

**CALL FOR SCHOLARSHIP APPLICATIONS**

**INTERNATIONAL COURSE**

**THREAT ASSESSMENT DUE TO FLOODING AND MASS REMOVAL IN UNCONTROLLED BASINS AND WITH LITTLE INFORMATION**

**2nd EDITION: MIXED-MODALITY FORMAT**

**From 22 October 2025 – 12 december 2025**

Call for Applications available at: <https://www.agcid.cl>

Chilean International Cooperation Agency for Development │ AGCID



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**BACKGROUND**

According to the United Nations Office for the Coordination of Humanitarian Affairs (2020), Latin America and the Caribbean is the second-most disaster-prone region in the world. The occurrence of natural disasters not only threatens lives and property, but can also reverse the progress of nations in terms of their development, eroding resilience and increasing vulnerability.

The Government of Chile, through the Chilean International Cooperation Agency for Development (AGCID), in collaboration with the Japan International Cooperation Agency (JICA), seeks to contribute to developing and strengthening the capacities of professionals and technicians in the region. To this end, and inspired by the Sustainable Development Goals of the 2030 Agenda as well as the Sendai Framework for Disaster Risk Reduction, they have created the **Building Resilient and Sustainable Societies Against Disasters in Latin America and the Caribbean Project (Kizuna II)**. The initiative is part of the second phase of the successful Kizuna Programme, which trained more than 5,000 participants between 2015 and 2020.

This course, titled “Threat Assessment Due to Flooding and Mass Removal in Uncontrolled Basins and with Little Information”, aims to serve as a concrete action of international cooperation to build professional, institutional, and public policy capacities that contribute to moving towards communities that are better prepared and more resilient to natural disasters.

The initiative will be implemented for a period of two years beginning in Japanese Fiscal Year 2024 and is divided into two (2) mixed modality editions, one in each Japanese Fiscal Year until 2025. It is part of the Kizuna II Project and falls within the framework of the Japan – Chile Partnership Programme (JCPP2030) and the Technical Cooperation Agreement signed between the governments of Japan and Chile.

The second edition of the course will take place in 2025.

**OVERVIEW**

1. **OVERRIDING OBJECTIVE**

To promote policies, strategies, programmes, and collaborative actions with Latin American and Caribbean (LAC) countries, in accordance with the priorities for action of the Sendai Framework for Disaster Risk Reduction 2015 – 2030 and the Sustainable Development Goals (SDG 2030).

1. **COURSE OBJECTIVES**

To acquire the capabilities to develop maps or models modeling of geological threats such as mass removal and flooding, incorporating climate variability and climate change in uncontrolled basins with little information.

1. **EXPECTED OUTCOMES**

Course participants are expected to improve their knowledge and skills and, by the end of the course, be able to:

1. Identify and characterize extreme precipitation events that trigger debris flows and pluvial flooding;
2. Analyse geological threats related to landslides, describe the characteristics of run-off from basins, and understand the basic concepts of hydrological modelling.
3. Analyse extreme precipitation events that trigger debris flows, pluvial flooding, and flood flows in catchment basins associated with extreme events, including climate change and hydrological change, using the corresponding tools that enable the identification, characterisation, description and zoning of such phenomena.
4. Propose an Action Plan for the development of risk maps or models that are feasible to be implemented in their country.
5. **IMPLEMENTING INSTITUTIONS**

The mission of the Faculty of Physical Sciences and Mathematics of the Universidad de Chile is to generate, develop, integrate, and communicate knowledge of basic sciences, engineering, earth sciences, and economics and management. This mission is fulfilled through its teaching, research, and outreach activities, undertaken at the highest levels of complexity and according to standards of international excellence.

1. **DURATION OF COURSE**

The course shall take place between 22 October 2025 and 12 December 2025, and will be taught through a mixed format of virtual and in-person classes. It is a 8-week course, in which the first 7 weeks are held online. The online component of the course requires a commitment of 6 hours per week, divided into two 3-hour sessions per week. Week 8 of the course will be held in-person (in Chile) and requires a commitment of 40 hours. It will consist of four days of 8-hour sessions, plus one field trip.

The initial online component of the course, held via streaming, will use the Zoom platform for the live, synchronous transmission of each of the classes taught by professors and experts. Participants will also have access to the U-Cursos digital learning platform. This is followed by a second in-person component of the course, which will be held at the Faculty of Physical Sciences and Mathematics of the Universidad de Chile. This component of the course will last one week.

1. **LANGUAGE**

The course will be taught entirely in Spanish.

