

UNIVERSITY OF BERN

#### **CONTINUING EDUCATION**

## CAS One Health





## Foreword

Recent epidemic and zoonotic events have highlighted the critical need for intersectoral collaboration to tackle and prevent future health challenges.

Do you think that cooperation between the human, animal and plant health sectors should be improved? What if you were to become the driving force behind this change?

#### **Contents**

Context and added value of the programme	4
Structure and academic achievements  Basic modules	8
Module developers	13
Practical information	14

# Context and added value of the programme

#### Why should you take this CAS?

The **One Health** approach proposes to extend the recognition of the ecosystem-animal-human interconnection into collaborative professional actions, aiming at sustainably maintaining health in the broadest sense.









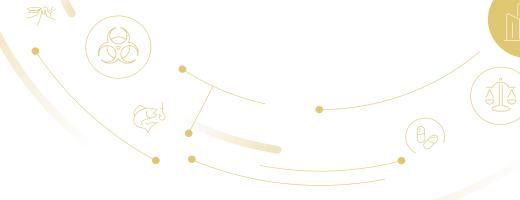
In October 2022, the Quadripartite (FAO, UNEP, WHO, WOAH) adopted a **Joint Plan of Action**, which calls on its member countries to take priority measures to implement the One Health approach. The Action Track 6.4 pleads for the creation of *«an interoperable One Health in-service training programme for environment, medical and veterinary sector professionals».* 

Action Track 6: Integrating the Environment into One Health



The CAS One Health offers such training dedicated to professionals in the fields of environment, human and animal health, but also plant, agriculture, humanities and administration related to health, to equip them with the knowledge, competencies and tools for applying the One Health approach in their professional activities.

In nine modules, the CAS One Health provides the theoretical and practical foundations of the One Health approach from a variety of transdisciplinary and cross-sectoral prisms. You will learn to think and collaborate beyond your area of expertise. You will deepen your knowledge of systemic issues typical of One Health. You will develop reflections or concrete plans to address a One Health problem that you can identify from your professional context, under the supervision of experts from the CAS network



The CAS One Health is a unique continuing education programme in Switzerland. Lectures and group work take place mainly face-to-face to encourage discussion, networking and the creation of a sense of community within the CAS participants. The content is practically oriented and focuses on Swiss and European health priority issues.

All the modules and lectures have been developed in collaboration with experienced and recognised experts from the academic and public sectors. These specialists in their respective fields bridge the gap between practice and science, offering unique insights or leading field trips.

With this new programme, we hope to provide participants and future One Health stakeholders with a common language and understanding of the approach, bringing together different perspectives and professional cultures across sectors and disciplines. This should foster collaboration and joint strategies at different scales in Switzerland and beyond, to better address current and future health and environmental crises.

We are looking forward to welcoming you to our course!

Camille Doras, director of studies Salome Dürr, programme director

«The unifying One Health approach is more crucial than ever. Without a healthy environment and healthy animals, our health is also threatened.»

Anne Lévy,
Director of the Federal Office of Public Health
(FOPH)



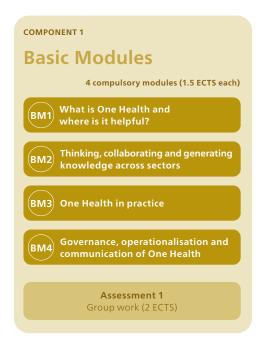
## Structure and academic achievements



«In animal health, food safety and plant protection, we are experiencing first-hand that many of the challenges we face can only be overcome with a One Health approach.»

Hans Wyss,
Director of the Federal Food Safety and
Veterinary Office (FSVO)

#### Structure





#### Component 1 - 8 ECTS

The four compulsory basic modules (BMs) will allow participants to learn the fundamentals of One Health and tools for application. Group work validates the cross-curricular assessment of the first component.

- A BM represents 1.5 ECTS credits, 3 days of presence, and 38–45 work hours, including self-study and assessment.
- Following the BMs in order is recommended, as there are cross-references.

#### Component 2 - 7 ECTS

Five of the six proposed thematic modules (TMs) can be chosen. The TMs provide more in-depth knowledge of One Health systemic issues. A personal project assessment validates component 2.

- A TM represents 1 ECTS credit, 2 days of presence, and 25–30 work hours, including self-study and assessment.
- It is not needed to follow the TMs in order. There may be cross-references to BMs.

Each individual module is made of blended learning components, active participatory forms of teaching and case studies and is subject to a learning assessment.

#### **Academic achievements**

The whole CAS represents 15 ECTS credits. Completion of the CAS involves around 23 days of attendance plus 210 to 285 hours of personal work.

