descriptions of all ActEd's products and services can be found on our website at [ActEd.co.uk](https://www.acted.co.uk). However, the specific products and services available for Subject SA3 include:

- Course Notes
- X Assignments – six 100-mark tests (you are allowed 3¼ hours to complete these)
- Series X Marking
- Flashcards
- ASET (2020-23 papers) – four years of exam papers, *ie* eight sittings, covering the period April 2020 to September 2023
- Mini ASET – covering the April 2024 exam paper
- Mock Exam – one 100-mark test
- Additional Mock Pack (AMP) – two additional 100-mark tests
- Mock Exam Marking
- Marking Vouchers.

Products are generally available in both paper and eBook format. Visit [ActEd.co.uk](https://www.acted.co.uk) for full details about available eBooks, software requirements and restrictions.

6.2 Tuition

The following tutorials are typically available for Subject SA3:

- Regular Tutorials (three full days / six half days)
- Block Tutorials (three days).

Tutorials are typically available both face-to-face and live online.

Full details are set out in our *Tuition Bulletin*, which is available on our website at [ActEd.co.uk](https://www.acted.co.uk).

6.3 Questions and queries

From time to time you may come across something in the study material that is unclear to you.

Our online discussion forum at [ActEd.co.uk/forums](https://www.acted.co.uk/forums) (or use the link from our home page at [ActEd.co.uk](https://www.acted.co.uk)) is dedicated to actuarial students so that you can get help from fellow students on any aspect of your studies from technical issues to study advice. ActEd tutors visit the site regularly to ensure that you are not being led astray and we also post other frequently asked questions from students on the forum as they arise.

If you are still stuck, then you can send queries by email to the Subject SA3 email address **SA3@bpp.com**, but we recommend that you try the forum first. We will endeavour to contact you as soon as possible after receiving your query but you should be aware that it may take some time to reply to queries, particularly when tutors are running tutorials. At the busiest teaching times of year, it may take us more than a week to get back to you.

If you have many queries on the course material, you should raise them at a tutorial or book a personal tuition session with an ActEd tutor. Please email **ActEd@bpp.com** for more details.

6.4 Feedback

If you find an error in the course, please check the corrections page of our website (**ActEd.co.uk/paper_corrections.html**) to see if the correction has already been dealt with. Otherwise, please send the details via email to the Subject SA3 email address **SA3@bpp.com**. Our tutors work hard to ensure that the courses are as clear as possible and free from errors.

ActEd also works with the Institute and Faculty of Actuaries to suggest developments and improvements to the Syllabus and Core Reading. If you have any comments or concerns about the Syllabus or Core Reading, these can be passed on via ActEd. Alternatively, you can send them directly to the Institute and Faculty of Actuaries' Examination Team by email to **memberservices@actuaries.org.uk**.

7 General information and support

7.1 Safeguarding

We want you to feel comfortable within our learning environment and safe in the knowledge that if you ever needed support, you know where to go.

If you need support, please contact BPP's Safeguarding team at safeguarding@bpp.com or for urgent concerns call 07464 542 636.

Additional information can be found at ActEd.co.uk/learningsupport.

7.2 BPP learning support

BPP's Learning Support team offers a wide range of support for all students who disclose a learning difficulty or disability. This support is accessible to all ActEd students free of charge.

Please contact BPP's Learning Support team at LearningSupport@bpp.com for more information.

Additional information can be found at ActEd.co.uk/learningsupport.

7.3 The Prevent Duty

The Prevent Duty is to protect people from radicalisation and being drawn into extremist views and terrorism. As a Government-regulated training provider, ActEd has a duty to ensure that our learners are well informed and stay safe, and to empower our students to know what to look for and when to report concerns.

Please report any concerns to a tutor or email safeguarding@bpp.com or for urgent concerns call 07464 542 636.

More information is available at:

- ActEd.co.uk/learningsupport
- officeforstudents.org.uk/advice-and-guidance/student-wellbeing-and-protection/counter-terrorism-the-prevent-duty/