1. **SCHOLARSHIP BENEFITS**

Successful applicants will be awarded a scholarship that will cover 100% of the following items:

* The tuition and fees for the academic programme.
* Certificate of completion.
* Roundtrip airfare from the main international airport of the country of origin to the location where the course will be held (any en route stopovers within the country of origin must be covered by the participant).
* Transfers to and from the airport and hotel.
* Accommodation with breakfast at an establishment selected by the course coordinators (information will be provided to selected participants well in advance).[[1]](#footnote-1)
* A per diem, provided in Chilean pesos, in the amount equivalent to USD 30 per day, for food, transportation, and minor expenses.
* Health insurance.
* Transportation for field trips.
1. **INVITED COUNTRIES**

The governments of the following countries will be invited to nominate applicants to the course: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, Dominican Republic, Uruguay, and the following CARICOM member states: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

1. **TOTAL NUMBER OF PARTICIPANTS**

The number of participants from the invited countries will not exceed 20 in total[[2]](#footnote-2) and there are no pre-established quotas per country.

1. **APPLICATION REQUIREMENTS**

This international course is aimed at individuals who meet the following requirements:

Applicant requirements:

* 1. Must be a citizen of one of the countries invited to the course and reside in one of the invited countries. Should the applicant be residing temporarily in a country other than the country of citizenship, the application must be made via the Focal Point of the country of which they are a citizen.
	2. Must be nominated by their government in accordance with the process indicated in Section XI.
	3. Must not be a member of the Armed Forces and/or National Defence;
	4. Must hold a university degree related to engineering, earth sciences, hydrology or disaster risk management.
	5. Must have work experience, in the public or private sector, in the field of earth sciences, geological hazards assessment, engineering, architecture, land-use planning, environmental education, or disaster risk reduction. Or, alternatively, must have basic knowledge of hydrological sciences, ideally from a water resources background.
	6. Must be a professional working in a relevant institution in the field of hydrology or disaster risk management.
	7. Must have an advanced or equivalent level of written and spoken Spanish.
	8. Must have access to the internet for at least 6 hours per week to attend the online classes.

**Important Note:**

Selection priority will be given to candidates who are currently involved in projects related to the national development of their country.

1. **APPLICATION PROCESS**

Candidates interested in participating in the course must submit their application containing all of the required information (a full copy of their application including all respective signatures and stamps) in digital format via email to the Focal Point in their respective country (see Annex VI) for it to be officially registered. The following documents must be presented:

1. Application form (Annex I), duly completed and signed by the applicant and his/her direct supervisor;
2. Letter of Intent (Annex II);
3. Initial Project Report (Annex III);
4. Labour Certificate (Annex IV);
5. Letter of Institutional Commitment (Annex V);
6. Degree certificate;
7. Non-Spanish-speaking applicants must provide proof of language proficiency, such as: certification through an international exam; a copy of their university degree if their undergraduate or graduate studies were completed in a Spanish-speaking country; or a letter of confirmation from the Embassy of Chile in their country.

Candidates must submit their application to the Focal Point in their respective country (see Focal Points, Annex VI) for it to be officially registered. **Applications sent directly without being officially registered via the corresponding Focal Point will not be considered for selection**.

**Each Focal Point will set a date for the applications submission deadline. It is therefore the responsibility of each applicant to directly consult with the Focal Point in their respective country (Annex VI) regarding the closing date for the Call for Applications. Closing dates may vary from one country to another.**

The stages and relevant dates of the Call for Scholarship Applications for this international course are as follows:

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| --- | --- |
| **Stage** | **Dates** |
| Closing date of the Call for Applications *(applicants must confirm the closing date with the Focal Point in their respective country)* | 19 September, 2025 |
| Pre-selection of candidates and submission of applications to the AGCID Scholarship Platform *(for Focal Point)* | 26 September, 2025 |
| Selection Committee | 29 September – 2 October, 2025 |
| Publication of results and notification of selected applicants | 6 October, 2025 |

The final deadline for the receipt of applications is **26 October 2025, without exception. However, the AGCID Focal Points in each country may close the Call for Applications earlier than specified.** Applicants must therefore confirm the closing date for applications with the Focal Point in their country of origin. The contact details for the Focal Points can be found in Annex VI.