A CAS certificate from the University of Bern is awarded upon successful completion of the full course.

#### **Learning objectives**

At the end of the training, the participants will be able to:

- understand the fundamentals and governance of the One Health approach
- have a good understanding of key One Health methods and topics
- acquire competencies of systems thinking
- are able to evaluate and communicate the added value of the One Health approach
- are able to implement the One Health approach in their professional activities and collaborate across sectors.

#### Credit equivalence

The CAS course is in the process of being recognised by: Swiss Public Health Doctors (SPHD); Swiss Veterinarians Society (GST-SVS).







#### **Basic Modules**

SEPTEMBER - DECEMBER 2025



8-10 SEPTEMBER



In BM1, the history and foundations of One Health will be introduced. The currently accepted definition of One Health, its relationship to related concepts and its meaningful use are presented. A panel of experts will share their respective perceptions of One Health in theory and practice. Participants will engage with systems thinking through exercises, while case studies at the environment-animal-human interface will be integrated into a systemic approach.

Day 1: a panel discussion of experts; history and concepts of One Health Day 2: introduction to systems thinking related to health Day 3: case situations and active exercise through board play



22–24 OCTOBER IN BERN AND WALLIS



Thinking, collaborating and generating knowledge across sectors

In BM2, social and human sciences will reflect on knowledge generation, problem formulation and identification. and collaboration across disciplines and sectors. Participants will be encouraged to question their own systems of thinking. Collaboration tools are presented and put into practice. The ethical values and philosophical concepts of One Health will be illustrated and discussed. The concept of common pool resources management is presented from a socio-anthropological angle, and an excursion to a village in Wallis will demonstrate its practical application for sustainability.

Day 1 (with td-net): tools for intersectoral/transdisciplinary collaboration
Day 2: the humanities and social sciences perspective on the One Health approach

Day 3: an excursion to Törbel (Wallis)





10-12 NOVEMBER



(BM3) One Health in practice

BM3 presents concrete examples of One Health applications, including transdisciplinary project management, integrated health prevention, surveillance and control, and cross-sectoral data management. Theories of change are used to illustrate and apply the impact of health changes on stakeholders. The session also explores the benefits and challenges of cross-sectoral data collection, management, sharing, presentation, and protection.

Day 1 (with td-net): tools for stakeholder analysis and engagement; theories of change for impact orientation Day 2: integrated One Health

surveillance, health risk preparedness and response

Day 3: intersectoral data management



1-3 DECEMBER



Governance, operationalisation and communication of One Health

The current global, European, and Swiss governance of the One Health approach is presented in BM4. The concept of operationalisation is illustrated, and methods for quantitative and qualitative evaluation of the benefits of One Health are explored and applied. Demonstrating the added value of One Health provides a foundation for advocating its adoption and developing evidence-based policy orientations. Communication strategies to promote One Health to various audiences, including decision-makers, are discussed.

Day 1: One Health governance

**Day 2:** One Health operationalisation, evaluation methods

**Day 3:** One Health policy-making and communication



«One Health creates added value for the health of people, animals and plants that arises from closer cooperation. In this course we learn how to provide evidence of these benefits.»

Jakob Zinsstag,
Professor – Head of the Human and Animal Health Unit,
Swiss Tropical and Public Health Institute (SwissTPH)

**Assessment Component 1** 

**JANUARY 14, 2026** 

It consists of group work with an oral presentation based on a cross-module topic.

#### **Thematic Modules**

**JANUARY - JUNE 2026** 





JANUARY 12-13



Climate change, natural resource management and One Health

Preserved ecosystems are the foundation for the health of species in the broadest sense, but also for the food security of our societies. Climate change and the over-exploitation of resources such as water and soil threaten these systems. In TM1, we will explore the impact of climate change and resource degradation on population health. We will also present examples of strategies for mitigating and managing tensions over resources in rural and urban environments.

Day 1: impact of climate change on health, ecosystems and food production; adaptation strategies Day 2: health issues and resource management in an urban environment



FEBRUARY 26-27



Infectious diseases at the ecosystem-animal-human interface

Although many zoonoses have been eliminated in most European countries, emerging pathogens represent a constant risk to the health of humans, wildlife and domestic animals. Living in a densely populated and highly mobile world allows pathogens to spread, adapt and emerge. TM2 presents concrete examples of the prevention and control of infectious diseases, with particular emphasis on zoonoses. The impact of the collapse of biodiversity and biosecurity needs are also addressed.

