



# Curriculum 2019

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# Why is the IFoA launching a new curriculum?

The employment opportunities available for those with an actuarial skill set continue to develop and grow, in some cases outside the traditional areas.

As a professional body the Institute and Faculty of Actuaries (IFoA) has a responsibility to ensure that the curriculum is relevant, up-to-date and reflects the skills, knowledge and attributes required of actuaries in an ever-changing global business environment.

At the same time the IFoA, as a full member of the International Actuarial Association (IAA), must ensure that its curriculum reflects the international standards set by them. This we have done by ensuring that the core subjects align themselves to the agreed 2017 IAA syllabus.

Definitive core reading and sample examination papers for Curriculum 2019 will be available to all students in June 2018.





# The 2019 Curriculum

The actuarial qualification contains three fundamental components, and these will not change.

They are the examinations, professionalism and practical experience gained in the workplace. Whether you are aiming to qualify as an Associate or Fellow, you will need to complete all these components.

There have been changes to the names we are using for the Curriculum 2019 groups of subjects. These are shown below:





# Core Principles

## General Structure

The Core Principles cover three main areas. These are:

- **Actuarial Statistics (CS)**
- **Actuarial Mathematics (CM)**
- **Business (CB).**

Within each module area there are a number of subjects shown opposite.

Actuarial Statistics (CS)	Actuarial Mathematics (CM)	Business (CB)
Actuarial Statistics (CS1)	Actuarial Mathematics (CM1)	Business Finance (CB1)
Risk Modelling and Survival Analysis (CS2)	Financial Engineering and Loss Reserving (CM2)	Business Economics (CB2)
		Business Management (CB3)

The Core Principles therefore comprises seven subjects.

## Assessments

All Core Principle subjects will be assessed. Actuarial Statistics and Actuarial Mathematics have two elements of assessment. For each subject there will be a 3 hours 15 minutes written paper and a 1 hour 45 minutes problem-based assessment. For these subjects both elements of assessment must be taken at the same examination sitting. The two papers will be weighted (70% for the written paper and 30% for the problem based assessment). A single aggregate mark will then be calculated. Failure to reach the overall pass mark will require both elements of assessment to be retaken. The problem-based assessments will be computer based and taken at home or in your office.

## Assessment Plan

Module	Assessment	Notes
CS1	Two elements of assessment: <ul style="list-style-type: none"> <li>• 3 hours 15 minutes paper-based assessment</li> <li>• 1 hour 45 minutes problem-based assessment</li> </ul>	<p>Taken in an examination centre</p> <p>Computer-based, using 'R' (taken at home or in your office)</p> <p><b>Both elements need to be taken at the same examination sitting</b></p>
CS2	Two elements of assessment: <ul style="list-style-type: none"> <li>• 3 hours 15 minutes paper-based assessment</li> <li>• 1 hour 45 minutes problem-based assessment</li> </ul>	<p>Taken in an examination centre</p> <p>Computer-based, using 'R' (taken at home or in your office)</p> <p><b>Both elements need to be taken at the same examination sitting</b></p>

CM1	<p>Two elements of assessment:</p> <ul style="list-style-type: none"> <li>• 3 hours 15 minutes paper-based assessment</li> <li>• 1 hour 45 minutes problem-based assessment</li> </ul>	<p>Taken in an examination centre</p> <p>Computer-based, using Excel (taken at home or in the office)</p> <p><b>Both elements need to be taken at the same examination sitting</b></p>
CM2	<p>Two elements of assessment:</p> <ul style="list-style-type: none"> <li>• 3 hours 15 minutes paper-based assessment</li> <li>• 1 hour 45 minutes problem-based assessment</li> </ul>	<p>Taken in an examination centre</p> <p>Computer-based, using Excel (taken at home or in the office)</p> <p><b>Both elements need to be taken at the same examination sitting</b></p>
CB1	3 hours 15 minutes paper-based assessment	Taken in an examination centre
CB2	3 hours 15 minutes paper-based assessment	Taken in an examination centre
CB3	Online Test	Taken at home or in the office

# Core Practices



The Core Practices cover three areas. These are:

- **Actuarial Practice (CP1)**
- **Modelling Practice (CP2)**
- **Communications Practice (CP3).**

## Assessments

All three will be assessed using written and computer-based examinations. For CP1 and CP2 there will be two elements of assessment for each module. Each assessment carries equal weighting. A single aggregate mark will then be calculated. Failure to reach the overall pass mark will require both elements of assessments to be retaken. For CP3 there will be a single paper.

