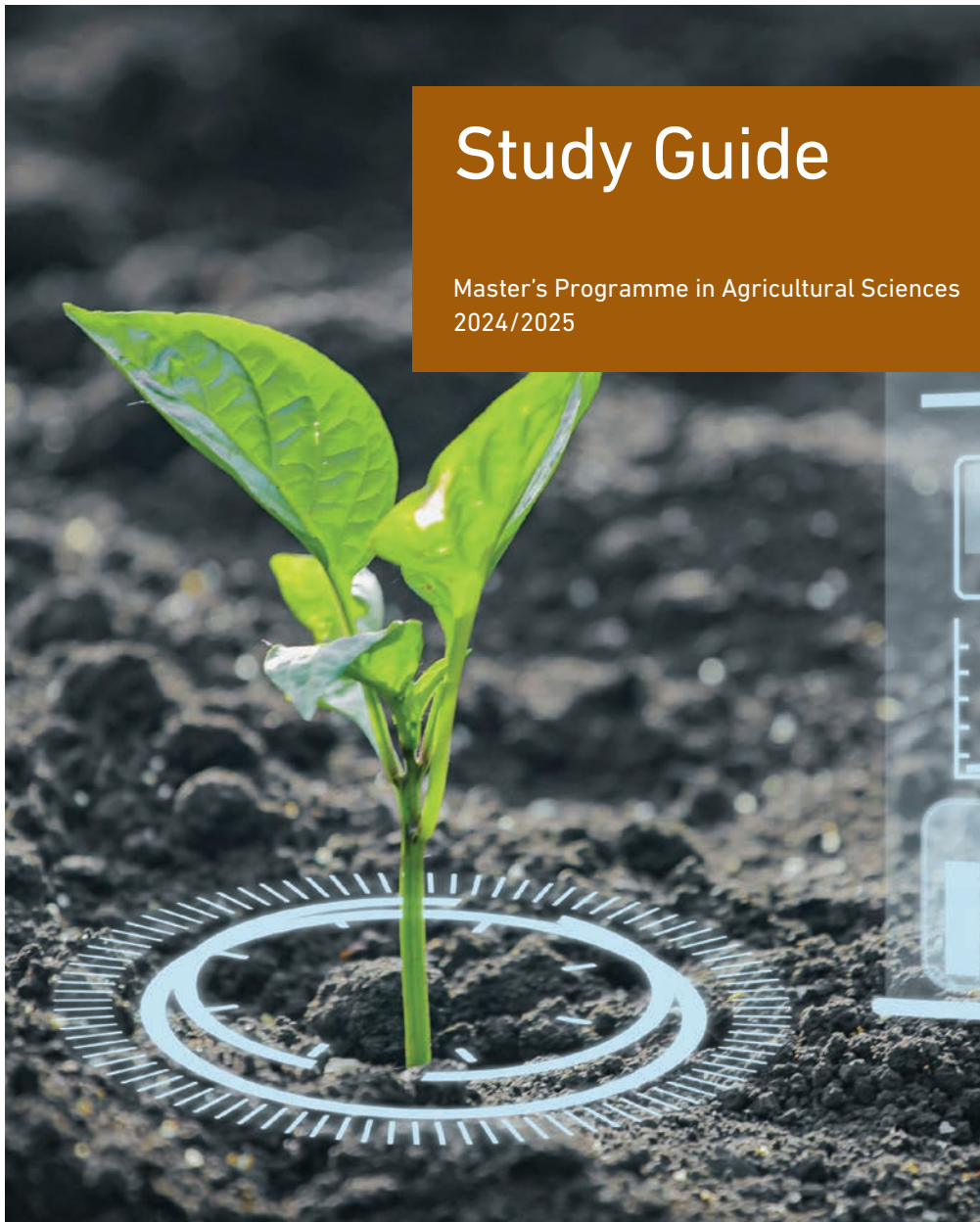


Study Guide

Master's Programme in Agricultural Sciences
2024/2025



This guide details the **2016 regulations for the Master's programme** in Agricultural Sciences.

The Study Guide includes the course list for the Master's programme in Agricultural Sciences.

The current course lists and all regulations can be downloaded from
www.usys.ethz.ch/studium/agrarwissenschaften/dokumente

Binding details on courses and exams are listed in the Course Catalogue,
www.course-catalogue.ethz.ch



Welcome!

Dear Agricultural Sciences students

Welcome to ETH Zurich. I am delighted that you have decided to study Agricultural Sciences. Did you know that well-managed agricultural systems not only produce high-quality food, but can also provide valuable so-called ecosystem services such as carbon sequestration, regulation of water flows in the landscape or greater biodiversity? Agricultural systems of the future will have to find an equilibrium between different functions such as income generation, food production and environmental services, and must also become more resilient to cope with changing environmental and economic contexts.



Throughout this degree programme, we aim to provide you with the foundational knowledge of modern sustainable agricultural sciences. By the end of your studies, you will be equipped to analyse various aspects of the world food system. This includes promoting sustainable resource management while developing tailored solutions for both local contexts, such as Switzerland, and other regions worldwide.

This brochure is designed to accompany you on your journey through the study programme. Its purpose is to guide you through your studies and assist you in various aspects, such as selecting the appropriate courses using subject lists, or finding the right contacts for administrative matters. Our aim is to provide you with guidance and answer the essential questions for your study planning.

I wish you an exciting and successful time as a student of Agricultural Sciences. I hope their incredible diversity will be inspirational for your studies.

Professor Emmanuel Frossard
Director of Studies for Agricultural Sciences

Table of contents

- 1 Overall Conditions and General Information 1**
 - 1.1 Regulations 1
 - 1.2 Admission 1
 - 1.2.1 Bachelor's degree in Agricultural Sciences at ETH Zurich 1
 - 1.2.2 Bachelor's degree in another discipline or from an international university 1
 - 1.2.3 Application periods and start 2
 - 1.3 Language of instruction in courses and examinations 2
 - 1.4 Evaluation of course units and exams 2
 - 1.5 Special study situations 2
 - 1.5.1 Studies and elite sport 2
 - 1.5.2 Studying with a disability/chronic illness 3
 - 1.5.3 Studying as a parent 3
 - 1.6 Course Catalogue, communication and myStudies 3
 - 1.7 Academic Calendar 4
 - 1.8 Excellence Scholarship and Financial Aid 4
 - 1.9 Teaching Assistants 5
 - 1.10 Code of Conduct 5



- 4 Student Exchange 17**
- 5 Master's Degree 18**
 - 5.1 Degree conferral 18
 - 5.2 Graduation Ceremony and awards 18

