# AVETH Ph.D. Survival Guide

Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

# Welcome to ETH!





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# Preface and Introduction

# **Greetings from the Rector and President**

A Ph.D. is research at the cutting edge of science and technology and proves that you can complete a project on your own in a given time. Furthermore, it is also a teaching experience where you learn to explain the basic principles of science to the next generation of undergraduate students.

While you are asked to "fly high" in science and explore unknown territory – a modern form of adventure – you need a solid foundation to build upon, a private infrastructure, friends and colleagues in a similar situation, and if you come from abroad some help to understand and settle into Swiss culture.

The AVETH took the initiative to write this Survival Guide to support you during this new period of your life. It offers answers to many questions, points out various pitfalls and offers practical advice on avoiding them.

ETH Zurich offers excellent working conditions in your field of interest: an innovative and competitive atmosphere, state-of-the-art laboratories and work areas, and an environment that promotes access to the world's best scientists, engineers, architects and mathematicians. Becoming a member of this exclusive club of specialists is simply a must.

A career both in academia and, even more importantly, the business world requires additional aptitudes: social skills, understanding the language of other disciplines and assuming responsibility for our society. To acquire these skills ETH offers you a myriad of opportunities to attend lectures, seminars and workshops in your own field of research, related areas, social sciences and the humanities both at ETH and the neighboring University of Zurich.

You should also remember the importance of physical fitness and take advantage of the many facilities available to pursue sports and music or join some of the many clubs and associations. This stimulates your imagination and helps you to start networking with colleagues from other disciplines.

In a few years' time, you will hold a highly reputable degree in your hands, a degree that not only proves that you "survived" ETH Zurich, but also that you are able to understand and solve some of the complex problems of our world and have learnt to move in an international culture with confidence.

We wish you well as you embark on this exciting and challenging period of your life.

Ralph Eichler

R. Eichler

ETH President

Heidi Wunderli-Allenspach

H Hamded Allempad

ETH Zurich Rector

# **Greetings from the AVETH team**

Dear Ph.D. student, Dear Ph.D. candidate,

You are starting a new phase in your life. You have graduated and are interested in research – congratulations! And you are considering or have already started a Ph.D. at ETH Zurich, the Swiss Federal Institute of Technology. The next few years will be packed with thrilling topics surrounding your research, contacts with other researchers, international conferences and new friendships. At the same time however, you may be new to ETH Zurich, Zurich itself or even Switzerland. Things might seem complicated to you. In fact, with approximately 10'000 students and 7'000 employees ETH Zurich may seem like a giant labyrinth at first.

Consequently, the AVETH team has decided to create this Survival Guide. AVETH is the association of scientific staff at ETH Zurich, representing all Ph.D. students, post-docs and senior researchers. We are responsible for the political representation of rights and interests, organizing social activities and offering consulting services.

This book is designed to help doctoral students discover the objectives, possibilities and consequences of being an ETH-Zurich employee, researcher and teaching assistant. It will provide you with information about both ETH Zurich and writing your Ph.D. thesis, but also offer practical hints and support.

The survival guide is organized according to the timeline of a typical Ph.D. thesis, starting with the choice of supervisor, the application and registration process. It provides hints on moving to Switzerland from abroad, finding accommodation and starting your project. It also contains information on how to become involved in ETH-Zurich life, be active or free-time activities.

We are very happy to present you the third edition of the Survival Guide. The first edition was published in 1998 after a survey revealed the need for a handbook for Ph.D. students. In only three years, the first edition was out of printed copies. Consequently, it was decided to release a second edition with more chapters and additional content in 2002. In 2011, once again it was high time we updated the content and extended the scope of the guide. The current AVETH team would like to thank all previous participants and volunteers who put so much work into the guide.

From our side, we would like to wish you all the best for a successful research career and a wonderful time at ETH.

The AVETH board



# Why choose ETH Zurich?

There are numerous reasons why one would want to pursue a Ph.D. – some of which seem more advisable than others.

It is definitely true that a Ph.D. open up carrier paths that would not be accessible without a post-graduate degree. The title is essential if one wants to stay in academia on the path to a senior researcher position or even a professorship. It is also useful if one is looking to move into industrial research.

But make no mistake: a Ph.D. usually takes between three and six years of work, during which you are bound to struggle at one point or another. Compared to your previous degrees, you cannot rely on prepared material to learn from and simply pass examinations. Instead, a Ph.D. takes a great deal of self-motivation and definitely means a lot of work and constant self-reevaluation. Hence, our only recommendation is to choose a subject that you are actually really interested in and a supervisor with whom you feel to have a good relationship. Your field of research should solely depend on your personal preferences. To complete a Ph.D. requires a high level of personal interest and commitment. Any attempt to foresee what kind of scientific specialization will provide you with an advantage on the job market after your Ph.D. is clearly legitimate, but often proves difficult. We have included a whole section on carrier advice after the Ph.D. in the chapter entitled [CARRIERADVICE].

Once you have decided to do a Ph.D., the next step is the choice of the university and research group. Many different factors will contribute to this decision, such as the reputation of the university and the group, the availability of a position, the city and country in which the university is located, and, of course, personal ties with a specific location and the distance from one's friends and family.

Whereas the last item in the list is not to be ignored, it remains a personal contribution factor. However, it is safe to say that ETH Zurich is a wonderful place to do a Ph.D. on account of the excellent working atmosphere, working conditions and research, not to mention the city of Zurich as a place to live.

ETH Zurich often features in the top ten or twenty of international university rankings, especially in the fields of architecture, natural sciences and

engineering [1-3]. Its many departments, institutes and professors practically cover the full gamut of research in the aforementioned disciplines, allowing for a fluent interdisciplinary exchange and innovative scientific projects.

The city of Zurich is in a prime location on Lake Zurich with the Alps right on the doorstep, allowing for skiing, sailing, hiking and many more outdoor activities. The city itself is also a well-known international financial center. Hence, there is no lack of restaurants, bars, shops and, of course, excellent transport connections via the airport and the world-famous Swiss railroad system. We will provide more details and hints on the city in the section [ZURICHINFO].

- [1] www.topuniversities.com
- [2] www.timeshighereducation.co.uk/world-university-rankings/2010-2011/engineering-and-it.html
- [3] www.arwu.org

# Ph.D. Motives and Implications

Reflections on Surviving by Professor Nowotny

How to Become a Researcher: Professional Identities in the Making

Nobody is born a researcher; you have to become one. Studying for a Ph.D. will probably be the last, but most decisive stage in the life of a young person who wants to devote him- or herself to the organized search for a greater understanding of the natural and social world. This includes the ability to produce, control and manipulate new phenomena, instruments and other artifacts.

Studying for a Ph.D. is the crucial phase in which a professional identity is formed and when socialization takes place. Up to this point, much of one's life has already been dedicated to learning. However, the previous experience differs from what happens now. For the first time, Ph.D. students are challenged to actively intervene in the observation and manipulation of a physical reality. In the previous stages of their education, students had to show their mastery of the content of an object world and the appropriate methods for examining it, essentially by digesting knowledge that had been didactically prepared for them. They learned how to put it to use. But in order to do so, the problems had to be carefully defined and purposefully selected

by their teachers. In general, solutions were known, the conceptual frameworks of reliable knowledge were given, and methods and procedures were standardized and had only to be learned. Students were introduced to a world of research in which their teachers had laid out for them the pathways through which the known destinations could be reached by well proven and validated means.

Entering the Ph.D. stage means leaving learning through imitation behind. Students are now expected to do research on their own. They are no longer supposed to act within a frame of knowledge which is given, but strive for an active synthesis which includes what is already known, but also what is yet to be found. The method and meaning of learning change. Studying for a Ph.D. means to become an active producer of new scientific knowledge and technological artifacts. It is easy to see why this can be such a frightening experience at times. It marks the shift from the "mere" reproduction of knowledge to production; from dependence on those who have selected for you what you are supposed to know to a state of independence which requires and results in the originality of ideas, finding new approaches or trying out new methods. Students are expected to become similar to those whom they identify with as top researchers. Their most proximate role models are their supervisors. For the students, the supervisors represent at the same time the professional audience and the wider scientific community who will evaluate their future work

Socialization is a process in which previous experiences and an identity are actively reconstituted. At the end, a different set of attitudes, skills and behavior will emerge, more suitable for the norms and constraints of the professional world, the membership of which Ph.D. students aspire to. Empirical studies on how Ph.D. students internalize their future profession as researchers demonstrate the difference in attitudes between students beginning Ph.D. work and attitudes held by those who are near completion. The most striking change between early vs. late students, one study concluded, was the way in which the students integrated their sense of being an autonomous individual into their overall new identity. Initially, their sense of self was in conflict with a "personal morality" dimension of values. By the end of training, the sense of self became increasingly associated with drive, ambition, competitiveness and willingness to assume responsibility, and less with flexibility and the pursuit of scientific curiosity for its own sake. The students

had learned that failure was their own responsibility (Hill, 1995). Another study examined the effects of socialization on male and female students in technology. The results show that while significant differences between female and male students remained, with female students emphasizing caring norms more strongly, students initially emphasized caring-related norms more strongly than junior researchers who had completed their studies. In other words, socialization continues at the work-place, making men and women more alike. This is a gendered process in the sense that masculine values were promoted, while caring values lost out (Sørensen, 1992). However, this must not necessarily remain so in the future.