## Assessment Plan (Core Practices)

Module	Assessment	Notes
CP1	Two elements of assessment: <ul style="list-style-type: none"><li>• <b>Paper 1:</b> 3 hours 15 minutes paper-based assessment</li><li>• <b>Paper 2:</b> Planning time 45 minutes, followed by a 2 hours 30 minutes paper-based assessment</li></ul>	Taken in an examination centre Both elements need to be taken at the same examination sitting Taken in an examination centre
CP2	Two elements of assessment: <ul style="list-style-type: none"><li>• <b>Paper 1:</b> 3 hours 15 minutes problem-based assessment</li><li>• <b>Paper 2:</b> 3 hours 15 minutes problem-based assessment</li></ul>	Taken at home or in the office Both elements need to be taken at the same examination sitting Taken at home or in the office
CP3	Two elements of assessment: <ul style="list-style-type: none"><li>• 3 hours paper-based assessment</li></ul>	Taken at home or in the office Computer-based, using Word



# Specialist Principles

The Specialist Principles (SP) modules require individuals to demonstrate an understanding of the concepts of specific specialist areas.

Each module will be assessed using a 3 hours and 15 minutes paper-based examination. These will be taken in an examination centre. Those who have obtained an alternative qualification have the option of applying for module SPO. This is normally through a Level 7, Master's Thesis in an actuarially relevant subject.

The Specialist Principle modules are:

**SPO:** Master's Level Thesis

**SP1:** Health and Care

**SP2:** Life Insurance

**SP4:** Pensions

**SP5:** Investment and Finance

**SP6:** Financial Derivatives

**SP7:** General Insurance: Reserving

**SP8:** General Insurance Pricing

**SP9:** Enterprise Risk Management

Two of these SP modules have to be passed to be eligible to qualify as a Fellow. You do not need to take any SP subjects to qualify as an Associate.

# Specialist Advanced



The Specialist Advanced (SA) modules require individuals to apply specific knowledge and principles of actuarial practice to the provision of specific practice areas.

Modules SA1 – SA7 will be assessed using a 3 hours and 15 minutes paper-based examination. These will be taken in an examination centre. Those who are planning to undertake some original research on an actuarial topic can apply to take the SA0 route. The research should be at MPhil or PHD level and is likely to require at least 2 years of study. The IFoA must be involved from the start of the project and agree the objectives of the research.

The Specialist Principle modules are:

- SA0:** Research Master's Thesis
- SA1:** Health and Care
- SA2:** Life Insurance
- SA3:** General Insurance
- SA4:** Pensions
- SA7:** Investment and Finance

One of these subjects has to be passed to be eligible to qualify as a Fellow. You do not need to take any SA subjects to qualify as an Associate.



# Professionalism



Throughout their career as an actuary, individuals are expected to act within the framework of the Actuaries' Code.

The principles of which are:

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<b>Integrity</b>	Members will act honestly and with the highest standards of integrity.
<b>Competence and Care</b>	Members will perform their professional duties competently and with care.
<b>Impartiality</b>	Members will not allow bias, conflicts of interest, or the undue influence of others to override their professional judgement.
<b>Compliance</b>	Members will comply with all relevant, legal, regulatory and professional requirements, take reasonable steps to ensure they are not placed in a position where they are unable to comply and will challenge non-compliance by others.
<b>Communication</b>	Members will communicate effectively and meet all applicable reporting standards.

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To help members develop their understanding of how to apply this code in practice, the IFoA has developed different stages which need to be completed.

For students these are:

## **Stage 1: Online Professional Awareness Test (OPAT)**

This is a 90 minute, mainly knowledge based, multiple choice online exam, which it is recommended you sit within your first year of membership.