**PLEASE NOTE:**

* No incomplete, illegible, or late applications will be considered.
* Only applications officially submitted via the Focal Points will be considered. No application submitted directly by the applicant will be considered, even when accompanied by a letter of acceptance from the country of origin.
* It is the responsibility of applicants to read the Call for Applications carefully, along with all of its requirements, the application process, and the attached documents. Applicants must ensure their application meets the professional requirements specified in the call.
* The information provided in the application form and its respective annexes will be considered a sworn declaration and, therefore, in the event falsified, adulterated, inaccurate or misleading information is presented for the purpose of receiving a scholarship, the applicant shall assume the respective administrative, civil and criminal sanctions, in accordance with the regulations of their country of origin. Moreover, the applicant will be indefinitely disqualified from applying to future Calls for Applications and such circumstance will be reported to the scholarship committee.
1. **SELECTION**

Candidates will be selected by a technical committee composed of members of JICA, AGCID, and the university. This same committee may also evaluate the appropriateness of including additional experts in the field of natural disasters and/or public investment in the process.

**The outcome of the selection will be published on 6 October 2025, on the AGCID website, www.agcid.cl, for the information of all interested parties.**

The course administrators will contact each selected applicant via email, using the contact information provided in the application form, to notify them of their selection and will directly coordinate all arrangements for their participation.

**Important:** Only the applicants selected for the scholarship will be notified. Once they have confirmed acceptance of the scholarship, they will be sent a guide with the corresponding instructions and procedures that will need to be followed.

**The final outcome with respect to those who are awarded scholarships is the sole decision of the selection committee, and the decision cannot be appealed.**

1. **RULES**

**Participants shall respect the following rules:**

* Applicants are responsible for submitting current contact information (Annex I: Application Form) and regularly checking their email accounts in case of requests and official notices from the coordinating team pursuant to the dates described in Section XI.
* Participants shall strictly adhere to the course programme. Requests for changes or alterations to the initially established course programme will not be accepted.
* Participants shall respect the instructions given during the course and foster an atmosphere of cooperation among their fellow scholarship recipients.
* This edition of the course will be taught in a mixed modality format. To successfully complete the course, participants must commit to 85% participation in the online component and 100% participation in the in-person component.
* Participants must complete all of the paperwork necessary to participate in the programme, including obtaining authorization from their supervisor, processing visas, or other documents.
* Participants may only interrupt their participation in the course if duly authorized and only in qualified cases that prevent them from continuing their training.
1. **PRELIMINARY COURSE PROGRAM OVERVIEW**

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| --- | --- |
| **COURSE NAME** | Flood and Landslide Risk Assessment in Uncontrolled and Data-Poor Basins |
| **NUMBER OF PARTICIPANTS** | Maximum of 20 participants per edition.  |
| **DURATION** | * Maximum duration in hours: 80.
* Number of synchronous hours: 80.
* Maximum duration in weeks: 8 weeks.
* The course is taught in a mixed modality format: synchronous online classes followed by one week of practical, in-person classes if possible in Chile.
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*Table 1. Course structure*