#### **Changes in Knowledge Production**

Working for a Ph.D. is not an aim in itself, despite the intrinsic gratification it may confer. It is supposed to prepare graduate students for what was once meant to be the only desirable career as a scientist: a life dedicated to science and research, preferably within the university or in a comparable researchintensive setting like an industrial lab. But the times in which there was a reasonable expectation that a Ph.D. would open up predictable and secure avenues and in which scientific careers came with the prospect of life-long employment are changing all too rapidly. Only a small fraction of those studying for a Ph.D. will end up in what used to be a traditional university career structure, which itself is undergoing profound change. The vast majority of Ph.D.s will find themselves distributed throughout society across an increasing number of sites where recognizably competent research is being carried out. The interactions among these sites have set the stage for an explosion in possible configurations of knowledge and skills. The result can be described as a socially distributed knowledge production system in which communication increasingly takes place across existing institutional boundaries and where knowledge production takes place in specific contexts of application (Gibbons et al, 1994). Ph.D. students are rapidly becoming part of this new mode of knowledge production and there is a growing awareness that many problems demand a more interdisciplinary or even transdisciplinary approach. If training inside universities, including training for a Ph.D., does not seem to accommodate or encourage more interdisciplinary interaction and communication, it is mainly for the reason that university teaching is still predominantly organized according to disciplinary boundaries. Students are supposed to become socialized into what is still felt to be most important, namely to acquire a professional identity which is discipline-based. However, it is becoming increasingly obvious that a cognitive identity rooted within one discipline must be accompanied by a capacity for inter- or transdisciplinary cooperation.

These tendencies have long been recognized within ETH Zurich, although a densely-packed curriculum and severe time constraints do not easily lend themselves to the accommodation of the need or the desire of many students for greater exposure to inter- or transdisciplinary studies. ETH Zurich's Collegium Helveticum, located in the Semper-Sternwarte, offers an excellent intellectual space for a small group of highly motivated and competent Ph.D. students to continue work on their doctoral dissertation in a stimulating atmosphere where different research cultures meet. If you are looking for more than survival, join us.

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# Searching for a Position

# **Getting a PhD Position at ETH Zurich**

A short summary of what it means to be a doctoral student at the ETH should provide a helpful introduction and overview of this topic. (Short insight: at the ETH you will work on a "doctorate" towards a doctoral degree, which will sometimes be mentioned as "Ph.D." in the following text.)

To successfully complete a doctorate requires a strong personal interest and commitment from your side, but also an environment that allows you to focus on your work, and a group and supervisor who support you.

As a first step, you need to select a professor or senior scientist to be your supervisor and discuss the terms of your contract. These terms are quite flexible and cooperation with companies and other institutions are common, as are interdisciplinary projects. Sometimes the group may have no funding available for an additional Ph.D. student. In this case, you can apply for funding on your own from different national or European research funds. Such issues should be discussed in detail with your supervisor. You also need to define the topic of your research and the requirements for finishing your Ph.D. with him/her.

A doctorate at ETH Zurich typically lasts four to five years, including around 20 percent of your time as a teaching assistant (lab courses, exercise classes etc.). Also, attending some lectures is mandatory (more details can be found in the chapter "continuing education"). After writing your doctoral thesis, you will have to defend your research in front of your supervisor, co-examiners and a chairman before you are finally honored with your Ph.D. degree from the ETH Zurich.

## Requirements for a PhD at ETH Zurich

The general academic requirement of ETH is that you hold a master's degree or diploma (magister) from a university or equivalent institution. Depending on your grades and the background of your institution, the department might require you to attend courses and pass exams within the first year of your Ph.D. study, just to make sure you meet a minimum standard. You can find detailed information at <a href="https://www.rektorat.ethz.ch/doctorate/application/who">www.rektorat.ethz.ch/doctorate/application/who</a>

#### Searching for a Supervisor

The path towards becoming a doctoral student starts with finding the right supervisor. This is not only the first step; in many ways, it is also the most important one.

Of course, you should know what field of research you are interested in or what kind of issues you want to tackle: Would you prefer to work mainly in a laboratory using exciting, complex equipment or on a computer solving complicated theoretical problems?

As soon as you have some idea of what you would like to do, you should start to look for research groups in that particular area to find a pool of possible groups to work in. Do not be afraid to select different fields if your interests are widely spread.

For the next step, you need to find out which group on the shortlist actually has a vacancy. Many are posted publicly (institute billboards, group homepage or the telejob website [www.telejob.ethz.ch]). However, just be aware that some groups may not offer their positions publicly as some professors prefer to have students approach the group on their own initiative. In this case, you should contact these groups and ask for information concerning a possible Ph.D. position. It is always worth a try.

#### **Initial Contact**

For the initial contact with a potential supervisor, it is crucial that you are well informed concerning what the group is doing, what their biggest achievements are and what their most recent publications cover. You will find most of this information on the Internet and you can always try to contact a current Ph.D. student from the group.

For a formal approach, send or, if possible, bring a letter of recommendation from your Master's supervisor along with a copy of your thesis as the potential supervisor needs to evaluate you and this could help you convince him that you deserve the job. It would also be extremely advantageous if you already have an idea or proposal for a project. Normally, the publicly-announced positions already give the basic description of a project. In this instance, you should be well informed as to what it is about. In either case, be well-informed about the topic and read some papers about it. If you think you do not under-

stand most of it, read a review paper on the topic to familiarize yourself with the terms. You do not have to understand everything; however, make sure that you have got some insight (e.g. knowing about some important state-of-the-art approaches to the problem such as "the efficiency of a solar cell so far is... but Professor ...'s group claims that it could be increased to... with this technique."). However, be careful when talking to potential supervisors and coworkers: Do not to be too fixed on your own idea; first, listen to what they have in mind for you. Make sure the potential supervisor is aware of your motivation and interest in working on this topic in the group. Showing interest, initiative and motivation, as well as being well prepared, is always very appealing to a group leader.

Check with the potential supervisor and coworkers whether your proposed Ph.D. project is realistic in terms of the resources available and the given timeframe. Check which kind of expertise is available in the group to get an impression of how the group will be able to support you and where you may need external support.

Do not take this decision too lightly and make sure that you are not only looking for a potential supervisor but also one that you want to work with for the next few years! The application can be rather informal via email (including a résumé and references). To be on the safe side, simply ask the department's secretary or other Ph.D. students in the group.

#### Job Interview

You may want to prepare for the job interview:

- It is perfectly legitimate to ask in advance what kind of questions you will face during your interview.
- Read papers that have been published by the group (Google scholar, www.isiknowledge.com).
- Leave enough time to prepare a nice presentation if requested.
- If you are in contact with some Ph.D. students from the group, ask what to expect!
- Prepare a list of questions that you would like to ask.

If you have followed all the recommendations, you are more or less ready for your future supervisor's questions. Of course, you also need to make sure that the working conditions and working atmosphere in the group are as you

expect: Do not forget to discuss your project, lab duties, teaching assistant assignments (see chapter entitled [TEACHING]), salary conditions, mandatory entrance examinations, access to Ph.D. networks and workshops, and, of course, general questions of a scientific nature.

Finally, even if you have chosen your supervisor and group carefully, complications can always arise. Do not let them escalate by not talking about them since communication is essential within a group. Whenever you feel you cannot solve a problem alone, you are welcome to talk to AVETH. We can provide you with facts and information on the laws, as well as mediate. The AVETH is there to help you in any situation.

#### Your Contract

Your contract is what you should ultimately be aiming at. It sets your salary level and degree of employment. At ETH Zurich, the minimum degree of employment for a doctoral student is 60 percent. This percentage refers to a full 41-hour working week and salary. It is common in many departments to reduce the amount of payment from 100 percent to 80 percent or 60 percent. However, you are still expected to work full time. Make sure you know what you are about to sign.

