



Zurich-Basel Plant Science Center



PhD Program in Plant Sciences

Guide for registration

Innovative education and research networking

How can you master scientific content, critical thinking, creativity and collaboration?

The Plant Science PhD program familiarizes you with the frontier topics of plant sciences from the start. Truly interdisciplinary our lectures are focusing on current and innovative research concepts from molecular and plant biology to ecosystems. Hands-on training introduces you to up-to-date research techniques including a large set of workshops on digital skills, statistical methods, machine learning or the use of artificial intelligence in the plant sciences.

Stay on top of your research from the start!

In transferable skill courses you learn to successfully write, present yourself. communicate science on conferences but also to the public and to manage your research and projects.

Join the PhD program «Plant Sciences»!

Around 30 courses are offered each year to

train your key skills and beyond.

«This course was beyond my expectation. The instructor was highly sincere to help in learning»

Feedback of a participant in the PSC course «Scientific Presentation Practice»



Curriculum

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

| | Course category | Course title | ECTS |
|--------------------------|--|--|---|
| Compulsory | PSC Colloquium | Challenges in Plant Sciences | 2 ECTS |
| | Research Integrity | Please consult the regulations of your university. | 0–1 ECTS |
| | Other Compulsory Course(s) | Please consult the regulations of your university. | Depends on the regulations of your university |
| Core Elective Activities | Research & Technical Skill | | 4–10 ECTS |
| | Digital Skills & Statistics Transferable Skills | | |
| Elective Activities C | Talk or Poster: Participation in international scientific symposium (max. 1 ETC) | | max. 6 ECTS |
| | Engagement In Green Labs (UZH only (max. 1 ECTS) Organization of PSC PhD Symposium (max. 2 ECTS) Other scientific or transferable skill courses | | Remaining ECTS may be chosen with approval of princi- pal investigator or thesis committee. |

At the University of Zurich and ETH Zurich, a total of 12 ECTS are required. At the University of Basel, a total of 18 ECTS are requested.

For more detailed information, please consult our webpage. www.plantsciences.uzh.ch/en/teaching/phdplantscience/curriculum.html

Elective core activities

The course catalogue offers a wide variety of <elective core activities>, where various skills can be acquired to reach 4–10 ECTS.

Research & Technical Skills

- Research Methods
- Knowledge Transfer
- Molecular Biology
- Microbiology

- Plant Chemistry
 - Plant Genetics, Development and Evolution
 - Plant Interactions and Macrobiology on Ecosystem Level

Digital Skills & Statistics

- Statistics & Modelling
- Data Management
- Languages & Programming
- Regression

- Omics
- Data Visualization
- Machine Learning & Al

Transferable Skills

- Communication
- Research Integrity
- Research Management
- Funding Strategies

- Critical & System Thinking
- Value Sensitivity
- Career Development
- Science & Policy Courses

Consult the **COURSE CATALOGUE** on our webpage for more detailed information.

Overview of the program

The PhD Program in Plant Sciences is a joint program of the University of Zurich, ETH Zurich and the University of Basel.

The structured curriculum offers training in frontier topics of plant sciences, including molecular biology, ecology, evolution, environmental and agronomic sciences.

It also provides opportunities to acquire technical and transferable skills for careers in- and outside of academia.

Degree

Students obtain their doctoral degree from their home institution, either the University of Zurich, ETH Zurich or the University of Basel. Upon successful completion, they will receive an additional PhD Program Certification from the Zurich-Basel Plant Science Center listing all attended courses in detail.

Length of the program 2–3 years

«I like the program a lot and I am highly motivated to participate in other upcoming courses.»

Feedback of a participant in the PSC course «Current Challenges in Plant Breeding»

Competencies

The PSC PhD Program in Plant Sciences assures competencies for example in:

- Get to know fundamental and applied plant sciences;
- Scientific writing, publishing and information management;
- Digital competencies in analyzing, interpreting and visualizing research datasets;
- Project management;
- Communicating science to the public in different formats; and
- Developing fundraising strategies.



General information

The Zurich-Basel Plant Science Center (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.

The PSC promotes fundamental and applied research in plant sciences. We seek creative approaches to research mentoring and coursework for students and postdocs, and we provide platforms for interactions with peers and the general public.

The program has been established in 2002 and approved as a structured training program by the three partner universities and the Life Science Zurich Graduate School.

Who can join the program?

Are you positioning yourself in an academic career or are you keen in plant science research? This PhD program may be the right choice for you!

The Program is open to PhD students from the environmental, agricultural, climate, food and life science disciplines enrolled at ETH Zurich, University of Zurich or University of Basel.

Please contact us for questions about registration.

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.

Contact

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Registration

www.plantsciences.uzh.ch/en/ teaching/phdplantscience.html