



Catastrophe Risk Credentials





I. Overview

In today's field of catastrophe risk, there is growing demand by employers and business executives to access qualified talent – professionals who meet industry standards in understanding and applying the specialized tools used to manage catastrophe risks. The International Society of Catastrophe Managers (ISCM), an association promoting catastrophe management professionalism within the insurance industry, and The CAS Institute (iCAS), a subsidiary of the Casualty Actuarial Society (CAS), joined forces to produce credentials that meet this critical need.

The Certified Specialist in Catastrophe Risk (CSCR) and the Certified Catastrophe Risk Management Professional (CCRMP)

credentials provide both new and experienced catastrophe risk professionals with different avenues to certify their unique skills, continue their professional education and advance their careers. Our credentials build upon knowledge and practice in this field and provide catastrophe risk professionals with a level of recognition and evidence of their expertise and specialized knowledge.

As organizations specializing in insurance and risk, ISCM and iCAS know that when it comes to risk management, companies rely on the trusted knowledge and expertise of a certified professional. We invite you to explore our credentials and learn how you can certify your knowledge and expertise in catastrophe risk.



II. Who will benefit from our programs?

If you are new to the field of Catastrophe Risk Management:

The [Certified Specialist in Catastrophe Risk \(CSCR\)](#) program, featuring a series of online courses and examinations, will help you gain and demonstrate fundamental knowledge of insurance, catastrophe models and modeling applications.

If you have **significant experience** in Catastrophe Risk Management:

You can be recognized for your advanced skills by applying for the [Certified Catastrophe Risk Management Professional \(CCRMP\)](#) credential through our [Experienced Industry Professional](#) pathway.

* The Experienced Industry Practitioner (EIP) pathway enables individuals with a minimum of five years of job experience to attain the credential through an application process rather than by examination.



III. Overview of CSCR Syllabus

The requirements for earning the Certified Specialist in Catastrophe Risk (CSCR) credential include completing one online course and related exam, passing three additional exams, and completing an online ethics module. Whenever possible, we strive to use the same textbooks for multiple exams.

- Property Insurance Fundamentals
- Catastrophe Risk in the Insurance Industry
- Introduction to Catastrophe Modeling Methodologies
- The Cat Modeling Process
- Ethics and Professionalism

The curriculum and assessments are overseen by subject matter experts, including credentialed Certified Catastrophe Risk Management Professionals (CCRMP).

Proficiency for each topic is assessed via multiple-choice exams. Candidates study the material at their own pace and can schedule their exams when they feel they are ready to take them. Exams are available throughout the year in four windows (January 15-March 15, April 15-June 15, July 15-August 15 and September 15-December 15).

Online courses and exams are administered by the Institutes.

For details on the cost of exams and study materials [click here](#).

IV. Curriculum for the Certified Specialist in Catastrophe Risk (CSCR)

Our curriculum is overseen by expert panels comprised of industry specialists and thought leaders from a variety of firms in the field of catastrophe risk management. A panel for each part was responsible for creating the curriculum, setting the competency levels, directing the selection and development of educational materials, overseeing high-quality examination and scoring and establishing eligibility requirements for every person earning a credential. The process and criteria were vetted and reviewed by leaders across the industry.

The first two parts cover all of the insurance and reinsurance policy information an analyst would encounter as they use catastrophe models so that they can understand the meaning of model inputs, specify a reasonable range of input values, and quantify the likely distribution of values.

Property Insurance Fundamentals* is an online course that provides the risk management and insurance background an analyst needs in order to appreciate the context and content of catastrophe modeling, such as coverages, policy design and parameters.

Catastrophe Risk in the Insurance Industry covers the historical context of catastrophe modeling and why it is important to the (re)

insurance industry. The learning objectives discuss standards of practice and provide an overview of risk management.

Introduction to Catastrophe Modeling Methodologies covers aspects of the mechanisms of catastrophe models that are generally applied to perils irrespective of global region. The material describes the considerations involved in building the hazard and vulnerability modules for the two primary perils of wind (hurricane/tropical cyclone/typhoon) and earthquake. It also describes, at a much higher level, special considerations for secondary perils, emphasizing the common structure of catastrophe models.

The Cat Modeling Process covers catastrophe risk management broadly, with an emphasis on the use of models. It focuses on the process that is largely peril independent. Topics include: preparing data for modeling and using the model output to make business decisions, the probability and statistics needed to understand and interpret catastrophe model output and the use of catastrophe model output to make risk management business decisions.

Ethics and Professionalism* covers ethical behavior crucial to preserving trust in the work and opinions of a professional. An online course covers the expectations to maintain the public's trust.

* Some of the requirements may be waived for candidates who have met the requirements of other credentials, such as the Chartered Property Casualty Underwriter (CPCU), Associate in Reinsurance, (ARe), the Associate or Fellow of the Casualty Actuarial Society (ACAS or FCAS), and Exams LM1 and LM3 of the Certificate in Insurance offered by the Chartered Insurance Institute (CII).

V. Continuing Education

Credential holders are expected to maintain and advance their knowledge in the field through [continuing education](#) programs and professional development to remain current and to maintain high ethical standards apropos of professionals being relied upon by the public and business decision makers. ISCM and iCAS offer a variety of [educational events](#) throughout the year that are open to credential holders and other interested professionals.