- 6 Credit System and Performance Assessment 19**
 - 6.1 Credit and grading system 19
 - 6.1.1 Credit system 19
 - 6.1.2 Grading system 19
 - 6.2 Performance assessments 20
 - 6.2.1 Session exams 20
 - 6.2.2 End-of-semester exams 20
 - 6.2.3 Graded or ungraded semester performance 21
 - 6.2.4 Communication of the result and review of grading 21

- 2 Master's Programme and Qualification Profile 6**

- 3 Master's Programme Structure 8**
 - 3.1.1 Majors 8
 - 3.1.2 Minors 10
 - 3.1.3 Electives 11
 - 3.1.4 Professional Internship 11
 - 3.1.5 Master's thesis 12
 - 3.2 Master's programme list of courses 2023/24 13



- 7 Continuing Education 22**
 - 7.1 Teaching Certificate 22
 - 7.2 Doctorate 22

- 8 Advice and Contacts 23**

- 9 Websites and Apps Relevant to the Study Programme 27**



1 Overall Conditions and General Information

1.1 Regulations

The legal basis for these guidance notes is the **Programme Regulation 2016** (German) for the Master's degree programme in Agricultural Sciences. You will find details of individual teaching events and performance assessments in the **Course Catalogue**, which are binding.

1.2 Admission

The admission criteria to the MSc programme in Agricultural Sciences are either a BSc degree in Agricultural Sciences from ETH Zurich or the completion of an equivalent qualification at ETH or a comparable higher-education institution.

1.2.1 Bachelor's degree in Agricultural Sciences at ETH Zurich

• Consecutive Study

You can enrol for the Master's programme once you require no more than 32 credit points (CP) to complete the Bachelor's degree.

A maximum of the following credits may still need to be completed in the following course unit categories:

- Agricultural Sciences fields 12 CP
- Bachelor's thesis 14 CP
- Electives 6 CP

Admission remains provisional until the Bachelor's degree is issued. Admission will be revoked if the BSc degree cannot be issued. You can start your studies either in the Autumn or Spring Semester.

• Entry to the Master's programme after a break

If you already have a Bachelor's degree in Agricultural Sciences from ETH Zurich and want to enter the Master's programme after a break (dematriculation), please contact **Academic Services**.

1.2.2 Bachelor's degree in another discipline or from an international university

If you do not have a BSc in Agricultural Sciences from ETH Zürich, you have to apply via the Admissions Office. You can find all the necessary information about the admission criteria and application procedure on the Admissions Office website: www.ethz.ch/en/studies/master/application.html

1.2.3 Application periods and start

If you have an international Bachelor's degree, you have to apply during the international application period in November. This is especially important if you need a visa to enter Switzerland. Additionally, you can only apply for the Excellence Scholarship & Opportunity Programme (ESOP, see section 1.8, "Financial Aid") during this application period.

If you have a Bachelor's degree from a Swiss university, you can apply in November and April. For details, please check the application schedule website of the Admissions Office: www.ethz.ch/en/studies/master/application.html

Non-agricultural or non-ETH BSc agricultural students may only start the programme in the Autumn Semester. If admitted to the Agricultural Sciences programme, you will receive an offer stating whether you need to complete additional courses (so-called additional requirements) to receive definite admission to the programme. Please note that admission is only provisional until you pass these additional courses. Please contact your Study Coordinator if you have any questions regarding your additional requirement courses.

1.3 Language of instruction in courses and examinations

The language of instruction of the course units and the corresponding performance assessments in the MSc programme in Agricultural Sciences is mainly English, as stated in the Course Catalogue for each course unit. You should check the language of instruction carefully, as a few are also offered in German.

1.4 Evaluation of course units and exams

To ensure ETH Zurich is able to maintain and improve the quality of teaching, students are periodically asked to complete an online survey to give their opinion of the quality of the course units and examinations in their study programme. Here we rely on your active participation by providing positive or negative feedback – both are equally important.

www.ethz.ch/staffnet/en/teaching/academic-support/teaching-evaluation

1.5 Special study situations

1.5.1 Studies and elite sport

ETH Zurich is committed to offering proven elite athletes feasible ways to combine studies and sport. The prerequisite for possible special arrangements is holding a Swiss Olympic Card (gold, silver, bronze, elite, or talent). International students who do not possess a Swiss Olympic Card cannot be granted elite sport status. In exceptional cases, for example if an athlete has been

selected for world or continental championships or the Olympic Games, an individual solution may be considered.

www.ethz.ch/en/studies/special-study-situations/top-level-sports

1.5.2 Studying with a disability/chronic illness

ETH Zurich aims to remove barriers and enable students with disabilities or chronic illnesses to study on an equal footing with others and with a high degree of autonomy. Students with a specific learning disability such as dyslexia or AD(H)D have the option, for example, of applying for special arrangements with regard to performance assessments. More information is available from the Disability Advisory Service.

www.ethz.ch/en/studies/special-study-situations

1.5.3 Studying as a parent

ETH Zurich offers parents many types of assistance in balancing family obligations and full-time studies.

www.ethz.ch/en/studies/special-study-situations

1.6 Course Catalogue, communication and myStudies

In the Course Catalogue www.vvz.ethz.ch you can find the scheduled hour and venue of all the courses, information about the course content, examinations and language of instruction. The information in this catalogue is binding.

The student portal [myStudies](#) covers most of the administrative topics concerning your studies at ETH Zurich. This is where you enrol for your programme each semester, sign up for the courses and register for exams, etc. After enrolling for your courses, myStudies will exhibit a timetable containing the lectures and exercises schedule.

When you enrol, you are given your personal ETH email address. Please make sure to read your emails regularly or forward them to another primary address you use. The central administra-

tion (Rectorate, Examinations Office, etc.) and the study administration in Agricultural Sciences will send you important information about exam registration, enrolment, etc. to this address. As soon as the message can be retrieved from the ETH email server the message is considered as "officially delivered".

1.7 Academic Calendar

Lectures take place during the Autumn Semester (HS: mid-September to the end of December) and the Spring Semester (FS: mid-February to the end of May/beginning of June).

The session examinations take place at the end of the semester break: in the winter session, this is in January and February, and in the summer session, this is in August and September.