**Day 1:** ecology of zoonotic diseases **Day 2:** systemic approach to infectious diseases



**MARCH 16-17** 



Antimicrobial resistance and One Health

Antimicrobial resistance (AMR) is considered one of the greatest threats to plant, animal and human health and food security. It exemplifies the need for an integrated One Health approach, given the horizontal transmission of resistance genes between organisms and the necessity for intersectoral interventions. In TM3, the complexity of AMR is explored, with a focus on antibiotic use in hospitals and on farms, the challenges associated with the development of new antimicrobial treatments, and AMR-related policy actions and their implementation within the Swiss context.

Day 1: AMR epidemiology and surveillance in Switzerland
Day 2: One Health in the governance and implementation of AMR policy



**APRIL 23-24** 



Implementing One Health in the public sector

In Switzerland, there are several positive examples of cross-sector collaboration at national, cantonal and community levels from which lessons can be learned. In TM4, such examples are presented by those involved first-hand. They will share the difficulties and solutions generated while co-creating strategies or codeveloping projects. They will discuss the results of evaluating these initiatives in terms of health and socioeconomic added value. This module will help participants to successfully plan and implement One Health projects in the public sector.

**Day 1:** the organisational and legal framework for initiatives in Swiss administrations

**Day 2:** lessons learned from case studies



«Understanding the dimensions of One Health and the link between human and ecosystem health is a priority today for effectively addressing current and future public health crises.»

Ana Vicedo,
Professor – Head of the Climate Change and Health group
Institute of Social and Preventive Medicine (ISPM)

«In the federal, cantonal, and municipal administrations, we are increasingly faced with issues that must be tackled jointly by several authorities and directly and indirectly impact health. Whether the One Health approach is needed is no longer a debate but a factual application.»



Jörg Allmendinger, Cantonal physician Glarus



MAY 11–12 IN BERN AND SPIEZ



Biosafety, biosecurity and One Health

Biosafety and biosecurity are disciplines that developed tools to prevent health hazards for humans, animals and plants. In TM5, the theoretical principles of biosecurity and biosafety are introduced, followed by a discussion on their application within a One Health approach, supported by concrete case studies. Participants will visit the Spiez Laboratory, which specialises in highly infectious diseases and engage in real-life, hands-on exercises. The module is taught in collaboration with the Swiss Biosecurity Network (SBNet).

**Day 1:** biosafety and biosecurity linked to One Health

**Day 2:** an excursion to the Spiez Laboratory (Canton of Bern); visit and simulation exercise in the case of an outbreak



JUNE 18–19 IN MENDRISIO, TICINO



Vector-borne diseases and One Health

Vector-borne diseases (VBDs), transmitted by midges, mosquitoes, or ticks, are emerging across many European countries due to the spread of their vector hosts. Factors such as warmer temperatures, globalised transport, and the management of water and wetlands in both rural and urban environments contribute to this trend. Integrated solutions are essential to mitigate the impact of these diseases. In TM6, the complexity of VBD emergence is illustrated through examples in humans and animals. Integrated and community-based surveillance and control strategies are presented, along with practical field exercises. This module is taught in collaboration with SUPSI and will take place in Mendrisio in June, when the vectors are active.

**Day 1:** presentation of SUPSI; surveillance for VBDs and vectors with a systemic approach

**Day 2:** observation of control measures in the field; participative approach for mosquito control

#### **Assessment Component 2**

**DEADLINE AUGUST 31** 

It consists of individual work with a written assignment based on a cross-module topic.

The CAS One Health is a brand new programme. Training content is subject to change as the programme develops and in response to feedback from future participants. Stay updated on our web page.

## Module developers

The courses were developed and are delivered in collaboration with the following institutions (non-exhaustive): University of Bern (Unibe), Swiss Tropical and Public Health Institute (SwissTPH), Institute for Fish and Wildlife Health (FIWI), Veterinary Public Health Institute (VPHI), University of Fribourg (UniFr), One Health Institute University of Zürich, University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Swiss Biosafety Network (SBNet), and Network for Transdisciplinary Research (td-net) affiliated to the Swiss Academies of Arts and Sciences.