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| --- | --- | --- | --- | --- | --- |
| **Module** | **Learning objectives** | **Units** | **General description** | **Format, activities****(synchronous/asynchronous)** | **Duration (hours)** |
| 1. Extreme precipitation events | **Objective:** To acquire knowledge about extreme precipitation events.**Before:** Participants are familiar with general concepts of extreme precipitation.**After:** Participants understand the characterization and genesis of extreme precipitation events. They are able to characterize and define attributes such as intensity, duration, frequency, and spatial-temporal distribution. | Unit 1: General concepts of precipitation | General concepts of cloud microphysics and precipitation generation at the meso- and synoptic- scales. | Format: Synchronous classes (60 mins) | 2 |
| Unit 2: Methods of probabilistic estimation | Methods for the probabilistic estimation of design storms, spatial and temporal attributes. | Format: Synchronous classes (60 mins) | 3 |
| 2. Quaternary geology and geomorphology(5 hrs) | **Objective:** To acquire knowledge about quaternary geology and geomorphology.**Before:** Participants are familiar with general concepts related to disaster risk.**After:** Participants can distinguish specific aspects of quaternary geology and geomorphology associated with floods and landslide phenomena. They are knowledgeable about the geological factors that influence the occurrence of landslides. | Unit 1: General concepts of landslides | Presentation of general concepts of geology and geomorphology that influence or reflect threats of landslides.  | Format: Synchronous classes (60 mins) | 2 |
| Unit 2: Structural geology | Structural geology/rock mass (RMR/GSI). | Format: Synchronous classes (60 mins) | 3 |
| 3. Tools for the identification, characterization, description, and zoning of landslide phenomena (falls, slides, flows).(10 hrs) | **Objective:** Participants will master concepts associated with the susceptibility and hazards of landslides and use basic tools for susceptibility analysis. | Unit 1: Conditions and triggers of landslides | Basic concepts of landslide hazards. Conditions and triggering factors. | Format: Synchronous classes (60 mins) | 2 hours |
| Unit 2:Susceptibility/GIS | Survey of declared events: Santiago Metropolitan Region cadastre.Susceptibility and preparation of susceptibility maps (methods). | Format: Synchronous classes (60 mins)Susceptibility analysis | 3 hours |
| Unit 3: Soil and rock slope stability. | Theory of stability for soils and rocks.Basic stability analysis (slide/rockfall). | Format: Synchronous classes (60 mins) | 3  |
| Unit 4: Experience of Chile | Part of the course will focus on reviewing the treatment of these phenomena by Chilean public agencies – such as the National Geology and Mining Service (SERNAGEOMIN) and the Chilean National Disaster Prevention and Response Service (SENAPRED) – and how risks are communicated. D12 | Format: Synchronous classes (60 mins)Activities: Forum (30 mins) | 2 |
| 4. Flow modelling in instrumented and data-poor basins | **Objective:** To acquire knowledge of flow modelling in instrumented and data-poor (ungauged) basins. **Before:** Participants are familiar with the general concepts of hydrology. **After:** Participants can estimate flows, from instrumented to data-poor basins, based on similarity and regionalization criteria, using standard methodologies of Hydrological Engineering. The latest advances from the International Association of Hydrological Sciences’ Decade on Predictions in Ungauged Basins (PUB) will be presented (Blöschl et al. 2013). | Unit 1:Flood flow estimates | Annual run-off and characterization of basins. Floods. Duration curves. Techniques for predictions in ungauged basins (PUB). Regionalization of duration curves and estimation errors. Seasonality and minimum flows.  | Format: Synchronous classes (60 mins)Activities:Computer workshop | 3 hours |
| Unit 2: Introduction to hydrological modelling | Introduction to hydrological modelling, concepts, parameters, and calibration and verification methods. | Format: Synchronous classes (60 mins) | 3 hours |
| Unit 3:Regionalisation methods for hydrological indices | Annual run-off and characterization of basins. Floods. Duration curves. Techniques for predictions in ungauged basins (PUB). Regionalization of duration curves and estimation errors. Seasonality and minimum flows.  | Format: Synchronous classes (60mins)Computer workshop | 8 hours |
| 5. Climate change and hydrological change  | Objective: To acquire knowledge of climate change, its physical basis, and climate models and their use in the estimation of change in meteorological and hydrological forcings.**Before:** Participants have general knowledge of climate change and associated projections.**After:** Participants are able to use relevant information from global and regional models to characterize hydrological and climate changes in their region of study. | Unit 1: Physical basis of climate change | General concepts regarding the physical basis of climate change and atmospheric modelling. | Format: Synchronous classes (60 mins) | 2 |
| Unit 2: Local projections and estimates | Presentation of knowledge and methods for working with projections from global climate models for estimating flows. | Format: Synchronous classes (60 mins)Computer workshop | 4 |
| 6. Workshop: Landslide and flood hazard modelling  | **Objective:** To acquire knowledge about modelling techniques for the development of risk maps for land-use planning that incorporates disaster risk management (DRM). **Before:** Participants are familiar with the general concepts of hydrology. **After:** Participants are familiar with modelling techniques, data generation, and calculation for developing risk maps and land-use planning that incorporates DRM.. | Day 1 | Basic hydrology and hydrodynamics; modelling of river flows and sediment movement; geographic cartography; application of the results of calculations. | Format: In-person classes  | 8 |
| Day 2 | Introduction to iRIC software; river flow modelling using FaSTMECH; DEM data processing and output to GIS software. | Format: In-person classes  | 8 |
| Day 3 | Field trip | Format: In-person classes  | 8 |
| Day 4 | Debris flow modelling with Morpho2DH; landslide risk assessments.  | Format: In-person classes  | 8 |
| Day 5 | Flood modelling with Nays2D Flood or Nais2dH; riverbed deformation, erosion, and deposition. | Format: In-person classes  | 8 |
| Total course duration  |  |  |  |  | Up to 60 hours |

**XV. CONTACT INFORMATION**

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1. No change of accommodation will be permitted and personal expenses within the hotel will not be covered. [↑](#footnote-ref-1)
2. This academic programme requires a minimum number of participants in order to be held and, for reasons of force majeure, may undergo changes in its programme, teaching staff, and/or method of delivery. Any change will be informed by the course coordinator. [↑](#footnote-ref-2)