







# Scientists have an important role to play in policymaking

How can you make sure your research has impact? The world is changing. Critical challenges that we face for preserving our livelihood and a sustainable future for all, need reliable data and scientific evidence to inform policymaking.

Scientists need to engage with the policy world and stakeholders need to be relevant and have their work incorporated into policy and societal debates. The PhD Program in Science and Policy provides participants with the tools and skills they need to bridge science and policymaking.

This program is open to students from the environmental, agricultural, climate, earth, engineering, energy, food and life sciences disciplines.

The program has been approved as a structured training program by leading universities: ETH Zurich, the University of Basel and the University of Zurich, Life Science Zurich Graduate School.

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Video: Scan or click to watch!

«The better scientists understand political decision processes, the better they are able to formulate research projects that will advance political decisions. That's why this program is a unique opportunity.»

Andreas Hauser, FOEN

# Overview of the program

# Lecturers and case study supervisors

Top scientists, national and international experts from governmental offices, NGOs, private organisations and politicians contribute to lectures, workshops, interviews and case studies. With their practical expertise, they add to the hands-on course experience. Students get direct insight into the world of policymaking.

## **Degree**

Students will obtain their doctoral degree from the University of Zurich, ETH Zurich or the University of Basel and will receive an additional Program Certification from the Zurich-Basel Plant Science Center.

## Competencies

- Learn about the policymaking process and the ways to engage with evidencebased research.
- Learn how to translate research findings for policy-relevance.
- Improve your communication of scientific results with policymakers, media and the public.
- Learn to involve different stakeholder groups in a participative process.
- Build competencies and skills for your transition into a science-policy career.
- Build a science policy network.

## Length of the program

2-3 years



hotos: «Scientist» by Tima Miroshnichenko and en Haao, Nederland» by Jan van der Wolf – Pexels

## Curriculum

Students can tailor coursework to their needs. The 12 ECTS required for program completion should be selected as follows:

	Course category	Course title	ECTS
Compulsary	Basics of policy science	Introduction to political sciences	1 ECTS
	Policy workshops min. 4 out of 6 have to be chosen (see descriptions on the next page)	Evidence- based policymaking	min. 8 ECTS (2 ECTS per workshop)
		Stakeholder engagement	(2 ECTS per Workshop)
		Communicating science	
		Building political support	
		Risk communication	
		Understanding policy evaluation	
	Other compulsory course(s)	Please consult the regulations of your university	depends on the regulations of your university
Elective	PSC elective activities	Transforming and changing social practices	remaining ECTS to achieve 12 can be chosen
		Strategic foresight and scenario building	from elective activities
	Other elective activities	Other technical courses or transferable skill courses or active contribution to international conference	

For more detailed information, please consult our webpage. https://www.plantsciences.uzh.ch/en/teaching/phdsciencepolicy.html

# Workshops

The workshops are block courses, repeated every 1.5 years. Each workshop consists of lectures, hands-on training and group work on case studies.

#### Evidence-based policymaking

- Get to know the policy cycle as a normative conceptual framework
- · Analyze real-life examples of regional or national policies
- Explore how policy-relevant evidence is produced and incorporated in practice

Evidence-based policymaking involves a balance between professional judgment and expertise, on the one hand, and the use of valid, reliable and relevant research evidence, on the other hand

#### Stakeholder engagement

- Gain understanding of stakeholder engagement
- Identify and analyze stakeholders
- Apply different levels of involvement; understand their strengths and weaknesses

Implementing policy programs often involves changing habits and adopting new techniques. The obvious way to convince people of the benefits of proposed changes is to involve them as equal partners in the process of analysis of the issue and in the development of policy proposals.

#### Communicating science

- Identify and communicate aspects of your research to the media, policymakers and a wider public
- Know and adequately use different communication tools
- Comprehend science communication as an ongoing dialogue

Communicating with the media is increasingly seen as an important aspect of facilitating dialog between scientists and policymakers.

In this workshop, students will practice how to communicate science in an effective way to the media, policymakers and a wider public.

#### **Building political support**

- Know the relevant policy and decision making sectors in Switzerland and the European Union
- Know ways to build political support in Switzerland
- Learn about advocacy and strategies to advocate your topics at the science-policy interface

In this workshop, the students shall learn what kind of actions are necessary to implement policies in different sectors, incl. public agencies, the civil society or the private sector.

#### Risk communication

- Apply quantitative models to measure uncertainties
- Understand the role of risk-based evidence as a decision framework for policy choices
- Develop effective strategies for communicating risk and uncertainty

Applied concept of risk and uncertainty help to improve the effectiveness of science in informing policymakers. In this course, students will learn how to analyse and communicate risk and uncertainty.

#### Understanding policy evaluation

- Know different types of policy evaluation and their methods
- Understand logic models and theory of change in the context of policy evaluation
- · Apply policy evaluation logics in a case study

Based on the theoretical and methodological introduction on policy evaluation conducted by social scientists, participants reflect on how natural science can contribute to policy evaluation and on how research can become socially relevant.

For more detailed information, please consult our webpage.

https://www.plantsciences.uzh.ch/en/teaching/phdsciencepolicy/courses.html

#### **General information**

The PhD Program in Science and Policy is organized by the Zurich-Basel Plant Science Center (PSC). Additionally, the program offers fellowships that include strong collaborations with policymaking organisations.

PSC is a competence center linking and supporting the plant science research community of the University of Zurich, ETH Zurich and the University of Basel. It provides platforms for interactions with peers, policymakers, industry, stakeholders and the general public.

Zurich-Basel Plant Science Center Tannenstrasse 1, 8092 Zurich, Switzerland plantsciences.ch

#### Contact

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## Science & Policy Blog

The Science & Policy Blog gives you a broad overview about recent research work and contributions by fellows and scientists working at ETH Zurich, Universities of Zurich and Basel at the science-policy interface.

Link blogs.ethz.ch/Science\_and\_Policy

## Who can join the program?

Are you motivated to practice excellent research in the ife, environmental, earth, agricultural, engineering, energy or food sciences and by the opportunity to work at the interface of policy, society and science?

Are you positioning yourself in an academic career or are you oriented towards policy interfaces, governmental institutions or NGOs?

# This PhD program may be the right choice for you!

The PhD program is open to everybody enrolled as a PhD student at ETH Zurich, Univerity of Zurich or University of Basel. Please contact us for questions about registration:

psc\_phdprogram@ethz.ch

# Are you interested in attending a single course or workshop?

If you are not registered to the program, you can still attend workshops as an external participant if places are available.

## Registration

For further details and registration please visit our webpage:

plantsciences.uzh.ch/en/ teaching/phdsciencepolicy