

# Subject CP2

## 2025 Study Guide

### Contents

|           |                                 |         |
|-----------|---------------------------------|---------|
| Section 1 | Introduction                    | Page 1  |
| Section 2 | Subject sequencing and contents | Page 3  |
| Section 3 | Syllabus                        | Page 4  |
| Section 4 | Skills and assessment           | Page 7  |
| Section 5 | ActEd study support             | Page 9  |
| Section 6 | General support and information | Page 11 |

## 1 Introduction

This Study Guide has been created to help you navigate your way through Subject CP2. It contains all the information you will need before starting to study Subject CP2 for the 2025 exams and 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 CP2 – background and contents

### 2.1 Links to other subjects

#### Associateship Qualification

In the assessment of this subject, students will use techniques and apply concepts developed in Subjects CM1, CM2, CS1, and CS2 as well as application of Subject CP1 principles.

### 2.2 Subject contents

There are three parts to the Subject CP2 course. The parts cover related topics and are broken down into chapters. At the end of every other part there is an assignment testing the material from that part.

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

| Part | Chapter | Title                       | No of pages | X Assignment |
|------|---------|-----------------------------|-------------|--------------|
| 1    | 1       | Analysing data              | 14          | X1           |
|      | 2       | Developing a model          | 14          |              |
| 2    | 3       | Creating an audit trail     | 15          | X2           |
|      | 4       | Creating a summary document | 21          |              |
|      | 5       | Presenting results          | 16          |              |
| 3    | 6       | Using Excel                 | 37          | X3           |
|      | 7       | Using Word                  | 11          |              |
|      | 8       | Exam technique              | 8           |              |
|      | 9       | Worked example Paper 1      | 24          |              |
|      | 10      | Worked example Paper 2      | 23          |              |

## 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 CP2 is to understand and apply the critical steps to model data, document the work, create and maintain an audit trail, analyse the methods used and outputs generated and effectively communicate to colleagues the approach, results and conclusions.

### 3.2 Topics and topic weightings

This subject covers the following topics:

- |    |  |       |
|----|--|-------|
| 1. | Preparation and analysis of data         | (10%) |
| 2. | Development of a model                   | (20%) |
| 3. | Model testing                            | (5%)  |
| 4. | Documentation                            | (45%) |
| 5. | Communication of results and conclusions | (10%) |
| 6. | Next steps                               | (10%) |

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.

### 3.3 Objectives

The detailed syllabus objectives for Subject CP2 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.  | Preparation and analysis of data (10%)  | (Chapter 1) |
| 1.1 | Use appropriate tools for cleaning, restructuring and transforming data to make it suitable for analysis. |             |
| 1.2 | Summarise data using appropriate analysis, descriptive statistics and graphical representation.           |             |
| 1.3 | Select and carry out appropriate statistical tests of reasonableness.                                     |             |

- 1.4 Make appropriate assumptions about the data provided.
- 1.5 Repair corrupt or missing data.
2. Development of a model with clear documentation (20%) (Chapters 2 and 5)
  - 2.1 Plan and produce a spreadsheet model to solve a specified problem.
  - 2.2 Create appropriate charts to support visual interpretation of the results.
3. Model testing (5%) (Chapter 2)
  - 3.1 Perform checks on the intermediate and final results of a model.
  - 3.2 Comment on the reasonableness of the results under different scenarios.
4. Documentation (45%) (Chapters 3 and 4)
  - 4.1 Create a clear audit trail, which could be followed by a senior actuary and would enable the model to be worked on and corrected by a fellow student and includes:
    - key assumptions
    - description of data and model checks
    - methodology
    - reasonableness checks.
  - 4.2 Draft a clear summary of the model and the results for a senior actuary to include:
    - the data
    - assumptions
    - approach taken
    - results
    - conclusions
    - suggested next steps to develop the model.
5. Communication of results and conclusions (10%) (Chapter 4)
  - 5.1 Provide commentary on the results from a model appropriate for the target audience. This should cover, but not be limited to:
    - analytical comments on each stage of the results, including explaining patterns in the results and any unusual features
    - an explanation of the differences between the results under the various strategies modelled.

