



Institute  
and Faculty  
of Actuaries

# Climate Risk and Sustainability Course

## General information

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## General Information

This document provides an overview of the IFoA's Climate Risk and Sustainability course.

### 1 Introduction

Whilst the scientific consensus is that climate change associated with global warming is in progress, the scale and timing of its impacts are uncertain. The effects of climate change could potentially have a wide ranging impact on health and mortality, physical assets, and financial markets. Climate-related risks are likely to have a material impact on many aspects of actuarial work. Increasingly key stakeholders (e.g. company boards, regulators etc) expect actuaries to consider the potential impact of climate risks. Actuaries therefore should consider the potential impact of climate-related risks in their work.

It is therefore the IFoA's goal that **climate-related risks are understood and considered by our members in the same way as other major risks** such as interest rate risk and mortality risk.

It is also important that actuarial work on climate related risks is subject to the IFoA's professional standards of balance, rigour, analysis, judgement, and communication.

Many IFoA members currently have limited understanding of climate risk and its possible impacts on their work. The IFoA is committed to providing its members with a range of educational options to support members with respect to climate related risks. The IFoA's Climate Risk and Sustainability course is one of those options. In addition there will be further developments to the IFoA's Fellowship examinations.

### 2 IFoA Climate Risk and Sustainability course overview

The objective of the IFoA's Climate Risk and Sustainability course is that members who complete the credential will understand:

- The main concepts of climate risk and sustainability that are relevant to actuaries:
- How those concepts are relevant and what impact they might have on actuaries' work; and
- How to apply these concepts in their work.

This course should be seen as an enabler to stimulate member interest and understanding about climate change, and a potential platform for members to identify future areas of further study. It is not intended that successful completion of this course alone will make a member a climate risk or sustainability expert.

The IFoA's Climate Risk and Sustainability course sits outside the IFoA's Associateship and Fellowship exam structure, and will be available to all IFoA members.

Climate change is a very large and evolving field, particularly with respect to changes in our understanding of climate risk, best practice, the tools used to assess the impact of climate change, and regulation etc. It is expected that this course will be updated over time to reflect these future changes.

Members should note that the material provided in this course is intended for educational purposes only.

The IFoA invites all members to provide feedback on this course to enable the future development of the course to make it as useful to members as possible.

The IFoA would like to thank the large number of members who contributed to the development of this course, in particular the members in the project team.

### 3 Structure of course material

The course is structured into a number of self-study modules, plus two half day online seminars which has to be attended.

Modules 1 to 5 introduce sustainability and climate risk, the primary stakeholders and understanding what parties and structures influence climate risk and sustainability. Modules 6 to 8 consider the climate-related issues with respect to strategy and risk management, modelling and reporting.

Embedded within the course modules are a large number of links to external material related to climate change and sustainability. These links access supporting material for particular aspects of this course. Much of this external material provides excellent further reading which can help develop understanding of climate change and sustainability. However there is a lot of material in the external links and reading even a proportion of this material will require a significant investment of time.

In a couple of modules course attendees are directed to read specific external linked documents to support their learning. However unless specific direction is provided there is no requirement that participants must read this external material, and participants should use their discretion.

Module			Content
1	Evidence of Man-made Climate Change and its Physical and Transitional Impacts	Self-study	This module looks at the physical impacts of climate change and the impacts of the transition to a low carbon future on business. We also provide an overview of the science connecting human activity to climate change.
2	UN, NGOs, Other stakeholders and Sustainability	Self-study	This module looks at the main global policy initiatives and frameworks that have been established to help limit the worst effects of climate change and to promote the move towards sustainable development
3	TCFD and Financial Regulation	Self-study	This module looks at the evolving approach of financial market regulators and standard setting bodies with respect to climate-related and environmental risks, including the actions taken by the Taskforce on Climate Related Financial Disclosure (TCFD).
4	Economics & Sustainability	Self-study	This module looks at the limitations of current economic thinking, how these are addressed in new economic thinking and vested corporate interests.
5	Intergenerational Issues	Self-study + Half day online seminar	This module looks at the effect of sustainability on intergenerational fairness and changing demographics. The first half of this module will explain key aspect of climate inequality, the second half of the module will use role playing and group discussions to investigate the effects of climate change on inequality and recommend realistic governments actions.
6	Climate Change and Risk Management Strategy	Self-study	This module will examine some of the key considerations in developing and implementing a climate change and risk management strategy.

Module			Content
7	Climate Change modelling	Self-study	This module focuses modelling of the global climate, and the challenges of modelling the financial impact of climate change, including the design of climate and sustainability scenario analyses.
8	Reporting & Communication	Self-study	This module focuses on the disclosure and communication of sustainability and climate risk to key stakeholders.
9	Closing Seminar	Half day online seminar	<p>The course is concluded by an online seminar, which is designed to:</p> <ul style="list-style-type: none"> <li>• Assess your understanding &amp; application of sustainability and actuarial skills.</li> <li>• Provide an opportunity to gain a deeper understanding of sustainability implications.</li> <li>• Highlight a potential of the “perspective” technique for assessing sustainability risks.</li> </ul> <p>You will be provided with a workbook containing exercises and research that must be completed prior to attending the seminar. The seminar exercises will be based on the fictitious Actuarial Retail Company.</p>