The level of employment also influences the amount of money you will be paid. A full salary is about 68,000 CHF per year in the first year (net income), increasing by about 5`000 CHF annually up to 78,000 CHF from your third year onwards. For many foreign students, that seems to be a lot. However, keep in mind that the cost of living is also a lot higher in Zurich. Ph.D. students do not go hungry, but won't become rich based on their Ph.D. salary.

#### Error:

The above mentioned salary of 68,000 CHF is the gross income.

The salary is also subject to a yearly adjustment which can differ each year. At the beginning of 2012 and 2013, the salary was increased by 1,000 CHF each. In 2013 the starting salary is at 70,000 CHF.

# Welcome to Zurich, Switzerland

During the first weeks in Switzerland, you will most likely feel a bit overwhelmed and disoriented. There are countless details to be considered when settling into a new job and home, not to mention the challenge of assimilating yourself in a country where it may seem that there is a standard method or procedure for doing things that everyone seems to be aware of except you. Do not despair; after a few months of some effort and patience, you will feel more settled in your new home and find yourself answering the same questions for other new arrivals that you were asking yourself. A good information source to consult before leaving is the Swiss embassy or consulate.

www.eda.admin.ch/eda/de/home/reps.html

In some cases, consulates may have useful information about resources in and around Zurich, specifically for someone of your nationality – including lists of physicians who speak your language and information about clubs for expatriates. They can be very helpful in addressing specific questions and may have information printed in your native language or English. Furthermore, in addition to the resources available on the web, there are also reference books which deal with the issues of living and working in a foreign country, some of which are specifically about Switzerland. Some of the key issues you will need to be aware of as a foreigner are addressed here.

# Ausländerausweis and Residency Permit

To live and work legally in Switzerland, you must be in possession of a valid residence permit, the "Aufenthaltsbewilligung".

On June 1, 2007, exactly five years after the bilateral agreement between Switzerland and the EU on the Free Movement of Persons came into force, the limits on the maximum number of residency permits that can be issued for EU17 and EFTA citizens working as self-employed or employed persons were lifted.

As a future employee at ETH Zurich, you will benefit from the relaxation in the rules if you are citizen of an EU17 or EFTA country. For citizens of all other countries, a request for a work permit must be submitted.

#### EU17 / EFTA Citizens

For EU17, EU 8 (Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia, Czech Republic and Hungary) and EU 2 (Bulgaria and Rumania), no special conditions apply. Citizens of these countries have to apply for a residence permit and, by law, are treated the same as regular Swiss citizens when applying for a job. For EU2 citizens, special regulations may apply for residency/work permits. They must register with the local authority at their place of residence (Gemeindehaus or Stadthaus) or at the relevant district office (Kreisbüro) in Zurich within eight days of arriving in Switzerland.

#### Citizens of Third-Party Countries:

For citizens of third-party countries, the Human Resources Department must submit a request for a work permit to the Migration Office (Migrationsamt) or the Office for Economy and Labor (Amt für Wirtschaft und Arbeit) in Zurich. Employment can only commence once your work and residency permits have been issued. The purpose of your stay determines your residency status.

Citizens who need a visa to enter Switzerland in order to get a work permit should not enter the country before the visa has been issued by the Swiss Embassy or Swiss Consulate in their respective countries. The Human Resources Department at ETH Zurich will apply for the visa; you will be informed by your institute when the visa is ready at the Swiss Embassy/ Consulate in the town you indicated on the application form.

Citizens of third-party countries must register with the local authority at their place of residence (*Gemeindehaus* or *Stadthaus*) or at the relevant district office (*Kreisbüro*) in Zurich within eight days of arriving in Switzerland. You have to appear in person with two passport photos and possibly your rental agreement. A registration fee of at least CHF 30 is to be paid. It will take two to three months before the actual permit is ready.

You will be notified by letter as to when you can pick up the residence permit at the same office where you registered, upon which you will have to pay a fee (~ CHF 120 first year, ~ CHF 80 renewal).

The institute will inform you about which documents you need to present to them and, for citizens of third-party countries, which application forms are needed for the immigration authorities. A Zurich residency permit is only valid for the Canton of Zurich. If you intend to live in another Canton, you should contact ETH Zurich in advance and they will help you with the necessary arrangements.

www.pa.ethz.ch

#### **Types of Residency Permits**

There are different types of residency permits in Switzerland. If you are a resident of a European EU/EFTA country, visit the homepage of the Swiss Federal Office of Migration in Berne:

www.bfm.admin.ch/content/bfm/en/home/themen/aufenthalt/eu\_efta.html

For residents of a NON-European EU/EFTA country: www.bfm.admin.ch/content/bfm/en/home/themen/aufenthalt/nicht\_eu\_ efta.html

Most likely, you will get an L- or B-permit. With the former, you might encounter problems signing contracts with a long-term commitment, e.g. housing, credit cards or mobile phones. In case you have questions or problems regarding your permit, always contact Human Resources instead of dealing directly with the Migration Office.

#### Insurance

#### Health Insurance

Swiss law requires every person living in Switzerland to have a health insurance. As there is no state insurance, this must be acquired from a private insurance company. There are three important concepts concerning health insurance and the optimal amount of money to spend on it:

■ The coverage – the cheapest insurance policies offer the basic coverage defined by law. Smaller luxuries, such as fancy therapies (e.g. homeopathies), choice of medication, choice of hospital where you are to be treated or a new pair of glasses every year will, at best, be partially covered. You can pay extra if you want your insurance to cover more. For instance, you might want an additional insurance policy for a free choice of hospital or dental care (dental care is always an additional insurance item so do not be surprised to see your colleagues cleaning their teeth after every coffee-break)

- The franchise If you feel rather confident about your health, you can decide to take a share of risk on your own account by telling your insurance that you yourself intend to pay a fixed amount of money per year for health issues. The insurance will then only step in after this deductible is exceeded, thus making the insurance much cheaper. Some insurance companies offer a split franchise, which is lower for the more costly hospital treatment and higher for the less common ambulance treatment.
- Selbstbehalt another way of lowering insurance fees is to pay a fixed share of the costs for any treatment on your own account (e.g. 10%). After the maximum annual sum of Selbstbehalt paid is exceeded, the insurance will assume any additional costs completely. For basic coverage, the Selbstbehalt is always 10% of the first CHF 6,000 per year. Any further claims in a year are fully covered by the insurance.

Example: You have chosen a franchise of CHF 1'500 per year and you need hospital treatment that amounts to CHF 10,000. You will have to pay CHF 2'100 (Franchise + 10% of the next CHF 6'000 = 1'500 + 600). If you have any other medical treatment in the same calendar year, your insurance will pay 100% of it. By law, every insurance company must accept you for basic coverage, but they may refuse you for top-up insurance. Some weeks after your registration in Zurich, you will automatically receive a letter from the city of Zurich's public health office ("Städtische Gesundheitsdienste"). They want to be sure that you are going to get basic health insurance. They also offer a list of the most reasonable insurance companies. If you fail to obtain basic health insurance or if you do not answer the letter for three months, the public health office will oblige you take a standard health insurance policy – which will probably not be the optimum solution. Some of your health insurance fees may be refunded by the city of Zurich in a process called "Individuelle Prämienverbilligung" (IPV; individual fee reduction), but only if:

- your income is low enough (there are several income levels corresponding to several yearly refunds)
- you are insured by a Swiss health insurance company
- you move to Zurich from another Swiss Canton as opposed to from a foreign country: IPV only if you have lived in Zurich from January 1 of the current year. To apply for the IPV, write another letter to the public health office stating the expected duration of your stay in Switzerland and which health insurance you are in. Enclose a copy of your employment contract. The public health office will decide whether you are entitled to an IPV, but

the IPV will be paid by the social insurance agency of Zurich ("Sozial-versicherungsanstalt", SVA). Note that you will not get the money directly, but it will be paid to your insurance company, which will subsequently lower your insurance fees by this amount. The regulations for the IPV changed around the time of writing and thus the way things are carried out in practice might deviate from the routine described above. Insurance prices change frequently and it is a good idea to compare prices and switch insurance companies from time to time. This can be done easily via the internet:

Two very useful websites are: www.comparis.ch and www.krankenversicherer.ch

#### **Social Security**

Switzerland's retirement plan is based on a three-tiered pension scheme:

- 1st Tier: AHV/IV: The AHV/IV is the mandatory state pension and covers basic needs. This is covered on your pay check under AHV-Beitrag. The AHV is general and compulsory national social security insurance for everybody residing or gainfully employed in Switzerland. Its purpose is to provide retirement pensions and it forms part of the federal insurance network. 5.05 percent is deducted from the monthly gross salary (excluding care allowances). The same amount is paid by your employer without you noticing it. A share of this AHV fee is used for invalidity-insurance (IV). An additional share covers leave from work for Swiss military or alternative service (which is compulsory for all Swiss men). The AHV will send you an A6-format, grey insurance card with your AHV number on it. You will need this little piece of paper if you ever want to benefit from your insurance fees. Your AHV number serves as an important identifier in many administrative affairs.
- 2nd Tier: Occupational pensions (pension fund): Together with the 1st tier, occupational pension plans allow the continuation of the accustomed standard of living in an appropriate manner. The occupational pension plan is mandatory for employees with a minimum pre-AHV salary of CHF 20'880 (effective 2011) and is guaranteed by the pension fund. On your salary sheet, you will find a deduction for the pension fund. Every employer in Switzerland is required by law to offer a pension scheme to its employees. This pension scheme is the second pillar of Switzerland's pension scheme besides the AHV. ETH Zurich's pension fund is "Pensions-

- kasse des Bundes PUBLICA". The salary deduction is calculated on the basis of the "versicherter Verdienst" (insured income): your gross salary minus the maximum yearly pension AHV pays for a single person.
- 3rd Tier: Private pension plans (optional): Private pension plans form the third pillar of the Swiss three-tier concept. Tier 1 and 2 pensions may be significantly lower than what you previously earned (pension gap). Private pensions or private equity can help expand the pension scheme. Each year a certain amount can be saved for this purpose tax free (pension plan at bank or insurance company). Under tier 3, there are two options: a) the money is tied up for a certain amount of time and the Swiss state offers a tax reduction, and b) the money is freely accessible and no tax benefits apply.

Tier 3a individual retirement accounts offer several advantages: on the one hand, saving over the long term (wealth accumulation) provides state tax benefits and, on the other hand, private pension plans can also be drawn in the event of death and/or disability. Consequently, it is a good idea to get an early start when laying the foundations for a comfortable retirement by adding another pillar of support. The longer you pay in, the more savings you accumulate.

Each bank offers their own portfolio for people who want to use the tier 3a. You can invest in funds or simply deposit your money in an account. You can check the most suitable options at comparis.ch under the Finances menu.

#### Tax Deduction for Tier 3a

The state offers tax incentives to people who pay into tier 3a private pensions. The prerequisite for benefiting from the tier 3a tax relief is to be gainfully employed. If you belong to a pension fund, you can deduct up to CHF 6'682 (last updated in 2011) per year from your taxable income.

#### **Payout**

You can receive benefits from your 61st birthday if you are a man or from your 60th birthday if you are a woman and, at the latest, on the day before your 66th birthday if you are a man or the day before your 65th birthday if you are a woman. If you have a third-pillar pension and can prove that you are still gainfully employed, you can postpone the payout of benefits up to a maximum of five years after reaching the official retirement age. An early payout of the third-pillar pension is possible in the following cases in particular: if

you become self-employed, if you buy residential property or if you leave Switzerland for good.

#### **SUVA Accident Insurance**

Accident insurance: Insurance coverage for accidents is provided by the Swiss National Accident Insurance Fund (SUVA, "Schweizerische Unfallversicherunganstalt") through ETH Zurich and will be deducted directly from your salary. If you are employed more than eight hours per week, it is valid at all times for accidents that occur both on and off ETH-Zurich premises. The coverage also provides for recreational mishaps; if you are injured while participating in a sporting activity, you are still covered. If your employment contract is for less than eight hours per week, SUVA coverage is only valid during official working hours and not during the weekends. However, you are covered for accidents that occur while traveling to and from work.

#### **Finances**

Ph.D. students find themselves between the worlds of education and work. This is reflected in your salary which, in many cases, is not very high for the amount of work you will be doing. Salaries are deposited regularly around the 25th of the month directly into the bank account you specify. For those who cannot afford to live during their first working month in Switzerland while they wait for the salary, there is the possibility of getting an advance payment at the cash desk in ETH Zurich's main building. Seek advice on the detailed proceedings from your group's secretary.

#### Taxes

You can get your salary from a number of sources: A few Ph.D. students per professor are paid directly by ETH Zurich, which makes life quite easy for them. If your research project is financed by the Swiss National Science Foundation (SNSF), it might be necessary for you to write an application for your funding. Others are financed by industry, which necessitates a special agreement. Whether you have to manage your funding all by yourself or your supervisor or the workgroup's secretary does all the administrative work for you depends greatly on the style of your professor. According to ETH regulations, Ph.D. students receive a fixed-rate salary, which rises from the first to

the third year of your engagement. The minimum employment rate for Ph.D. students is 60%. Nevertheless, most professors will still require a 110% work load.

A starting point for questions on income tax, or Quellensteuer, is the "Steueramt" of the City of Zurich (see addresses). The responsibilities, especially for foreigners, are shared by offices of the Canton and city you live in, and you will have to find out who is responsible for each individual question. As a foreigner, you do not need to worry much about taxes as it is deducted directly from your salary.

The only reason you might get a tax refund is if you pay extra money into the pension fund ("Pensionskasse des Bundes PUBLICA") or a private pension fund (called "Säule 3a"). If you have made such contributions, you have to send proof of the payments together with your annual salary statement and an informal letter indicating a bank account to the cantonal tax office (Kantonales Steueramt, Abteilung Quellensteuer) within the first three months of the year following the payments.

# Transportation

#### Public Transport and ETH-Zurich Subsidization

Switzerland is world famous for its flawless train and public transportation system. Any location in Switzerland is accessible via train. Tickets can be either purchased online or at a local ticket machine (which also takes cards) or office. The web address is www.sbb.ch.

You can also download apps for your smartphone so that you are always informed about departure and arrival *times*.

Once you have received your ETH-Zurich contract, you are entitled to get a free Halbtax – a card that gives you 50-percent reduction on any purchased train ticket. Information on this will come together with your working contract

If you are a frequent rail traveler, you might also consider purchasing a GA (General Abonement), which allows you to take any train or public trans-

portation (including some cable cars) anywhere in Switzerland. Once you have received your contract, you can also get a rebate on the GA.

If you plan to stay in Zurich most of the time and want to use public transportation, it might be wise to buy a ZVV Netzpass which allows you to use all of Zurich's public transport at a flat-rate price.

#### **Zurich by Plane**

Zurich is well connected thanks to its international airport. If you arrive at Zurich Airport, you can either take public transportation to the city center (Tram 10 goes directly to ETH Zurich; remember to have some small change on you as the ticket machine does not take cards. You will need a ticket for zone 10 plus a connection ticket as the airport is outside of the inner city zone limits) or a taxi (it will cost about CHF 50 to get into the city center).

#### Zurich by Car

Be advised that Zurich is not a car-friendly city. Driving through the city center, you will soon find out what the author means. Still, the city is well connected via several interstates. You can enter the Zurich area from the east via Germany or Austria, or from the north via Basel (traffic jams ahead!).

#### Driver's License

After entering Switzerland, you have one year to exchange your old driver's license for a Swiss one. This costs a small fee and can be done within a few days at the Strassenverkehrsamt. You will need to go there personally and hand it over. You can find more information (including on the closest location) at:

www.stva.zh.ch/internet/sicherheitsdirektion/stva/de/StVAaw/AWumschreib. html

# Registering a Car in Switzerland

Bringing your car to Switzerland is rather challenging and not cheap. The process exceeds the scope of this guide. Instead, visit:

www.stva.zh.ch/internet/sicherheitsdirektion/stva/de/StVAfz/FZimport.html

# Parking Space

Parking space is rather limited in Zurich. There is no free parking anywhere in the city at all (and the fees are high!). If you only need to park for a short time,

go for a parking lot. If you need a daily parking permit for public lots (indicated by blue marks on the street), you can get it in advance here: www.stadt-zuerich.ch/pd/de/index/dav/parkkarten bewilliqungen.html

It costs CHF 15 per day and you can buy up to 10 days in a row. If you are looking for long-term parking, you can either get a permit for the public blue zone (same link as above) or use ETH-Zurich parking lots on the Science City campus:

www.dienste.ethz.ch/services/beschaffung/parkierung

# **Settling Down**

#### Housing and Finding a Place to Stay

Do not expect your employer to arrange or provide you with accommodation when you arrive in Zurich. Ask before coming whether somebody from the group you are going to work in can offer lodging for a few days. Be prepared to spend some time finding suitable accommodation as the demand for reasonably priced housing in Zurich is high. The most common housing possibilities in Zurich are a room in a WG (*Wohngemeinschaft*, shared flat), your own flat or a room in a family's house. It can happen that 50 people or more fight for a cheap and conveniently located flat. Plan plenty of time for the flat-hunt.