End-of-semester examinations are scheduled for the end of the semester or the beginning of the lecture-free period. There are special deadlines for all exam registrations. This information can be found on myStudies and is also communicated to all students by Academic Services well in advance. www.usys.ethz.ch/en/news-events/academic-calendar

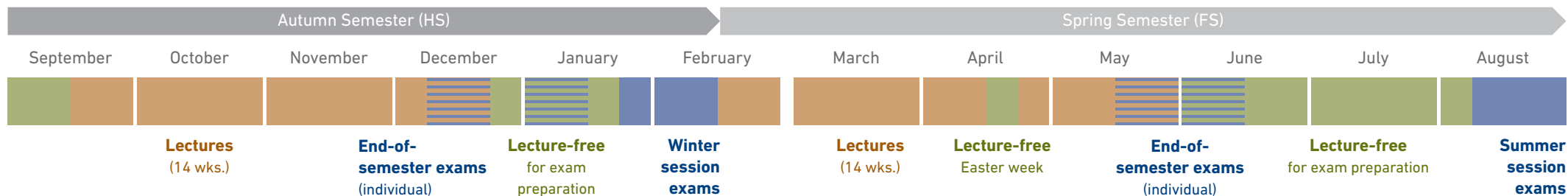
1.8 Excellence Scholarship and Financial Aid

The Excellence Scholarship & Opportunity Programme (ESOP) supports students with a scholarship, mentorship, and funding from a network of the ETH Foundation. The scholarship covers the full study and living costs during the Master's degree course.

www.ethz.ch/students/en/studies/financial/scholarships/excellencescholarship.html

Like any form of education, studying at ETH Zurich costs money. In addition to tuition fees and semester fees amounting to CHF 800, most importantly you also need to consider living costs. It is estimated that students spend CHF 16,000 to CHF 26,000 on study and living costs each year. It is primarily the responsibility of students and their families to finance studies. If your funds are insufficient, you can apply for a scholarship.

www.ethz.ch/en/studies/financial



1.9 Teaching Assistants

You may be able to work as a teaching assistant in our department. Simply contact the relevant professorships and ask whether there are currently any Hilfsassistentenstelle (HIWI) vacancies. These can also be found at www.jobs.ethz.ch/site/index. Positions for English-speaking students are scarce, and good knowledge of the German language is often an asset here. Please note that your workload in such a position must not exceed a maximum of 15 hours per week during the semester. If your nationality is not from an EU or EFTA country, you can only be employed as a teaching assistant six months after entering Switzerland (starting from the date on the residence permit).

www.ethz.ch/en/the-eth-zurich/working-teaching-and-research/welcome-center/before-you-arrive/teaching-assistant

1.10 Code of Conduct

At ETH Zurich, people of different genders, from different cultural backgrounds and with diverse abilities research, study and work together. This diversity is one of our strengths, but at the same time also a challenge. Mutual respect is needed wherever many people come together. The Code of Conduct serves as a guideline for how we want to treat each other at our university and clarifies the values we stand for.

www.ethz.ch/staffnet/en/employment-and-work/working-environment/living-respect



2 Master's Programme and Qualification Profile

Over a period of two years, the Master's programme provides students with in-depth academic knowledge of agriculture, in the field of long-term global food security and the sustainable use of natural resources. The maximum duration of study is four years. The Master's programme is mainly taught in English. To attain the Master's degree, you need to acquire 120 credits. The Master's degree is a professional qualification and offers access to the doctorate.

By choosing a major, you are able to define the focus of your personal education. Students interested in crop production choose the Plant Sciences major. In Animal Sciences, the focus is on the study of livestock. Economic aspects form the main component of the major in Agricultural Economics. You can shape your own educational profile by specifically choosing a minor that suits your individual wishes. You can choose different options from within each major and minor. This flexibility allows graduates to access a wide variety of occupational fields.

Qualification profile

1. Domain-specific knowledge and understanding

Graduates with a Master's degree in Agricultural Sciences

- possess process and system-oriented knowledge in one of the three specialisations Plant Sciences, Animal Sciences and Agricultural Economics;
- have detailed knowledge of agriculture, agroecosystems and world food systems and the associated ecological, social and cultural dimensions;
- are able to apply their broad basic understanding and specialist knowledge across a wide, networked professional environment.

2. Skills

a) Analytical skills

Graduates with a Master's degree in Agricultural Sciences

- are familiar with current subject-specific methods of data collection, analysis and modelling, and know how to approach and apply these and the respective results critically;
- are able to analyse the complex ecological, social, economic and ethical problems of the world food system.

b) Development skills

Graduates with a Master's degree in Agricultural Sciences

- are able to deploy appropriate methods to recognise future problems in agricultural systems and develop strategies for their solution;

- are able to reflect critically on established solutions, adapt them and help to implement them;
- are in a position to generate new specialist knowledge and are familiar with various methods of knowledge transfer.

3. Personal and social competences

Graduates with a Master's degree in Agricultural Sciences

- possess very good communication, discussion and management skills;
- operate successfully both alone and in a team;
- can operate at various levels to address trans- and interdisciplinary issues;
- are able to take decisions responsibly and to implement them;
- can present complex material clearly to both specialists and generalists and discuss it with them;
- are able to transfer knowledge from a local to a global context and back, with an eye to ethical responsibility and an economic approach.



A detailed description of the qualification profile can be found at:

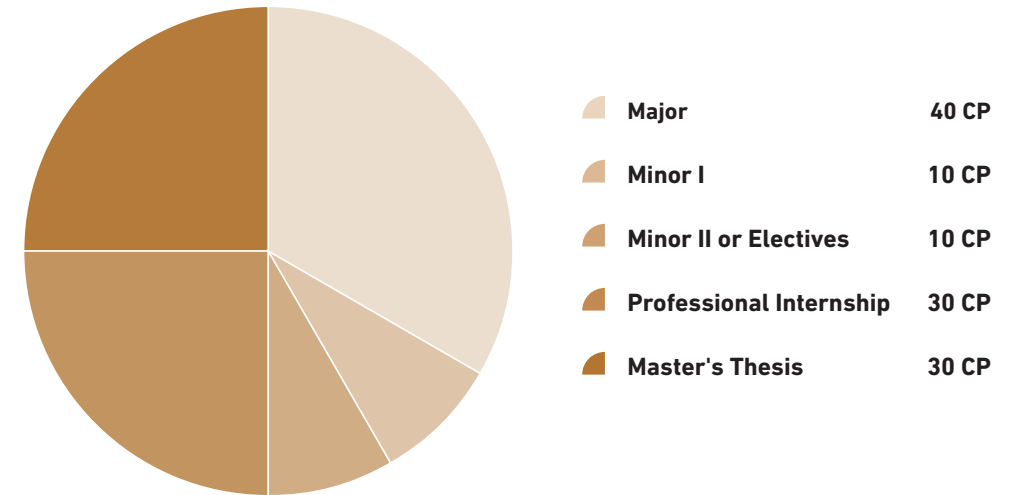
<https://go.ethz.ch/c>

For additional documents and information on the Master's programme, go to:

<https://usys.ethz.ch/en/studies/agricultural-sciences/documents/master.html>

3 Master's Programme Structure

The Master's programme comprises 120 credit points (CP): 40 credits for the major, 2 x 10 CP for the two minors or 1 minor and electives, 30 credits for the professional internship and 30 credits for the six-month Master's thesis.