## 6 Next steps (10%) (Chapter 4)

- 6.1 Identify possible next steps for the client having taken into consideration the initial modelling and the results, including:
- possible enhancements to the model
  - additional modelling to provide additional information to support the project's objectives.

### 3.4 Background Reading

There is no Core Reading for Subject CP2. However, the Institute and Faculty of Actuaries produce background reading for this subject, which can be found in *A Guide to CP2 Modelling Practice* available on the IFoA website:

**[actuaries.org.uk/qualify/curriculum/modelling-practice/](https://actuaries.org.uk/qualify/curriculum/modelling-practice/)**

Students should ensure that they have read and understood the background reading before their CP2 examination. This is important as there can be changes made to the background reading after the Course Notes are published.

*A Guide to CP2 Modelling Practice* also includes more detailed information relating to the CP2 exam, including the objectives and format of the exam.

### 3.5 Copyright

All study material produced by ActEd is copyright and is sold for the exclusive use of the purchaser. The copyright is owned by Institute and Faculty Education Limited, a subsidiary of the Institute and Faculty of Actuaries. Unless prior authority is granted by ActEd, you may not hire out, lend, give out, sell, store or transmit electronically or photocopy any part of the study material. You must take care of your study material to ensure that it is not used or copied by anybody else.

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.

## 4 Skills and assessment

### 4.1 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 CP2, the approximate split of assessment across the three skill types is:

- 5% knowledge
- 80% application
- 15% higher order skills.

The Institute and Faculty of Actuaries uses 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](https://actuaries.org.uk/qualify/prepare-for-your-exams)**

### 4.2 Assessment

Assessment is in the form of two 3 hour 20 minute timed, online examinations:

- Paper 1 will ask you to consider a scenario and data, complete a data analysis, create a model and provide an audit trail
- Paper 2 will ask you to consider a model that has already been produced, carry out some additional modelling, analyse the methods used and the outputs, apply and interpret the results, and communicate the approach, results and conclusions.

This includes reading time, as well as the time taken for students to download and/or print the question paper.

In order to pass this subject, both Paper 1 and Paper 2 must be sat within the same sitting, and a combined mark of a pass achieved.

### 4.3 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](https://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/ifo-exams](https://actuaries.org.uk/qualify/my-exams/ifo-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.**

## 5 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).

### 5.1 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 CP2 include:

- Course Notes
- X Assignments – three assignments:
  - Assignment X1 focuses on the Excel aspects of CP2 (you are allowed 1¼ hours to complete this)
  - Assignment X2 focuses on the audit trail and charts (you are allowed 1¼ hours to complete this)
  - Assignment X3 is similar to a CP2 Paper 2 exam (you are allowed 3¼ hours to complete this).
- Series X Marking
- Online Classroom
- 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 – two 100-mark tests (Paper 1 and Paper 2)
- Additional Mock Pack (AMP) – two additional 100-mark Paper 1 tests and two additional 100-mark Paper 2 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.

### 5.2 Tuition

We offer a one-day Tutorial for Subject CP2.

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).



### 5.3 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** (or use the link from our home page at **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 CP2 email address **CP2@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.

### 5.4 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 CP2 email address **CP2@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**.

## 6 General information and support

### 6.1 Safeguarding

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

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

Additional information can be found at [ActEd.co.uk/learningsupport](https://ActEd.co.uk/learningsupport).

### 6.2 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](mailto:LearningSupport@bpp.com) for more information.

Additional information can be found at [ActEd.co.uk/learningsupport](https://ActEd.co.uk/learningsupport).

### 6.3 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](mailto:safeguarding@bpp.com) or for urgent concerns call 07464 542 636.

More information is available at:

- [ActEd.co.uk/learningsupport](https://ActEd.co.uk/learningsupport)
- [officeforstudents.org.uk/advice-and-guidance/student-wellbeing-and-protection/counter-terrorism-the-prevent-duty/](https://officeforstudents.org.uk/advice-and-guidance/student-wellbeing-and-protection/counter-terrorism-the-prevent-duty/)