#### First Few Days

Unless you have made other arrangements, you will probably need to stay at the city's youth hostel (Mutschellenstrasse 114, 8038 Zürich, +41 43 399 78 00), a backpacker's (e.g. Hotel Biber, Niederdorfstrasse 5, +41 44 251 90 15; or Martahaus, Zähringerstrasse 36, +41 44 251 45 50) or a more expensive hotel (http://www.zuerich.ch).

Business apartments are another accommodation option, at least for the beginning of your Ph.D. They are usually cleaned, fitted with a kitchen and bathroom, and fully furnished. These apartments can be rented monthly and costs somewhere in the range of 1'500 CHF. Try searching directly on the web for "business apartments Zurich" or use this website:

www.zuerich.com/en/Visitor/accommodation/apartments.html

If you are not searching for flats, this will probably be the most quiet and relaxing time in your Ph.D. life, making it the perfect opportunity to explore

the city and your neighborhood. Shops where you can get food are located nearly on every corner in Zurich. In case you arrive late or on a Sunday, there is also a possibility to shopping for the bare essentials. There is a Migros at the main station and Bahnhof Enge that is open every day until eight p.m. Coop has a store between the central and main station that is open until ten on weekdays and Saturdays. There are plenty of activities you can do in Zurich. Check the city homepage; for bars and clubs, there are special homepages telling you where a party is happening:

- www.zuerich.ch
- www.barolino.ch (list of bars in Zurich/Switzerland)
- www.usgang.ch (party events in Zurich)

#### **ETH-Zurich-Owned Apartments**

ETH-Zurich has some studios for Ph.D. students who are coming from abroad and have a contract with ETH Zurich. They also have a bulletin board where you can find WG rooms or flats. You can apply for a studio at:

www.wohnen.ethz.ch/allocation/doctoral/

#### Where to Look for Apartments

Check out these addresses and locations

- ETH Whiteboard www.marktplatz.ethz.ch
- ETH Wohnen Service www.wohnen.ethz.ch
- The public bulletin boards at ETH Zurich and the University, especially those in the Polyterrasse building, mostly advertise WG rooms.
- You can also search for WGs and single rooms at the student organization WOKO www.woko.ch
- Flatsharing: www.wggesucht.ch
- Apartments: www.homegate.ch
- Apartments and flatsharing: www.students.ch/wohnen/
- You might also consider hiring an agent to look for flats for you. But be aware: you usually have to pay a fee of one month's rent in a successful deal. The comfort here is that you don't have to compete with other applicants.

#### Rental Contracts

In any rental agreement ("Mietvertrag"), there should be clear rules as to what costs are included in the rent and what is to be paid additionally (e.g. water, electricity, heating). The usual period of notice for vacating a flat

("Kündigungsfrist") is three months. If you are not the principle tenant, you will get a sub-contract ("Untermietvertrag"). Make sure you get this contract from the tenant when you move into a WG to avoid any trouble when you leave. Usually, you have to pay a deposit for your flat or room, which is normally two months' rent. You can find your rights as a tenant at: www.mieterverband.ch/?id=2287

#### The Actual Move to Zurich

In most buildings, a washing machine is provided by the landlord. Swiss caretakers are generally very creative in making up complicated reservation procedures for the washing machine. Rules of conduct in the washing and drying cellar can be as strictly defined as any major law.

The application process for renting a flat can be quite tedious: apart from proving that you can pay the rent, you might have to show an excerpt of the Swiss debtor's register ("Betreibungsauszug"), available at the Kreisbüro. Additionally, you might have to present some references from people living in Switzerland, such as your professor or supervisor, vouching for your trust-worthiness

For the actual process of moving to Zurich (or within Zurich), it might be useful to hire "Parking-prohibited" signs from the city police force to prevent others from parking in the space you need for your car for a few hours. These cost about CHF 60. Simply call the police department of the district ("Kreis") where you live.

www.stadt-zuerich.ch

A low-price alternative for buying household goods are the second-hand department stores called "Brockenhaus" or the flea-market at Helvetiaplatz every Saturday.

#### Radio and Television

While registering at the Kreisbüro, it is a good idea to pick up the booklet on applying for your radio and television license. You have to pay monthly fees for Swiss radio and television if you own a functioning radio, television or have programs installed on your laptop that allow you to receive either (in 2011, about CHF 40 for radio and television). It does not matter whether you watch or listen to other stations or use your radio at all; you still have to pay

these fees. If you don't pay the fees, the fine could be as high as CHF 5'000. www.billaq.ch

### **Swiss Waste Management**

Sustainability is important in Switzerland. Hence, waste management is taken very seriously. You will need to separate your rubbish into:

- Paper, which has to be packed and cored into small piles. These have to be put out on the street at specific times of the month for collection. Dates can be found at <a href="https://www.stadt-zuerich.ch/content/ted/de/index/entsorgung\_recycling/abfall/entsorgen\_wiederverwerten/papier/papier\_wie\_wo.html#contenttabs">www.stadt-zuerich.ch/content/ted/de/index/entsorgung\_recycling/abfall/entsorgen\_wiederverwerten/papier/papier\_wie\_wo.html#contenttabs</a>
- Cardboard is treated similarly to paper. However, you are also supposed to separate it!
- Plastic bottles, which can be put into PET collection containers (supermarkets)
- Glass bottles, which go into glass containers (found throughout the city)
- The rest has to be put in *Zürisäcke*, which can be bought at supermarkets (Migros, Coop):
  - www.stadt-zuerich.ch/ted/de/index/entsorgung\_recycling/abfall/ hauskehricht.html

#### Internet at your Apartment

There are two major home internet providers in Switzerland: Swisscom (www.swisscom.ch) and Cablecom (www.cablecom.ch). Both offer high speed access at different rates. You can get a rebate when using Cablecom via www.passwort.ethz.ch.

Because Switzerland has a very advanced infrastructure, you might also consider getting wireless internet only (Swisscom, Sunrise (www.sunrise.ch) or Orange (www.orange.ch).

# Electricity/Gas

Most Zurich households are connected to the electricity grid via the Canton-based energy supplier EWZ (www.ewz.ch). As an tenant, you can choose between different contracts (depending on your financial situation and environmental consciousness). However, there is not much choice when it comes to the gas supply as this is usually decided by your landlord.

#### Cell Phones

Three major providers exist in Switzerland and have a huge variety of contracts available: www.siwsscom.ch, www.orange.ch and www.sunrise.ch. However, you will need to have a residency permit and a bank account to be allowed to sign a contract. Another option (at least for starters) might be www.yallo.ch, which also offers cheap international calls.

#### Banking

Shortly after your arrival in Switzerland, you should open an account at either a bank or the post office. Despite the mystique of the Swiss banks, this is relatively easy. Some banks may hesitate to open an account for you if you only have the "Zusicherung der Aufenthaltsbewilligung" and not a regular "Ausländerausweis". Tell them they are about to lose a future manager as a customer and go to another bank if they remain stubborn. Some banks offer a special student account with favorable conditions, such as reduced fees. The quality of the Swiss post office's banking services is comparable to that of ordinary banks. EC-card or Postcard payments are the most widely accepted forms of direct debit payments in Switzerland. However, you will only be issued these cards after some money has been deposited in your account (e.g. the first salary).

Give your account details to the secretary in your workgroup or department as soon as possible so that your salary payments can be made to the right place.

If you are able to save money, you will need to file a simple application form to the tax authorities every two years to claim back the 35-percent tax ("Verrechnungssteuer") levied against any interest earned. For Swiss citizens, this form automatically comes with the income tax forms. Foreigners are entitled to the refund if they have been living in Zurich since January 1 of the current year. They need to collect the form from the "Formularkanzlei" of the "Steueramt" (the City of Zurich's tax office). Once they have applied once, foreigners will also receive the form automatically in future. A short, additional word on financial matters: Sooner or later, you will be confronted with an orange, blue, red OR RAINBOW COLOURED payment slip ("Einzahlungsschein"). The first one will most probably come with your ETH-Zurich admission papers. You can go to a Swiss bank or post office with this form and pay the dues. If you are not in Switzerland, try to ask a group member to 'loan' the money to you and

take care of the "Einzahlungsschein" because it can be extremely expensive to pay the dues from abroad.

#### Healthcare

# **Public Holidays**

A list of public holidays in Zurich is available at: www.awa.zh.ch/internet/volkswirtschaftsdirektion/awa/de/ arbeitsbedingungen/infos/feiertage.html

# First Day at Work

Congratulations, you have almost started your Ph.D.! In this chapter, we would like to give you a brief overview of ETH Zurich (so that you don't get confused by all the abbreviations people love to use) and the things you should do during your first day at work.