3.1.1 Majors (40 credits)

The Master's programme offers three majors: **Animal Science**, **Plant Science** and **Agricultural Economics**. The major defines the specific subject and is divided into a disciplinary competence field and a methodological competence field. Specialised knowledge is summarised in the **disciplinary competence field (DK)**, the analytical & quantitative education and communication & presentation/technical skills are summarised in the **methodological competence field (MK)**.

You must achieve a prescribed minimum number of credit points (CP) in all areas of competence, and these must be supplemented by the choice of further subjects from the specialisation to 40 CP.

Categories and minimum number of credits to be earned in category

Category	Sub-category	Minimum number of credits
Animal Sciences		
DK		20
	Livestock Systems	10
	Livestock Biology	7
	Livestock Genetics	3
MK*		10
	Methods for Scientific Research	5
	Project Management in Scientific Research*	5
Plant Sciences		
DK		22
	Agronomy and Breeding	7
	Crop Health	7
	Agriculture and Environment	8
MK*		8
	Seminar in Plant Sciences	2
	Design, Analysis and Communication of Science*	6
Agricultural Economics		
DK		18
	Resource Economics and Agricultural Policy	6
	Decision Making and Management	6
	Development and International Policy	6
MK*		15
	Methods in Agricultural Economics	12
	Project Management and Communication*	3

*The "Agro-Food Projects" (751-1000-00) organised by the Master's programme plays a central role in the methodological competence field for all three majors and is recommended for all students. Applied issues are dealt with in teams, alongside students of Food Science. This course can be replaced by courses 751-5201-00 "Tropical Cropping Systems" or 701-1502-00 "Trans-disciplinary Case Study". However, only a limited number of places are available for these two courses.

3.1.2 Minors (1x or 2x 10 credits)

In the Master's degree programme, you benefit from a wide range of supplementary courses, i.e. minors. You can also take electives, which add further specialisation to your Master's studies.

In addition to the majors, you must choose the following:

- one minor subject and electives worth 10 credits each, or
- two minor subjects worth 10 credits each

The following 7 minors are available:**Minor Agricultural Economics and Policy (AEP)**

This minor offers students a deeper insight into the economic principles and drivers in the agricultural sector and the decision-making process of involved actors, ranging from farmers, consumers, up- and downstream industries and policymakers, focusing on both the Swiss and international context. The content of the minor is designed for agricultural students with a major in Animal or Plant Sciences to complement their study programme.

Minor in Animal Sciences (AnS)

A broad understanding of the role of livestock is relevant to solve the multitude challenges around the globe. This minor is designed for students majoring in Agricultural Economics and Plant Sciences, with an interest in systems of farm animals, their genetics, biology, reproduction, nutrition and related ecological issues.

Minor in Crop- and Grassland Science (CGS)

Crops and grassland form the foundation of our nutrition. The cultivation and breeding of those plants, as well as assessing the interaction of crops and grassland with the environment, are crucial to develop sustainable solutions for tackling the grand societal challenges that are the focus of the teaching programme for Agricultural Sciences. This minor is designed for students majoring in Agricultural Economics or Animal Sciences who want to broaden their knowledge of crop and grassland science.

Minor in Data Science and Technology in Agricultural Sciences (DSTA)

This minor offers the opportunity to acquire skills and knowledge in collecting, processing and analysing data, and provides insights into their use in precision farming, robotics and autonomous systems in agriculture. The content of this minor is specifically tailored to students with a background in agricultural sciences, enabling different specialisation options based on their prior knowledge.

Minor in Functioning of Soil Systems (FSS)

Soil is one of the most important resources for agricultural production. Preserving high-quality soils in agroecosystems and restoring degraded soils requires a broad understanding of soils

and their interaction with agricultural management, society and the environment. This minor is designed for students of all Agricultural Sciences Master's programmes with a particular interest in soils.

Minor in Safety and Quality in the Agri-Food Chain (AFC)

The Agri-Food Chain consists of many stakeholders and topic areas that are relevant for the global food supply chain. Maintaining high standards of safety and quality is of great importance across all steps of the value chain, from food production to processing. This minor is designed for students who are interested in both spectra of the food supply chain, with several of the courses offered for both Agriculture and Food Sciences.

Minor in Sustainable Agricultural Development (SAD)

Sustainable development and agriculture concerns the environmental, economic and social aspects of sustainable food systems, by analysing the potential interlinkages of these aspects to ensure food security for present and future generations. This minor is designed for students interested in global and local issues related to sustainable development agricultural and food systems, as well as inter- and transdisciplinary research, working in diverse teams and applying a wide range of skills and knowledge in research for development.

For details and the course list see: www.usys.ethz.ch/en/studies/agricultural-sciences/master/minors-electives

3.1.3 Electives (10 credits)

The electives allow you to adapt your educational profile to suit your own interests. You can choose electives from the entire range of courses offered at ETH Zurich and the University of Zurich (*Please note: registration for UZH modules: www.uzh.ch/cmsssl/en/studies/application/chmobilityin.html). Instead of electives, you can choose another minor.

3.1.4 Professional Internship (30 credits)

During the internship, you carry out a suitable, challenging task in a professional environment, working on a defined task or (partial) project in the field of agricultural sciences and applying the specialised knowledge acquired during your studies. In addition, you apply communicative, social, methodological and technical skills that are relevant to the labour market in your everyday work.

In general, the internship is conducted during the third semester of the Master's programme. You must complete it before the start of the Master's thesis. You can only complete it once you have enrolled in the Master's programme in Agricultural Sciences and have fulfilled all additional requirements.

The details are set out in the following regulations (German): [Reglement Berufspraktika](#)

3.1.5 Master's thesis (30 credits)

The Master's thesis represents the **culmination of the Master's programme** and is worth 30 credits. It is an academically independent thesis under the supervision of a lecturer from the Agricultural Sciences programme. Professors of D-USYS in Agricultural Sciences as well as certain lecturers are authorised to supervise the thesis.

The Master's thesis includes a written paper, an oral presentation and the design and presentation of a poster. The thesis supervisor determines the topic in consultation with the student. It is usually written on the same subject area as the student's major. It is a full-time project of approximately six months.

You must register your Master's thesis with the Student Administration Office before you begin. The Student Administration Office submits the registered theses (topic, main supervisor and co-supervisor) to the Department Conference for approval in accordance with the 2016 programme regulations.