VI. Candidate Testimonials



Andrew Golub, CSCR, FSA, CERA

Managing Director and Chief Analytics Officer, Beecher Carlson

“The CSCR educational program caught my eye when it was launched. The program provides important insights into the mathematical underpinnings and scientific assumptions underlying catastrophe models. Knowing that it is backed by organizations that have a reputation for clear and accessible educational materials appealed to me. I would definitely recommend this program to anyone in the analytics field. It provides valuable insights into evaluating risk for natural catastrophes – as well as other extreme events, such as cyber liability – that have a low probability of occurrence but a high severity when there is an event. The program provides lessons on how to leverage the thought processes used for modeling natural perils and embed them into a consolidated multidisciplinary framework to quantify and manage risk in situations where there isn’t a clearly defined playbook.”

Our credential holders work around the world at insurance and reinsurance companies, brokers and catastrophe modeling firms such as:

Allstate Insurance Company	BMS Re	Holborn	RenaissanceRe
Aon	Chubb	Liberty Mutual	The Hartford
AXA XL	Cincinnati	Lloyds	TransRe
AXIS Capital	CoreLogic	Munich Reinsurance	Travelers
	Guy Carpenter	QBE	Willis Re

The catastrophe management industry values diversity in academic backgrounds due to the broad range of models available and various applications.

Our credential holders’ diverse educational backgrounds include actuarial, business, civil and structural engineering, computer science, meteorology, risk management and seismology. Most of all, analytical ability and intellectual curiosity are important for success!

They hold jobs such as:

- Catastrophe Modeler
- Catastrophe Risk Analyst
- Head of Catastrophe Management
- Head of Exposure Management
- Chief Analytics Officer
- Lead Geoscientist
- Head of Catastrophe Research and Development
- Property Underwriter

VII. Employer Testimonials

Employers value our credentials, which enable them to identify and retain top talent in the industry. Many leading insurance and reinsurance companies offer candidates support in pursuing the CSCR and CCRMP credentials, including reimbursement for exams and study material and financial rewards for successful completion.

AIR

“AIR is pleased to be partnering with the iCAS and ISCM on this new educational initiative. We are happy to support any program whose goals are better and more intelligent use of extreme event models, and this program in particular provides a broad industry perspective that fits very nicely alongside vendor specific programs such as AIR’s CEEM.”

BMS Group

“BMS fully supports the continuing education of its employees and the development of credentials for its catastrophe management professionals. Our employees who are involved with the International Society of Catastrophe Managers (ISCM) and who hold the Certified Specialist in Catastrophe Risk (CSCR) and Certified Catastrophe Risk Management Professional (CCRMP) designations benefit personally by being associated with a network of peer professionals for ongoing education and career advancement. Moreover, it allows BMS to provide the highest quality service and advice to its clients when performed by such highly credentialed employees.”

Chubb

“Analytical functions across the insurance industry, covering finance, risk management and actuarial, are well served by internationally acknowledged and recognized qualification standards. Given the increasing importance of Catastrophe Risk Management within insurance industry, it is great to see the ISCM releasing a vendor agnostic structured training course. These qualifications should provide those considering a career in Catastrophe Risk Management a structured path for development and accreditation, and assist potential employees in their candidate selection process.”

Guy Carpenter

“Guy Carpenter fully supports the CSCR/CCRMP designation as a standard adopted by the industry for credentialing and career pathing cat analysts in a manner consistent with their actuarial colleagues.”

Liberty Mutual

“Liberty Mutual actively encourages and supports employees in their pursuit of meaningful career development and growth. The availability of a targeted and credible credential program for the increasingly important role of Catastrophe Management is necessary and welcomed. We are promoting pursuit of the Catastrophe Risk Management credentials within our catastrophe management job family and supporting it through our professional education framework.”

Munich Re

“Munich Re encourages and supports employees pursuing life-long learning for personal and professional development. Munich Re provides financial assistance and education incentive bonuses for approved programs and courses, which reinforces and recognizes the mutual benefits derived from continued education. The Certified Specialist in Catastrophe Risk (CSCR) and Certified Catastrophe Risk Management Professional (CCRMP) have been newly added to our list of approved programs, incentivizing employees in the cat modeling/cat risk management roles to pursue these designations.”



VIII. Our Partners



The International Society of Catastrophe Managers (ISCM) is a professional association that promotes catastrophe management professionalism within the insurance industry. The ISCM is a global organization with members in over 25 countries and provides forums for exchange of ideas, understanding current catastrophe management issues, and networking among catastrophe managers.

To learn more, visit CatManagers.org



The CAS Institute (iCAS) is a wholly-owned subsidiary of the Casualty Actuarial Society (CAS) that provides premier specialty credentialing and professional education to quantitative specialists in selected areas.

To learn more, visit TheCASInstitute.org



The Institutes, a leading global education provider of educational materials, administers the examinations ensuring that The CAS Institute's credentialing process meets the highest standards of excellence in professional education. The Institutes administers other prestigious programs such as Chartered Property Casualty Underwriter (CPCU) and Associate in Reinsurance (ARe).

To learn more, visit TheInstitutes.org

For more information about our credentials,
visit CatRiskCredentials.org or
email CatCredentials@catmanagers.org.