#### **AVETH Orientation Event**

In order to get you started properly, ETH Zurich organizes an orientation event that AVETH also attends. It is an introduction to ETH Zurich as a university and as an employer. The aims of this event, which is held in English, are to present the organization and mission of the ETH Zurich, briefly look at specific topics such as the Ph.D. process and provide an overview of ETH Zurich's services. The intention is to facilitate integration into ETH Zurich culture and help new entrants to meet each other.

The subjects covered are ETH Zurich in general (organization and mission, doctoral studies at ETH Zurich), ETH-Zurich specifics (European research programs, equal opportunities for women and men, Language Center of the University and ETH Zurich, ETH Bibliothek (main library), IT Services, Human Resources, Corporate Communications, Doctoral Administration, Educational Development and Technology; Security, Safety, Health and Environment; Psychological Counseling Service) and the associations, including AVETH (association of scientific staff at ETH Zurich) and others (Alumni, ASVZ, Careers Center).

Registration is not necessary; dates can be found at www.pa.ethz.ch/3100\_an\_kurse/kurse

#### ETH

Tertiary-level technical research and education is organized on a governmental level in Switzerland through the so-called ETH Domain. There are two major universities, one in the French-speaking part of the country in Lausanne (the École Polytechnique de Lausanne) and one in the German-speaking part (the Eidgenössisch Technische Hochschule Zürich). The official English translation is the Swiss Federal Institute of Technology. It opened its doors in 1855.

Apart from these two universities, there are four national research institutes (EMPA, EAWAG, PSI, WSL). The ETH Domain is regulated by the ETH-Zurich Act. There is a board (ETH board) which is responsible for the strategic management of the whole domain. All other universities are governed by the cantons. If you are interested, you can find information via www.ethrat.ch.

#### ETH Zurich

ETH Zurich defined excellence pillars in Education, Research and Knowledge Transfer. It has more than 400 professors, over 12,000 Bachelor's and Master's students and more than 3'500 doctoral students, 32 percent of whom are female and 63 percent from abroad. 21 Nobel-Prize laureates have contributed to the success story of ETH Zurich. More than 215 spin-off companies have been created at ETH Zurich. There are two main campuses: ETH Zentrum and Science City. In addition, the Biosystems Science and Engineering Department is located in Basel and the Swiss National Supercomputing Center is located near Lugano.

A wealth of information on ETH is available at www.ethz.ch.



Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

# Organisation Chart ETH Zurich

Executive Board, Administration, Teaching and Research Facilities outside the Departments

Vice President Finance and Controlling Senior Vice President Intern. Institutional Affairs Associate Vice President Equal Opportunities Associate Vice President for Sustainability Faculty Recruiting Office Corporate Communications President's Staff President Associate Vice President for Animal Welfare Issues Electron Microscopy ETH Zurich Functional Genomics Center Zurich Swiss Seismological Service SED **EU GrantsAccess** Scientific Coordination FIRST-Lab ETH transfer Vice President Research and Corporate Relations Educational Development and Technology Orientation and Coaching for Students Prorector for Doctoral Studies Centro Stefano Franscini Language Center Prorector for Education Board Rector Collegium Helveticum Rectorate Rector Teaching and Research Facilities outside the Departments 1 July 2011 Infrastructure Divisions Executive Board Staff Units

Legal Office

Office of Resources Safety, Security, Health, Environment Events and Location Development

Human Resources and Services

Finance and Controlling Real Estate

Swiss National Supercomputing Center

**ETH Library** 

Secretary General

Vice President Human Resources and Infrastructure

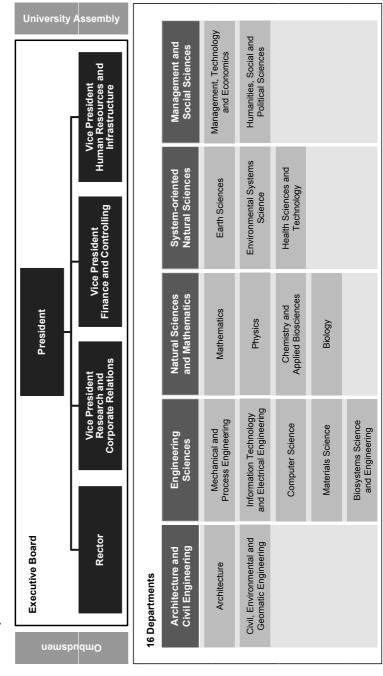


Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

# Organisation Chart ETH Zurich

Executive Board and Departments

1 January 2012



#### Governance

ETH Zurich is governed by the Executive Board which is headed by a President. It enacts decrees and administrative rules, regulates the organization of the school, and decides on the founding, renaming and closure of institutes. The Board consists of five members:

- ETH Zurich President (oversees entire university).
- Rector (responsible for education, including doctoral studies).
- Vice-President for Research and Corporate relations
- Vice-President for Finance and Controlling
- Vice-President for Human Resources and Infrastructure

Read more about the ETH Executive Board at www.sl.ethz.ch.

#### **University Assembly**

According to the Federal Act on the Federal Institutes of Technology (ETH Zurich Act), there are four member groups (stakeholder groups) at ETH Zurich. These groups have a right of opinion-forming and participation in the predecision process. Doctoral students belong to the scientific staff community at ETH Zurich and are thus stakeholders in the institution. The interests of the groups are represented at political level by associations (see table below).

Group:	Association:	
Doctoral students, scientific staff, assistants	AVETH	
Teaching staff (professors)	Conference of Faculty members (KdL)	
Students	VSETH	
Administrative and Technical staff	РеКо	

The University Assembly (Hochschulversamlung) is a body where the four member groups are equally represented. Each association elects five members of the University Assembly. The role of the Assembly is to ensure the participation of stakeholder groups in decision-making processes of general interest at ETH Zurich and ETH-Domain level. The Assembly is thus entitled to express a opinion on all normative acts of the ETH Board and ETH-Zurich Executive Board, and comment on budget and planning, the abolishment/creation of teaching and research units, and on annual reports. Depending on

the topics discussed, the Assembly may invite guests from the ETH Domain and members of parliament.

Are you interested in politics and the governance of universities and research institutions? Then the University Assembly is a perfect place for your voice to be heard! Join AVETH and learn more about how to become elected as our representative in the Assembly. The Assembly's homepage is www.hv.ethz.ch.

**Departments**ETH Zurich consists of 16 departments in five areas:

Architecture and Civil Engineering	Engineering Sciences	Natural Sciences and Mathematics	System-Oriented Natural Sciences	Management and Social Sciences
D-ARCH: Architecture	D-MAVT: Mechanical and Process Engineering	D-MATH: Mathematics	D-ERDW: Earth Sciences	D-MTEC: Management, Technology and Economics
D-BAUG: Civil, Environmental and Geomatic Engineering	D-ITET: Information Technology and Electrical Engineering	D-PHYS: Physics	D-USYS: Department of Environmental Systems Science	D-GESS: Humanities, Social and Political Sciences
	D-INFK: Computer Science	D-CHAB: Chemistry and Applied Bio- sciences	D-HEST: Department of Health Sciences and Technology	
	D-MATL: Material Science	D-BIOL: Biology		
	D-BSSE: Biosystems Science and Engineering			

The head of a department, who represents the department internally and externally, is elected for a period of two years. In order to ensure participation in decision-making at departmental level, there is a Department Conference (Departmentskonferenz; the highest body of the department). The responsibilities of the Department Conference are diverse and include academic planning, the adoption of study-related regulations, the establishment of rules or procedures for the department, and the allocation of resources. Much like the University Assembly, every Department Conference is attended by representatives of the professors, students, administrative personal and doctoral students.

Quite often, important decisions regarding department-specific doctoral study regulations are made at the Department Conferences. Thus, if you wish to change things for the better in your department join the Department Conference and defend the interests of your local scientific staff community.

Other committees usually functioning at department level are:

- Professor Conference (Professorenkonferenz), which comprises all of the professors and adjunct professors in the department.
- Teaching Committee (Unterrichtskommission), which deals with studyrelated issues.

Contact your AVETH department association or department secretary for more information regarding the possibilities of participating in internal political life (visit the AVETH homepage for an updated list of AVETH department associations).

#### The Academic Calendar

Please note that ETH Zurich's academic calendar is different to those found at many other continental European universities as it follows the American system.