You must meet the following requirements **before the start of the master's thesis**:

- ✓ Completed Bachelor's programme
- ✓ All requirements for admission to the Master's programme must be fulfilled
- ✓ At least 60 credits acquired in the Master's programme
- ✓ Internship completed

You can find all the details of the Master's thesis online at:

www.usys.ethz.ch/en/studies/agricultural-sciences/master/arbeit

3.2 Master's Programme list of courses 2024/25

Sem	LE	SWS	CP	Category / Subject	Major			Minor										
					AS	PS	AE	AEP	AnS	CGS	FSS	AFC	SAD	DSTA				
Internship																		
HS	FS	751-0210-00	P	30	Professional Internship	0	0	0										
Major Animal Science																		
Disciplinary Competences Livestock Systems ≥ 10 CP																		
HS		751-6501-00	4 G	4	Ruminant Science	D				X								
HS		751-6001-00	2 S	2	Forum: Livestock in the World Food System	D				X							X	
HS		751-2105-00	2 G	3	Political Ecology of Food and Agriculture	D												X
FS		751-6602-00	2 G	3	Pig Science	D				X								
FS		701-1604-00	2 G	3	Wildtierökologie und -management	D				X								
FS		751-7512-00	3 G	3	Advanced topics in farm animal behaviour and welfare	D				X								
FS		751-6802-00	1 G	2	Geflügelwissenschaften	D				X								
Disciplinary Competences Livestock Biology ≥ 7 KP																		
HS		751-7310-00	2 V	2	Bioactive Feed Compounds and Enriched Food Products	D												X
HS		751-6113-00	2 V	3	Endocrinology and Biology of Reproduction	D												
HS		701-0263-01	2 G	3	Seminar in Evolutionary Ecology of Infectious Diseases	D					X							
FS		751-7408-00	2 S	3	One Health	D				X								
FS		751-7800-00	3 G	3	Quality of Products of Animal Origin	D												X
Disciplinary Competences Livestock Genetics ≥ 3 KP																		
HS		751-6305-00	3 G	3	Livestock Breeding and Genomics (offered last time H524)	D												
HS		751-6243-00	2 V	2	Züchtung und Erhaltung tiergenetischer Ressourcen (Sem/B)	D				X								
FS		751-6244-00	3 G	3	Genomic Animal Breeding	D												X
Methodology Competences Methods for Scientific Research ≥ 5 KP																		
FS		751-7512-00	3 G	3	Advanced topics in farm animal behaviour and welfare	M				X								
HS	FS	751-6003-00	13 P	6	Training Course in Research Groups (Large)	M												
HS	FS	751-6003-01	6 P	3	Training Course in Research Groups (Small)	M												
HS		751-3801-00	2 G	3	Experimental Design & Applied Statistics in Agroecosystem Science	M	M	M										
Methodology Competences Project Management in Scientific Research ≥ 6 KP bzw. ≥ 7 KP bzw. ≥ 9 KP*																		
FS		751-1000-00	3 U	4	Praxisprojekte Agro-Food	M	M	M										X
HS		751-5201-10	2 G	5	Tropical Cropping Systems, Soils and Livelihoods	M	M	M		X	X							X
FS		701-1502-00	15 P	7	Transdisciplinary Case Study (TRS) (not offered in spring 2025)	M	M	M										X
HS		751-6001-00	2 S	2	Forum: Livestock in the World Food System	M				X								X
* mind. 6 KP bei Wahl IPA; mind. 7 KP falls TrCS gewählt wird; mind. 9 KP falls TRS gewählt wird																		

Sem	LE	SWS	CP	Category / Subject	Major			Minor										
					AS	PS	AE	AEP	AnS	CGS	FSS	AFC	SAD	DSTA				
Major Plant Sciences																		
Disciplinary Competences Agromony and Plant Breeding ≥ 7 KP																		
HS		751-4104-00	2 V	2	Alternative Crops		D				X						X	
HS		751-3603-00	2 G	2	Current Challenges in Plant Breeding (B)		D				X							
HS		751-4704-00	2 G	3	Weed Science		D				X							
FS		751-4204-00	2 G	2	Horticultural Science: Case Studies		D				X						X	
FS		751-4106-00	4 G	4	Crop Phenotyping		D				X							X
FS		751-3606-00	2 G	3	Molecular Plant Breeding		D				X							X
Disciplinary Competences Crop Health ≥ 7 KP																		
HS		751-5121-00	2 V	2	Insect Ecology		D											
HS		751-4811-00	2 G	2	Alien Organisms in Agriculture		D				X							
HS		701-0263-01	2 G	3	Seminar in Evolutionary Ecology of Infectious Diseases		D											
HS		751-4506-00	2 G	2	Pflanzenpathologie III		D				X							
FS		751-5110-00	2 V	2	Insects in Agroecosystems		D				X							
FS		751-4904-00	2 G	2	Microbial Pest Control		D				X							
FS		751-4512-00	2 G	2	Pflanzenpathologie IV: System-Management im modernen Pflanzenschutz		D				X							
FS		751-4902-00	2 V	2	Modern Pesticides – Mode of Action, Residues and Environmental Fate		D				X						X	
Disciplinary Competences Agriculture and Environment ≥ 8 KP																		
HS		751-5101-00	2 G	3	Biogeochemistry and Sustainable Management		D				X							
HS		751-3405-00	4 G	4	Chemical Nature of Nutrients and their Availability to Plants: The Case of Phosphorus (offered last time autumn 2024)		D					X						
HS		751-5125-00	2 G	2	Stable Isotope Ecology of Terrestrial Ecosystems (B)		D					X						
FS		751-3404-00	4 G	4	Nutrient Fluxes in Soil-Plant Systems: The Case of Nitrogen		D				X	X						
FS		751-5102-00	2 G	3	Biogeochemical Modeling of Agroecosystems		D				X							X
FS		751-5118-00	2 G	2	Global Change Biology		D				X							
FS		751-5127-00	2 G	2	The Microbiome of the Plant-Soil System: Part I		D				X	X						X
FS		751-5127-01	1 P	1	The Microbiome of the Plant-Soil System: Part II (B)		D				X	X						X
Methodology Competences Seminar in Plant Sciences ≥ 2 KP																		
HS		751-5115-00	1 S	2	Current Aspects of Nutrient Cycles in Agro-Ecosystems (B)		M				X	X						
HS		751-4003-01	2 S	2	Current Topics in Grasland Sciences (autumn)		M				X							
HS		751-2105-00	2 G	3	Political Ecology of Food and Agriculture		M											X
FS		751-4805-00	2 S	3	Recent Advances in Biocommunication		M											
FS		751-5001-00	2 S	3	Agroecologists without Borders		M											X
FS		751-4003-02	2 S	2	Current Topics in Grasland Sciences (spring)		M				X							
Methodology Competences Design, Analysis and Communication of Science ≥ 7 KP bzw. ≥ 8 KP bzw. ≥ 10 KP**																		
FS		751-1000-00	3 U	4	Praxisprojekte Agro-Food		M	M	M									X
HS		751-5201-10	2 G	5	Tropical Cropping Systems, Soils and Livelihoods		M	M	M			X						X
FS		701-1502-00	15 P	7	Transdisciplinary Case Study (TRS) (not offered in spring 2025)		M	M	M									X
HS		751-3801-00	2 G	3	Experimental Design and Applied Statistics in Agroecosystem Science		O											
**mind. 7 KP bei Wahl IPA; mind. 8 KP falls TrCS gewählt wird; mind. 10 KP falls TRS gewählt wird																		