## **Stage 2: Professional Skills Course (PSC)**

This is an online course which continues the development of professionalism through case-study discussion. These discussions explore the concepts of professionalism and business ethics. They also provide an opportunity to demonstrate judgement and decision making to resolve issues.



# Personal and Professional Development (PPD)

As part of the journey to become a qualified member of the IFoA, an individual needs to demonstrate they have the relevant skills and experience within a work environment.

To do this, the IFoA requires PPD to be completed in addition to the examinations and professionalism requirements.

The PPD requirement includes three categories, subdivided into key competencies, which will carry a credit value. All credits will be recorded online and there will be a minimum annual requirement for each qualification route.

The PPD requirement will align with the CPD scheme which all members need to adhere to when qualified.

The three key categories of PPD are:

- **Effective Communications**
- **Problem Solving and Decision Making**
- **Professionalism.**

PPD was introduced in September 2017 and replaces Work Based Skills (WBS).

Full details and transition arrangements can be found at:

<https://www.actuaries.org.uk/studying/personal-and-professional-development-ppd>





# Transfer Guidelines

## from the existing curriculum to Curriculum 2019

In preparing these transfer arrangements a number of general principles have been taken into consideration.

These are:

- All subjects in the current curriculum transfer onto a subject in the new curriculum
- The IFoA aims, wherever possible, to achieve a situation where there will be no increase in the number of study or examination hours
- Subject to the transfer rules below, all passes and exemptions that you already have will be transferred over to the new curriculum
- The change in curriculum will not create a situation where anyone is granted further passes or exemptions than they have already achieved
- The change in the curriculum will not create a situation where anyone will qualify as a direct result of the changes made
- The eligibility criteria (the requirement to have a pass or exemption in one subject before being able to attempt another) will be removed for all exams.

### Transfer Rules

In order to obtain a pass in an exam in Curriculum 2019 you must obtain exam passes in the applicable subjects in the current curriculum by 31 December 2018.

The exemptions process will continue in the new exam structure. For exemptions from examinations in Curriculum 2019 you must have applied for and been granted an exemption from the applicable subjects in the current curriculum by 31 December 2023.

**If an exam in the Curriculum 2019 has two applicable subjects in the current curriculum you will need to obtain passes or exemptions in both of these to be able to obtain a pass or exemption in the new subject. This applies to CT1, CT4, CT5 and CT6. If you have a pass or exemption in only one of these applicable subjects by the time the deadlines have passed you will need to sit the subject as a whole.**



# Transferring

## from Core Technical to Core Principles

### Actuarial Statistics (CS1 and CS2)

The subjects covered in CS1 and CS2 cover content previously in the existing CT3, CT4 and CT6.

CS1 covers CT3. CS2 covers CT4 and CT6. You will need to have passed or been granted an exemption from both CT4 and CT6 to be eligible for a pass in CS2.