A list of experts who have made a substantial contribution to the development of the CAS content and who also teach (not an exhaustive list of all lecturers and subject to change):

**Irene Adrian-Kalchhauser,** Prof. Dr., Head of Institute for Fish and Wildlife Health, Unibe

**Jörg Allmendinger,** MD, Cantonal physician, Canton of Glarus; FMH; One Health Unterorgan

**Christian Althaus,** PD Dr., Deputy Head Section Emerging Infectious Diseases and International Cooperation, FOPH

**Claus Beisbart,** Prof. Dr., Institut of Philosophy; MCID. Unibe

**Camille Doras,** Dr. med. vet., MPH, scientific collaborator, VPHI, Unibe

**Salome Dürr,** Prof. Dr. med vet., Head Epi Section of VPHI; MCID, Unibe

**Eleonora Flacio,** Dr., Head of Vector Ecology, Institute of Microbiology, SUPSI

**Tobias Haller,** Prof. Dr., Head of Institute of Social Anthropology, Unibe

**loannis Magouras,** Dr. med vet., group leader, VPHI, Unibe

**Angela Martin,** Dr., lecturer, Environmental Sciences and Humanities Institute, UniFr

**Stefan Müller,** Dr., Project leader, td-net

**Francesco Origgi,** Prof. Dr., Head of Institute of Microbiology, SUPSI

**Giulia Paternoster,** Dr. med. vet., Vigilance assessor, Swissmedic

**Theres Paulsen,** MSc ETH Environ. Sc., Director of td-net

**Simone Pisano,** Dr. med. vet, co-Head of wildlife division, Institute for Fish and Wildlife Health, Unibe

**Chantal Ritter,** Dr. med. vet., Head of veterinary service, Canton of Solothurn; GST-SVS

**Simon Ruegg,** Dr. med. vet., Senior scientist, Section of epidemiology, UZH

**Caroline Schlaufer,** PD Dr., Ethics and Policy Lab, KPM; MCID, Unibe

**Kathrin Summermater,** Dr., Head of Biosafety Centre, IFIK; MCID, Unibe; SBNet

**Muriel Surdez,** Prof. Dr., Social Sciences departement, UniFr

**Ana Vicedo,** Prof. Dr., Head of the Climate Change and Health group, ISPM; MCID, Unibe

**Barbara Wieland,** Dr. med. vet., Head of Institute of Virology and Immunology, Swiss Confederation

**Jakob Zinsstag,** Prof. Dr. med. vet., Head of Unit Human and Animal Health, SwissTPH

### Practical information

#### **Target audience**

The CAS One Health is aimed at professionals working or willing to work in One Health-relevant positions, particularly in environmental, plant, animal, and human health, agronomy, social and humanities sciences, economics, and law.

#### Admission

Prerequisites: university degree or professional experience in fields related to One Health. Admissions without university degree or experience in One Health may be considered based on application file on a case-by-case basis by the programme board.

#### Language

The course language is adapted to the composition of the audience: English or German. Course materials are generally in English. Assessments can be performed in the preferred language (English, German, French).

#### Duration

9 modules completed over the course of one year to maximum 3 years.

#### **Course locations**

University of Bern Hallerstrasse 6

(5 minutes walk from the main station)

#### **Excursions:**

BM2, day 2 in Törbel, Canton of Wallis TM5, day 2 in Spiez, Canton of Bern TM6, day 1 and 2 in Mendrisio, Canton Ticino

#### Costs

CAS price: 9'980 CHF

The price includes courses, materials, refreshments during breaks, registration fees and examination fees. The price does not include on-site lunches during module sessions, transport to excursion sites and on-site accommodation during TM6.

If you require accommodation in Bern during the sessions, please contact us for prices negotiated with Unibe.

Modules can also be booked individually, subject to the availability of places. Individual module price: Basic Module: 1'300 CHF Thematic Module: 850 CHF

#### Registration

Registration online via the CAS webpage. Please refer to the registration dates on the webpage.

#### **More information**

For more information, including on the conditions of registration, please refer to the terms and conditions available on the CAS webpage:



weiterbildung.unibe.ch/onehealth









For questions relating to the CAS One Health programme or individual modules, write to: cas-onehealth.vphi@unibe.ch



Director of studies
Camille Doras, Dr. med. vet, MPH



Programme Director Salome Dürr, Prof. Dr. med. vet., Dipl. ECVPH

#### **Partners**

The CAS One Health was developed with the financial support of the Multidisciplinary Center for Infectious Diseases (MCID), Vetsuisse Faculty and the Zentrum für universitäre Weiterbildung (ZUW).



UNIVERSITY
OF BERN

MCID MULTIDISCIPLINARY CENTER FOR INFECTIOUS DISEASES University of Bern | University of Zurich

vetsuisse-faculty





#### **University of Bern**

Veterinary Public Health Institute (VPHI) Multidisciplinary Center for Infectious Diseases (MCID) Hallerstrasse 6 CH-3012 Bern

E-Mail cas-onehealth.vphi@unibe.ch www.weiterbildung.unibe.ch/onehealth