Sem	LE	SWS	CP	Category / Subject	Major			Minor										
					AS	PS	AE	AEP	AnS	CGS	FSS	AFC	SAD	DSTA				
Major Agricultural Economics																		
Disciplinary Competences Ressource Economics and Agricultural Policy ≥ 6 KP																		
HS	701-1651-00	3 G	6	Environmental Governance			D											
HS	751-2903-00	2 G	3	Evaluation of Agricultural Policies			D	X										
FS	363-0552-00	2 G	3	Economic Growth and Ressource Use			D											
FS	701-1653-00	2 G	3	Policy and Economics of Ecosystem Services			D							X				
FS	751-2904-00	2 A	3	Current Topics in Agricultural Economics and Policy			D	X										
Disciplinary Competences Decision Making and Management ≥ 6 KP																		
HS	751-2205-00	2 G	2	Management für Unternehmen der Agrar- und Ernährungswirtschaft II			D	X										
HS	363-0403-00	2 G	3	Introduction to Marketing			D											
HS	363-0387-00	2 G	3	Corporate Sustainability			D											
FS	363-0560-00	2 V	3	Financial Management			D											
FS	752-2123-00	2 V	3	Risk Awareness, Risk Acceptance and Trust			D											
FS	752-2121-00	2 G	2	Consumer Behaviour II			D	X										
FS	751-1555-00	2 G	3	Empirical Agricultural Economics			D	X										
FS	363-1080-00	2 G	3	Power and Leadership			D											
Disciplinary Competences Development and International Policy ≥ 6 KP																		
HS	751-2103-00	2 V	2	Socioeconomics in Agriculture			D	X										
HS	860-0023-00	2 V	3	International Environmental Politics			D											
HS	751-2105-00	2 G	3	Political Ecology of Food and Agriculture			D								X			
HS	851-0626-01	2 V	2	International Development Cooperation (not offered in autumn 2024)			D	X							X			
FS	751-2102-00	2 V	3	History of Food and Agriculture			D	X										
FS	701-1580-00	1 V	3	Environmental and Agricultural Regulation: Law and Governance			D	X							X			
FS	751-2402-00	2 G	2	Agrarhandelsabkommen			D	X										
Methodology Competences Methods in Agricultural Economics ≥ 12 KP																		
HS	751-0423-00	2 G	3	Risk Analysis and Risk Management in Agriculture			M	X										
HS	751-1573-00	2 V	3	Dynamic Simulation in Agricultural and Regional Economics			M	X										
HS	363-0565-00	2 V	3	Principles of Macroeconomics			M											
HS	363-0305-00	2 G	3	Empirical Methods in Management			M	X										
HS	363-0585-00	2 V	3	Intermediate Econometrics			M											
HS	363-0541-00	3 G	3	Economic Dynamics and Complexity			M											
HS	401-0647-00	2 V + 1 U	5	Introduction to Mathematical Optimization			M											
HS	363-1137-00	2 V	3	Applied Econometrics in Environmental and Energy Economics (not offered in autumn 2024)			M											
HS	363-1017-00	2 G	3	Risk and Insurance Economics			M											
FS	751-1575-00	1 V	3	Applied Optimization in Agricultural Economics			M	X										
FS	363-1000-00	2 V	3	Financial Economics			M											
Methodology Competences Project Management and Communication ≥ 4 KP																		
FS	751-1000-00	3 U	4	Praxisprojekte Agro-Food	M	M	M										X	
HS	751-5201-10	2 G	5	Tropical Cropping Systems, Soils and Livelihoods	M	M	M				X					X		
FS	701-1502-00	15 P	7	Transdisciplinary Case Study (TRS) (not offered in autumn 2024)	M	M	M										X	

Sem	LE	SWS	CP	Category / Subject	Major			Minor										
					AS	PS	AE	AEP	AnS	CGS	FSS	AFC	SAD	DSTA				
Additional Minor Courses																		
FS	751-2700-00	2 G	2	Bodenmarkt und Bodenpolitik						X								
HS	752-2307-00	2 V	3	Nutritional Aspects of Food Composition and Processing (HS)											X			
HS	752-2122-00	2 V	2	Food and Consumer Behaviour												X		
FS	751-7800-00	2 V	2	Qualität tierischer Produkte												X		
FS	752-1202-00	2 G	3	Lebensmittelsicherheit und Qualitätsmanagement												X		
FS	752-3024-00	2 G	2	Hygienic Design												X		
FS	752-4010-00	1 G	3	Problems and Solutions in Food Microbiology												X		
FS	751-5500-00	2 G	2	Simulations and Sensors in Agri-Food Supply Chains												X		X
HS	701-0533-00	2 G	3	Boden- und Wasserchemie											X			
HS	701-0535-00	2 G + 1 U	3	Environmental Soil Physics/Vadose Zone Hydrology											X			
HS	701-1343-00	2 V	3	Soil-Plant Water Relations											X			
FS	701-0524-00	2 V	3	Bodenbiologie											X			
FS	701-0518-00	2 G	3	Bodenressourcen und Global Change											X			
FS	701-1646-00	3 G	5	Carbon and Nutrient Cycling under Global Change											X			
FS	701-0998-00	2 G	3	Environment and Human Health Risk Assessment of Chemicals													X	
FS	751-0025-00	6 P	4	Design Ideas for Sustainable Food Systems (B)													X	
FS	751-1652-00	2 G	2	Food Security - from the Global to the Local Dimension													X	
HS	751-5003-00	2 V	2	Sustainable Agroecosystems II													X	
FS	701-0900-00	2 G	2	The Sustainable Development Goals in Context														X
HS	701-3001-00	2 G	2	Environmental Systems Data Science: Data Processing														X
HS	701-3003-00	2 G	3	Environmental Systems Data Science: Machine Learning														X
HS	401-6215-00	1 G	1.5	Using R for Data Analysis and Graphics (Part I)														X
HS	401-6217-00	1 G	1.5	Using R for Data Analysis and Graphics (Part II)														X
HS	751-5510-00	2 G	3	Introduction to Agricultural Robotics														X
HS	701-0951-00	2 G + 3 P	5	GIST - Einführung in die räumlichen Informationswissenschaften und -technologien														X
HS	651-4031-00	4 G	3	Geographic Information Systems														X
HS	651-2338-00	2 V + 3 U	5	Fernerkundung und Geographische Informationswissenschaft III (Universität Zürich)*														X
HS FS	UZH-Module			GEO 113; GEO 243, ESS 341: Details auf der Website des Studiengangs *														X

Legend:

HS: autumn semester
 FS: spring Semester
 Sem: semester
 LE: course unit
 CP: credit point
 SWS: weekly semester hour
 V: lecture
 G: lecture with exercise
 U: exercise
 S: seminar
 P: internship
 D: disciplinary competences
 M: Methodology Competences
 O: compulsory courses
 B: block courses

Majors:

AS: Animal Science
 AE: Agricultural Economics
 PS: Plant Science

Minors:

AEP: Agricultural Economics and Policy
 AFC: Safety and Quality in Agri-Food Chain
 AnS: Animal Science
 DSTA: Data Science and Technology for Agricultural Science
 CGS: Crop- and Grassland Science
 FSS: Functioning of Soil Systems
 SAD: Sustainable Agricultural Development

4 Student Exchange

A semester abroad is only possible during MSc studies if you have acquired an ETH BSc degree in Agricultural Sciences with good or above-average grades. You can acquire up to 30 CPs during the student exchange. In all cases, you must agree the exchange programme with the departmental exchange coordinator before the start of the exchange semester and this must be approved by the person responsible for your major. Details can be found at:

www.usys.ethz.ch/en/studies/agricultural-sciences/austausch.html

5 Master's Degree

5.1 Degree conferral

A minimum of 120 credits must be acquired before you can apply for the degree to be conferred. If the requirements are met, you may apply via the Student Administration Office.

You must prepare, print and sign your application via myStudies and submit it in person, by post, or email, to the Student Administration Office. When you graduate, you will receive a final statement of grades listing the courses for which you selected "Certificate" in your degree application, up to a maximum of 130 credits. Additional courses will be listed on the addendum of your degree certificate. The overall average grade (GPA) is calculated as a weighted average of the individual grades in the certificate.

The degree certificate and the diploma will be sent by registered mail. From the date of issue onwards, you can use the title:

Master of Science ETH in Agricultural Sciences (MSc ETH Agr. for short)

The degree certificate you receive comprises:

- ✓ Degree Certificate (in German, French or Italian)
- ✓ Academic record (inc. grades and CPs)
- ✓ Ranking information (bilingual German/English document)
- ✓ Diploma supplement (describing the educational system and containing a list of your courses with a short description of the content).

5.2 Graduation Ceremony and awards

Students graduate with distinction if they achieve an overall GPA (see section 5.1 for calculation) of 5.75 or higher. The "Willi Studer Prize" is awarded to the student with the highest overall GPA within one cohort of graduates. The ETH Medal can be awarded for outstanding Master's theses if nominated by the supervisor of the thesis and the award committee of the Study Programme in Agricultural Sciences. Both prizes are awarded at the annual Master's degree graduation ceremony.

The graduation ceremony takes place once a year; usually between May and June. Students will be invited to the ceremony and may bring along their relatives and/or friends. For dates and more details see [Graduation ceremony – Department of Environmental Systems Science](#).

6 Credit System and Performance Assessment

6.1 Credit and grading system

6.1.1 Credit system

The study is based on a credit system according to the European Credit Transfer System (ECTS). The credit points (CP) describe the average workload necessary for the completion of a course. One CP corresponds to 25 to 30 hours of work. The total workload per semester studying full-time is 30 CPs on average. The regular duration of studies is four semesters, with a total of 120 CPs.

6.1.2 Grading system

The grading scale ranges from 1.0 (lowest mark) to 6.0 (highest mark); the pass mark is 4.0. The increment is 0.25 for graded performance assessments. Ungraded performance assessments are graded with "pass" or "fail". CPs are only awarded for passed performance assessments. The overall GPA is displayed with two decimal places and calculated as the weighted (CP) average of all graded performance assessments.



6.2 Performance assessments

Performance assessments are either organised in individual exams or in block exams. To pass an individual exam, you have to achieve a grade of at least 4.0. Block exams are not offered during the Agricultural MSc studies. You can repeat every performance assessment once. Passed performance assessments cannot be repeated. Once a performance assessment has been failed twice, the course counts as definitely not passed.

At ETH Zurich three different types of exams are offered: session examinations, end-of-semester examinations and semester performances. The modality of each exam is defined in the Course Catalogue. Once the semester has started, the modalities (language, mode [oral or written], aids, etc.) are fixed and binding for all parties.

<https://rechtssammlung.sp.ethz.ch/Dokumente/322.021en.pdf>

6.2.1 Session exams

- You must register for these examinations using myStudies.
- Dates are announced by the Examinations Office. Exams are listed in your personal examination plan in myStudies.
- This type of performance assessment must be carried out as part of the examination sessions which are held twice a year.
- Graded
- Written or oral
- Repetition usually possible without re-enrolling

6.2.2 End-of-semester exams

- You must register for these examinations using myStudies.
- The examination dates are announced by the lecturer. Exams are listed in your personal examination plan in myStudies.
- This type of performance assessment is carried out during the last two weeks of a semester or during the first two weeks of the semester vacation.
- Graded
- Written or oral
- Repetition: If it is possible to repeat a performance assessment without having to re-enrol in a course, you will be offered a repetition date, generally at the start of the following semester. These dates are also announced by the lecturers and listed in myStudies as soon as students are registered for the repetition exam. You must register for such a repetition date using myStudies; this is only possible once the result of your first attempt has been officially published by the Study Administration Office.

6.2.3 Graded or ungraded semester performance

- The lecturer will inform you at the start of the course about the type of performance assessment, the material to be assessed as well as about the type of assessment (e.g. active participation in internships and excursions, written work, presentation, duration and language).
- A semester performance may be graded or ungraded.
- No separate registration is required for this type of performance assessment. However, you must enrol in the respective course unit using [myStudies](#).

More details on the forms of assessment can be found at:

www.ethz.ch/students/en/studies/performance-assessments/examination-types.html

6.2.4 Communication of the result and review of grading

After the correction and submission of the result by the lecturer, the study administration decrees the result. Subsequently you will receive an email with the message that you can view the result of one or several exams in myStudies. Please check the transcript of records in myStudies. If the performance is not assigned automatically to the correct category (this also depends on how the exam registration was carried out by you), please correct the category. If this is not possible, please contact the study administration agr_science@ethz.ch.

You have the right to review the grading of written exams as regulated by a directive of the rector. After the result for a written exam has been published, the lecturer will likely propose a date for the grading review within the following three weeks. Please keep to this date if you are interested in reviewing the exam. If no central review session is organised, you may arrange an individual appointment with the lecturer up until half a year after the grade was decreed.



7 Continuing Education

7.1 Teaching Certificate

The ETH Zurich Teaching Certificate in Agricultural Sciences is recognised throughout Switzerland and is accredited by the State Secretariat for Education, Research and Innovation (SERI). SERI's recognition is limited to the following two categories of individuals responsible for vocational education and training:

- **Teachers in secondary professions at colleges/universities**
- **Teachers in secondary professions at vocational schools for vocational training** (Berufskundeunterricht, BKU), provided that proof of professional experience of at least six months is also provided.