The updated calendar can be found at www.rektorate.ethz.ch/calendar/

# **HR Registration: Employee Status**

If you are joining us from the outside, clearly the first step when you arrive is to register with HR, which is basically necessary for all subsequent steps. You may receive your contract in advance by post. Information on your employee status can be found on the webpage of the human resources department at www.pa.ethz.ch (PA = Personalabteilung = Human Resources).

Together with your contract, you will also receive a book about your rights and duties as an employee in Switzerland. The HR department also has an updated version of this information on their homepage.

# **Doctoral Registration**

The doctoral registration is performed by the Doctoral Administration. We urge you to read their webpage carefully as it contains a wealth of important information. The address is www.rektorat.ethz.ch/about/dr admin

You need to fill out the registration form (available on the webpage) and have it signed by your professor. If you manage to do this before you actually start at ETH Zurich, it is not a bad thing, either.

If you register between semesters, please note that you will be matriculated for the following semester. Please note that the Doctoral Administration is not responsible for processing your visa and employment contract. Your supervisor and Human Resources are responsible for processing these documents.

Once the Doctoral Administration receives your complete application, you will be matriculated and receive an ETH-Zurich card. If you are already in possession of an ETH-Zurich card, you can update it at a terminal a few days later after you submit your complete application. The letter "S" will then be printed on your card and you will have student status. If you are not in possession of an ETH-Zurich card, the Doctoral Administration will issue you with one within approximately two weeks of submitting your application. [Text by the ETH Rektorat]

# ETH-Zurich Card (Legi)

All students receive an ETH-Zurich card. It acts as both a visual and an electronic identity card. The ETH card is issued for the entire duration of your studies at ETH Zurich. It is basically used everywhere (to enter sports grounds, cafeterias, the library ...)

You need to validate your card every semester. After you have enrolled for the new semester via 'myStudies', you have to validate your ETH-Zurich card at one of the eight validation terminals. Please enroll as early as possible and no later than the end of the second week of the semester. After enrolment, you will receive a set of matriculation confirmations by regular mail, one of which can be used as a substitute for validation.

[Text by the ETH Rektorat]

# Being a Ph.D. Student

# **Qualifying Exams**

The prorector for doctoral studies and the doctoral committee of the responsible department decide on whether or not you have to take qualifying exams. Approximately one third of doctoral students are requested to take qualifying exams. The topic, type and duration of the exam(s) are decided by the doctoral committee of the responsible department in consultation with your supervisor. The qualifying exams are then clearly stated in your admission letter. The international fee of CHF 120 for all the qualifying exams is charged to your semester invoice.

How to register for a qualifying exam:

- A list of your qualifying exams is available on www.mystudies.ethz.ch
- The examination schedule published on myStudies informs you about the examination date.
- If your exam and/or examination mode is not based on a course from the course catalogue, you need to arrange an individual date for the exam(s) with all the examiners concerned.
- Be sure to register at least one week prior to the exam(s)!
- To register for an exam, you need to log into myStudies and choose the category "Functions" and then "Qualifying exams". There, you can enter the date and time of each exam.
- Please note: There and only there must you register for your qualifying exam(s). Do not register through the examinations office.
- After entering the exam data, both you and the examiners will receive a registration confirmation via email.
- After the exam, the examiners will enter the grade(s) in eDoz or communicate the grade(s) in a letter to the Doctoral Administration Office.
- After you have taken all your qualifying exams and all the grades have been entered, you will receive an official confirmation letter stating that you have fulfilled the admission requirements.

To ensure the smooth processing of the qualifying exams, doctoral students must enter the exam date(s) in mystudies. The qualifying exams must be taken within one year; the deadline is clearly specified in your admission letter and indicated at www.mystudies.ethz.ch. Any changes to this deadline must be communicated to your department.

If you fail a qualifying exam, you can retake it within six months, provided that your supervisor is in agreement. If your supervisor does not agree or you fail the exam twice, you will be exmatriculated and you cannot continue your doctoral studies.

Important: You must take your qualifying exams before you can submit your research plan.

[Text by the ETH Rektorat]

#### Research Plan

Doctoral students compile a research plan outlining the goals, type of work and responsibilities they have. The research plan is submitted to the supervisor, and, if possible, the co-supervisor(s). It must then be approved by the doctoral committee of the responsible department. The research plan is usually submitted within the first year of registration. A deadline extension can be requested, but this requires the approval of the doctoral committee.

Please note that you must send the approval form along with your research plan to the responsible departmental office. There is no given format for the research plan, but it must contain the following points:

- research tasks
- external determining factors, content-oriented framework, timeframe
- scope of research work
- other responsibilities.

Should a thesis be completed outside the ETH Domain, it should be specified in the research plan. Doctoral students requested to take qualifying exams can only submit their research plan once they have taken all the qualifying exams. More information can be found at:

www.rektorat.ethz.ch/doctorate/admin/research\_plan
[Text by the ETH Rektorat]

# No Plagiarism

It should be obvious, but history tells that, actually, it is not. Do not, never ever, copy and paste work. Always be always aware of copyright and authorship

issues, and assure the integrity of your data and research. The damage that can be done by not obeying these rules is extensive.

Log whatever you do in detail. You cannot imagine how many times you will need to look up the details of your experiments or analyses and how many of the details you will forget! Label everything, from samples and diskettes to folders and printed data or results, together with the date (sometimes we overestimate our memory...). Store all your data in computer files (lists, databases, text files) as it will be easier to look for something you need at a later date. Find a good, consistent way to name your files and print the file's name on every printed version. Keep duplicate records of all data, ideally in two different places (you never know what may happen!).

ETH has prepared a booklet that will provide you with detailed information: www.rechtssammlung.ethz.ch/pdf/414 Integrität Forschung.pdf

# Departmental Ph.D. Rules

Unfortunately, every department at ETH has its own regulations for Ph.D. studies. Some even have different regulations depending on your actual program. If you have specific questions, ask the responsible person at your department. The complete list can be found here:

www.rektorat.ethz.ch/doctorate/advice/departments

# **Doing Research**

During your Ph.D., you will probably encounter the feeling that there is never enough time for everything. You are supposed to conduct research, read up on your subject, teach and still find time to eat, sleep, meet friends, do sports and have hobbies. It is not easy. However, if you manage to organize your Ph.D. well you will save yourself a lot of time for your private life. Your time management – especially in research – has a lot to do with finding a healthy progression from "learning to swim" and not knowing which direction to developing an aptitude for clearly defining topics, goals and work stages, setting deadlines and not wasting time. There is usually a lot of stress within groups working scientifically. People seem to work 24 hours a day, seven days a week. Do not believe you are expected to do the same! You can save a lot of time by organizing yourself efficiently and avoiding work or tasks that are not

really important. After all, everybody "works" in a different manner. Discover your own working technique and, once it has turned out to be successful, be confident that it is the right one for you. Try to work efficiently and continuously, but at the same time don't neglect your private life. You will need it to maintain your inner balance and not be too focused on the ups and downs in your work. The following sections comprise a list of good ideas compiled by Ph.D. students who have just started out and others who are already well into their Ph.D.s. Some of the ideas may be useful to you, others may not – so feel free to pick and choose!

#### **Networking in Academic Life**

Find one or several colleagues with whom you can discuss your progress and who is willing to give personal feedback. This need not necessarily be your supervisor or even somebody in your research field, but anybody who is experienced in scientific work, who respects you personally and who is willing to share his or her experiences and opinions with you – perhaps you will do the same for one of your colleagues one day! Doctoral seminars, workshops or conferences are good opportunities to meet other researchers, talk about your own project and develop your personal sense of scientific quality. Join them as soon as possible in your postgraduate career. Make a presentation of the work you have planned or your work in progress. It will need some personal initiative and a portion of courage, but it pays off! Additionally, you can contact the author of a paper when you realize that he or she is dealing with the same subject you are. This could be useful to your work. You are bound to find similar work taking place in your own field and discover names of researchers working on problems similar to yours. If you think a person could help you, tell your supervisor; and if he or she agrees, muster all your courage and contact him or her... Most people will feel honored by your well-prepared and well-thought out questions and help you.

Finally, take advantage of the old hands at ETH Zurich. If you don't ask, they might not jump out to help, but if you ask they will probably share their experiences with you. You do not need to work and proceed in the same manner as they do, but combined with your own personal judgment, you will be able to benefit from their expertise.