### Actuarial Mathematics (CM1 and CM2)

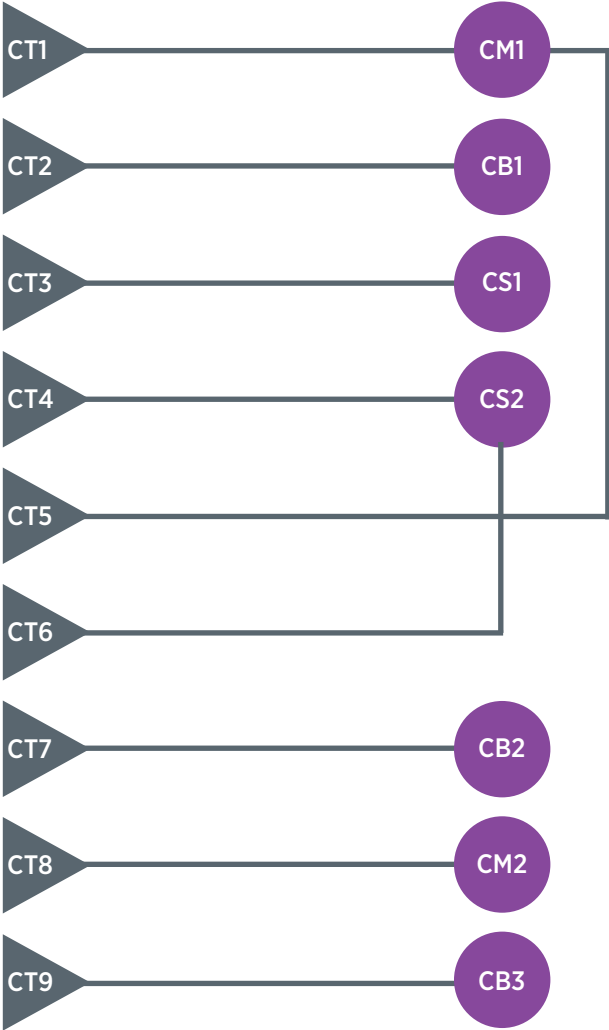
The subjects covered in CM1 and CM2 cover content previously in the existing CT1, CT5 and CT8.

CM1 covers subject CT1 and CT5, and CM2 covers CT8. You will need to have passed or been granted an exemption from both CT1 and CT5 to be eligible for a pass in CM1.

### Business (CB1, CB2 and CB3)

The subjects covered in the business modules CB1, CB2 and CB3 cover content previously in the subjects CT2, CT7 and CT9.

CB1 covers subject CT2. CB2 covers subject CT7 and CB3 covers CT9.





# Transferring

## from Core Applications (CA) to Core Practices

### Actuarial Practice (CP1)

The module Actuarial Practice covers the content of CA1.

It will be examined by two paper-based examinations. The first examination will contain questions requiring short answers. The second will have a planning time of 45 minutes and a writing period of 2 hours and 30 minutes. This examination will contain longer case study type questions.

### Modelling Practice (CP2)

The module Modelling Practice (CP2) covers the content of CA2.

There is additional material, in the form of data analytics, and this module will be assessed using two 3 hour computer-based examinations.

### Communication Practice (CP3)

The new format for CP3 was launched in September 2017. Full details, including the new presentation element which is now part of PPD, can be found at:

<https://www.actuaries.org.uk/studying/curriculum-2019/communications-practice>

<https://www.actuaries.org.uk/studying/personal-and-professional-development-ppd/ppd-presentation>





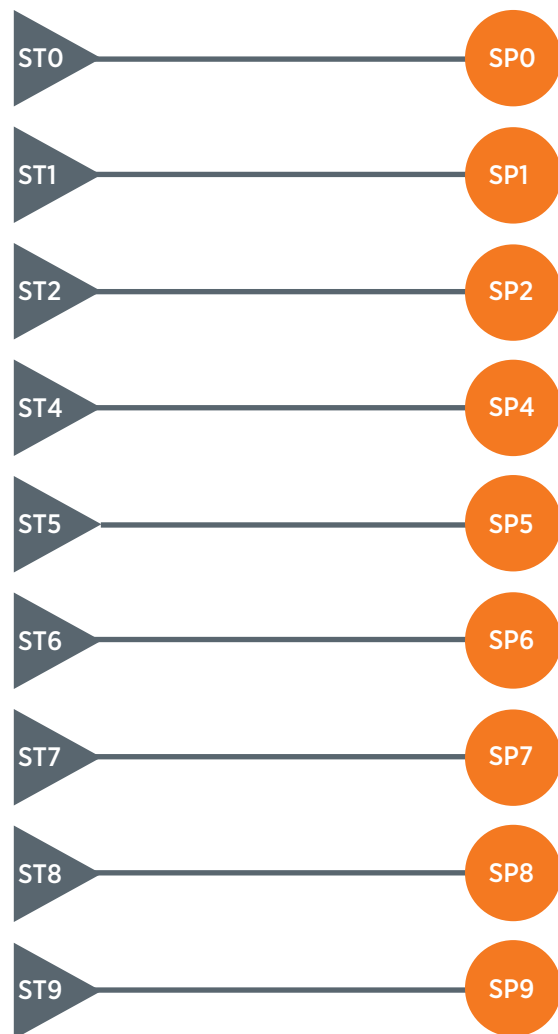
# Transferring

## from Specialist Technical (ST) to Specialist Principles (SP)

The Specialist Principles (SP) subjects cover the content in the Specialist Technical (ST) subjects. The name change to 'Principles' indicates the requirement to be able to demonstrate an understanding of the concepts of the subject area.