The degree is also a good basis for teaching within various organisations, federal offices and companies. The training comprises 24 credits. The certificate is issued only upon successful completion of the Teaching Certificate and the Master's degree in Agricultural Sciences.

Further information can be found online at:

www.ethz.ch/en/studies/teacher-training

7.2 Doctorate

Doctoral studies are carried out in a research group and consist of a combination of research activities and studying as well as, in some cases, a small teaching workload. A doctorate at D-USYS lasts three to four years, on average.

In principle, all university graduates with a university diploma or Master's degree may apply. You must have a supervisor for your doctoral thesis in order to be admitted.

A doctorate at the Institute of Agricultural Sciences provides access to top-level research and qualifies students for an academic career. The prerequisite for admission to a doctorate is a very good Master's degree.

Further information on the process and application procedure for doctoral studies can be found at

www.usys.ethz.ch/en/doctorate

8 Advice and Contacts

Study Office

Student Counselling Agricultural Sciences

Student counselling, curriculum design, scheduling, consultation mobility, and requests for postponement of military service

Emma Lindberg, ETH Zurich, Campus Center, LFW C 13.1
phone 044 632 38 93
E-Mail: emma.lindberg@usys.ethz.ch

Study Administration

Administration of Master's thesis, Master's degree certificates and performance assessments, advice on military and civil service deferrals

ETH Zurich, Campus Center, LFW C 13.1
E-Mail: agr-sciences@usys.ethz.ch

Opening hours: Mo + Tue + Thu 1 pm – 4 pm

Academic Services

Registrar's Office

Enrolment at ETH, leave of absence, tuition fees, personal information (which you are not able to change via myStudies), etc.

ETH Zurich, Campus Center, HG F 19, phone 044 632 30 00
E-Mail: kanzlei@ethz.ch
www.ethz.ch/students/en/studies/administrative.html

Examinations Office

ETH Zurich, Campus Center, HG F 18.1, phone 044 632 20 68
E-Mail: exams@ethz.ch

Desk opening hours: Mon + Thu 11 am – 1 pm

Exchange

Student Exchange Office

ETH Zurich, Campus Center, HG F 23.1, phone 044 632 61 61
E-Mail: exchange@ethz.ch

Advice for Agricultural Exchange (incoming/outgoing)

Emma Lindberg, ETH Zürich, Campus Zentrum, LFW C 13.1
E-Mail: emma.lindberg@usys.ethz.ch

Student Services

Counselling & Coaching Centre (StS)

The StS offers a wide range of counselling services and various support offers for prospective students and students.

Patricia Pellicer Aguin, ETH Zürich, Campus Center, HG F 67.3
phone 044 632 75 21
E-Mail: patricia.pellicer@sts.ethz.ch
www.ethz.ch/students/en/counselling

Psychological Counselling Services University/ETH Zurich

ETH Zurich, Plattenstrasse 28, 8032 Zurich
phone 044 634 22 80
E-Mail: pbs@ad.uzh.ch
www.pbs.uzh.ch/en

Financial Aid Office ETH Zurich

ETH Zurich, Campus Center, HG F 22.1
phone 044 632 20 40 / 20 88
E-Mail: studienfinanzierung@sts.ethz.ch
www.ethz.ch/students/en/studies/financial/scholarships

Association of students **VSETH**

VSETH, the Association of Students at ETH, represents all students at ETH. It organises a wide range of facilities and assistance for studying at ETH Zurich.

www.vseth.ethz.ch

Association of students **VIAL**

VIAL is the student association of Agricultural Sciences (D-USYS) and Food Sciences (D-HEST) students. It is a branch of the VSETH Association of Students at ETH.

www.vial-ethz.ch

Sport Association **Academic Sport Association Zurich (ASVZ)**

The ASVZ offers all university members an attractive and varied sports programme, which offers plenty of opportunities to discover new activities, but also includes old favourites. The ASVZ is all about people, the joy of exercise, fitness, work/study balance and improving the quality of life.

www.asvz.ch/en/634-welcome-asvz

Student help line **Night Line**

Night Line Zurich is an independent help line from students for students of ETH, UZH and other academic institutions in Zurich. All requests are handled confidentially and anonymously.

phone 044 633 7777
E-Mail: info@nightline.ch
www.nightline.ch



9 Websites And apps Relevant to the Study Programme

The following sources of information are also recommended for general information on studying at ETH Zurich and for designing study plans:

D-USYS website – Study programme Agricultural Science

A range of general information on the study programme.

www.usys.ethz.ch/en/studies/agricultural-sciences

myStudies

Students use “myStudies” to manage their studies.

www.mystudies.ethz.ch

Academic calendar

Whit all the important dates for students about semesters and examinations.

www.usys.ethz.ch/en/news-events/academic-calendar

Course Catalogue

An updated Course Catalogue, with information on content, objectives, performance assessments, etc. relating to all courses offered at ETH Zurich can be accessed via this link.

www.vorlesungen.ethz.ch/Vorlesungsverzeichnis/sucheLehrangebotPre.view?lang=en

myPath

myPath is a catalogue for extracurricular activities and initiatives at ETH Zurich.

www.mypath.ethz.ch

Moodle

Moodle is ETH's central teaching platform.

www.ethz.ch/students/en/studies/academic-support/web-based-platforms/moodle-for-students.html

EduApp

Central app with news, events, buildings overview, search for people, gastronomy services, etc.

www.ethz.ch/students/en/studies/academic-support/web-based-platforms/eduapp-for-students.html

Administrative

Here you will find all kinds of information on general administrative matters.

www.ethz.ch/students/en/studies/administrative

Food at the ETH and campus catering

www.ethz.ch/en/campus/getting-to-know

Locations

ETH Zurich has two main campuses. ETH Campus Center is located in the centre of Zurich city, close to the main railway station. ETH Campus Hönggerberg is located at a distance of a 20-minute bus ride on the outskirts of Zurich city. The “ETH Link” shuttle bus service connects the two campuses and brings you from either campus to the other. The bus travels three to four times per hour between the two main campuses. Lectures are held at both sites, but most lectures offered by the USYS take place in the Zentrum campus.

www.plan.ethz.ch

International Student Support

If you have done your BSc studies in another country, our international student support office can help you with various questions regarding immigration, visa, housing, insurance, etc. They offer many different introductory events at the beginning of the Autumn Semester, when most international students start their studies. Please check the handbook for more information.

[Handbook for International Students](#)



Publisher: Department of Environmental Systems Science, Agricultural Sciences Programme

Text & Editing: Petra Gallaun-Schirgi, Emma Lindberg

Layout: Karin Frauenfelder

Photos: Cover Leonid/stock.adobe.com, content ETH Zurich, pexels

Print: Print + Publish

© ETH Zurich, July 2024