In the Finance and Investments area the re-naming better illustrates the content that they now cover.

The assessment will remain the same, with each individual module being examined using a 3 hours and 15 minutes paper-based examination. There will continue to be an option for those who have obtained an alternative qualification through module SP0.





# Transferring

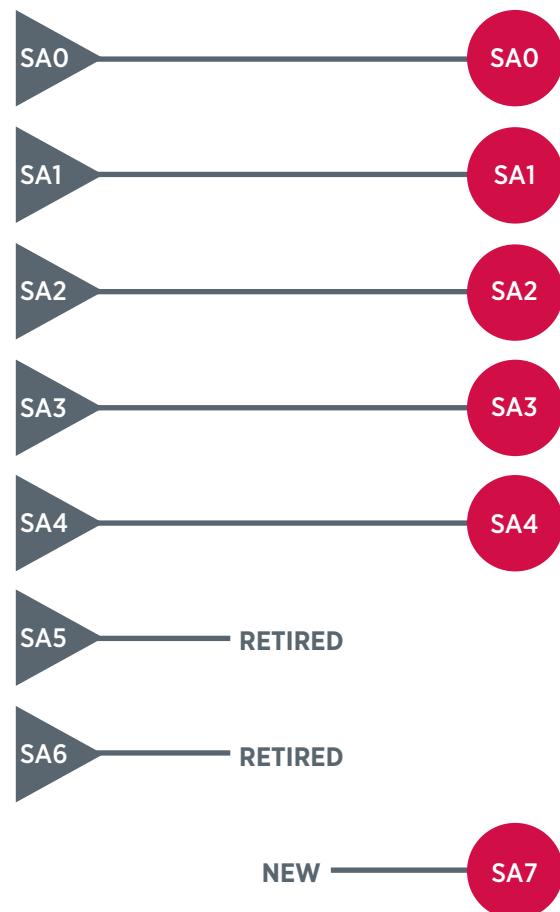
## from Specialist Applications (SA) to Specialist Advanced (SA)

The Specialist Advanced (SA) subjects cover the content in the Specialist Applications (SA) subjects.

The requirement for detailed knowledge of the UK's legislative and regulatory frameworks has been moved to the UK Practice Modules (UKPM). The Specialist Advanced modules will still require knowledge of the principles of the UK market and regulatory regimes but there has been a re-balancing to include comparison between different jurisdictions and expansion in non-UK-specific topics.

The two existing Finance and Investment modules, SA5 and SA6, have been combined into one module, SA7. The content of SA7 comes from the current SA6 with some additional corporate finance objectives from SA5 being incorporated.

**Passes achieved in both Specialist Applications modules 5 and 6 under the current curriculum will continue to be valid under Curriculum 2019.**



### Changes to the Curriculum

The examinations and modules which are required for qualification as Associate, Fellow or Chartered Enterprise Risk Actuary are contained in the Student Handbook. IFoA may make necessary changes to the curriculum in order to comply with any law or anything we are required to do by any governmental authority, regulator or other agency, or for quality assurance and enhancement reasons. This may include the introduction of new or different modules, exams or content in order to maintain professional standards or to maintain relevancy to the profession and clients and/or to reflect updated research or theory in a subject or its delivery. We will let you know of any such change in advance and how you can transition to any

new curriculum requirements. and if it is not possible to transition you to new curriculum requirements we will attempt to offer you alternative arrangements but if the change is substantial and you are unhappy with the change, you may end your agreement with us and withdraw from the curriculum without any further liability to us.

For any queries relating to Curriculum 2019 please contact the Education Services Team by email:

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