#### **Research Planning**

Allow some time for settling in. If you choose a research topic on your own, you will certainly need more time at the beginning in order to get a rough idea of the area of research you will be working in and define a gap of knowledge you would like to fill. Make a plan for your work – you will not need to follow it exactly, but it helps you to constructively think of your work's future and break seemingly huge tasks down into manageable pieces. Defining short-term goals will help you to have more control over the progress of your work. Determine the point at which you intend to be with your work in one year's time, for example, imagining what you should have done by then and what you would still have to do. You will sometimes have to change or modify your plan because something did not work the way you thought it would, or due to a discovery of a new way of treating a problem or a new tool. This is very natural, all part and parcel of good research! If you are ahead of schedule (rare, but it happens), do not sit back. Instead, double check important points and do things you always wanted to do but never had the time for (e.g. read theoretical literature or recent papers). On the other hand, do not panic if you get behind. You are doing research and there are many factors you cannot predict or control. A schedule is meant to help, not terrorize you! Do the easy things or things you know well first. This might be searching for specific literature, designing a piece of apparatus or learning how to use a software package. However, make sure that the things you do are relevant to your dissertation.

#### **Time Management**

Set deadlines, even if they are only for your own purposes. They will help you to define priorities and encourage you to write "to do" lists. Keep "to do" lists, but do it right. This means you should only list things which are of a "done/ not yet done" nature. Moreover, the list should be readily available so that you can check and update it. You will get a feeling of satisfaction from crossing off the things you have done!

# Studying

Studying for a Ph.D. is completely different from studying for an undergraduate degree. Nobody will expect you to study anything particular; you are fully responsible for what, how and when you learn. Do not focus on everything that sounds interesting – there are too many interesting things. Set your own priorities; the focus of your work will naturally grow and shrink

during the course of your Ph.D. work. At the very end of your project, revisit the initial scientific questions. Ask yourself: what is the meaning of my results with respect to my initial scientific questions? What can I conclude from my results? What can't I conclude? What questions might be analyzed further after my project? It might be helpful to test your personal knowledge by explaining your results to somebody who is not from your field (maybe even a layperson, such as your parents!).

#### Reference Material

ETH Zurich has access to a huge amount of scientific journals. Depending on your field, different sources might be the easiest to access. Good places to starter, however, are:

- www.isiknowledge.com (great search engine that can also give you complete networks of papers and authors to make it easy to get an overview of a new field)
- www.springerlink (entire books downloadable as a PDF)
- www.ethbib.ethz.ch (the ETH Zurich library)
- www.ecollection.ethz.ch (ETH internal data source)

#### Writing

Writing a dissertation or paper is not an easy task, even for experienced writers. Writing is always a "reality check" concerning what it is you want to explain. In other words, if you have trouble formulating something, this could be an indication that you are not fully clear on the matter you want to express. Thus, writing will also show you what is clear to you and what not. So start writing early. Generally, the text you write should have a well-defined purpose. This may sound trivial, but one source of problems in writing might be that you are not fully conscious of the purpose of the text, whether it be a short description for laypeople (such as potential sponsors), a conference paper or a chapter of your dissertation. Do not try to create a perfect version from the outset (nobody can do this). Start with a first draft (or maybe with an outline) and revise the draft until you achieve the desired result. Ask for feedback from your supervisor and your colleagues. Make a visual plan of your dissertation and try to build your text according to that plan. Change the plan during the writing process if necessary. Take extra care with the introduction and the conclusion sections. They might cost you the greatest effort (relative to their length) because they should be precise, self-explanatory and easy to read. Be aware that, based on the introduction and the conclusion, a potential reader will probably decide on whether he or she will continue to read your dissertation or not. The introduction should demonstrate the context of your work and give a clear explanation of its purpose, whereas the conclusion should demonstrate what you conclude from your results and maybe offer some suggestions for further research. Be aware that neither the introduction nor the conclusion should simply summarize the results, nor that a reader is more interested in the outcome than what you have done. Write a short summary at the end of each chapter. Be careful with the bibliography and double-check all references, especially any quotations. Find a good editor in order to avoid minor errors and have correct figures. If you plan to publish the dissertation, a professional editor might be a worthwhile investment.

#### **Meetings and Conferences**

The ability to conduct good and innovative research is something you will acquire gradually during your Ph.D. work. It is not easy and primarily requires a thorough knowledge of your research field, but also the ability to identify key problems. Communication with colleagues and other researchers is a crucial part of successful research. In addition to the interaction with researchers in your immediate surroundings at ETH Zurich, you will have opportunities to expand your network of professional acquaintances by attending meetings and conferences where the latest work is being presented. Attending a meeting or a conference can reignite your enthusiasm for research and provide new insights. Additionally, it will help you to construct or build up your own perception of the scientific community you belong to and position your own work within the field. Presenting your own work at a conference is a great chance to gage other people's interest in your work and get feedback. Even if the latter is not of immediate use, a presentation will help you to find other people working on similar questions and allow you to discuss problems with them. A presentation will significantly affect your progress.

# Being a Teaching Assistant

Teaching at ETH Zurich depends a great deal on the work of teaching assistants (TAs): They are important for the quality of much student learning. TAs form an important link between the professors or lecturers and the students; they are not only closer in age but also remember more what it was like to be a student and what sort of problems they experienced themselves

at the same stage. The contribution of TAs to student learning at ETH is therefore not to be underestimated!

For the assistants themselves, these teaching duties present an opportunity to practice and develop skills such as those needed for presentations, leading discussions or meetings, giving constructive feedback, sharing responsibility for a specific group of people or task, and evaluating one's work and responding to the results. Such skills are not only valuable in the teaching and learning environment, but also in research and "life after ETH Zurich", be this in an academic setting or not.

#### Different Kinds of TAs

- Laboratory classes ("Praktika"): In the first two years of an undergraduate degree, a group of about 12 to 15 students is assigned to one TA in a laboratory class. The TA is responsible for introducing each section of the course, perhaps reviewing some of the experimental design, organizing the laboratory, helping the students with apparatus, and marking and correcting lab reports. In advanced stages (years 3 and 4), TAs are more likely to have to supervise students on an individual basis.
- Exercise classes ("Übungen") (e.g. in mathematics, computer science, engineering): The role of the TA in this teaching situation might include running the weekly sessions, providing "tips" for the new set of exercises, asking challenging questions to check the students' understanding, writing the exercises, providing sample answers, marking the students' work and giving students constructive feedback.
- Excursions and field trips ("Exkursionen"): Excursions may not take place every week and, if you are lucky, they might be limited to summer semester

   although it can also rain and snow in the summertime in Switzerland!
   They are time-consuming and require thoughtful preparation if the learning is to be effective. The amount of supervision varies greatly from department to department and you may find yourself alone with a group of 12 students for a whole day at a time.
- Case studies ("Fallstudien") and project work ("Projektarbeit"): This form of student learning is growing in popularity at ETH Zurich and TAs may well become involved in various aspects of it, such as helping to prepare the cases, leading discussions with groups of students working on the case and marking final reports.

- Supervising a semester project ("Semesterarbeit") (in many departments, especially engineering) or a diploma project ("Diplomarbeit"): Supervising semester projects requires the TA to work with one or several students at once with the aim of helping the students to complete a specific project in a limited time and learn some of the skills of independent study habits that will stand them in good stead when they come to do their diploma projects.
- Supervising a diploma project is usually done on a one-to-one basis with an assistant who originally "advertises" the diploma project. The secret of good supervision for the diploma project lies in finding a balance between helping the student, making sure they stay on the right track within the timeframe and encouraging an independent approach to the work.

#### **Preparations**

When you discuss the research project with your supervisor right at the start of your Ph.D. project, find out what your teaching duties are going to be and not only for the first semester or first year, but for the whole time you are a doctoral student. Try to insist on the same teaching duties for at least three semesters so that the extensive preparation the first time round is an investment that can be used more than once. Negotiate your release from teaching duties, or at least have them reduced, during the last phase of your research work and while you write your dissertation. Find out how much time you are expected to spend on teaching, preparation and grading papers, and carefully consider whether this is reasonable or not. Be realistic, however; the first time you teach a new unit will require more preparation time than the times thereafter. It is also a good idea to find out from the other TAs what the par for the department is; such facts are often useful in the early stages of negotiation. As soon as you sense that you are actually spending much more time than originally agreed, run your own "time and motion study", i.e. what you do when. Your supervisor, who is often the person with the overall responsibility for the lecture course or laboratory class you teach, is likely to take your case much more seriously if you can present him/her with some "hard facts and figures". Be aware of the fact that some institutes distribute administrative jobs as well as teaching duties to Ph.D. students. Whilst you clarify your teaching duties, find out what else is expected of you. It is particularly important for a healthy working environment that everyone gets their fair share and that it is clear "who does what".

#### What Students Want

ETH-Zurich students were asked to define what they felt "good TA supervision" entailed in a teaching evaluation run by the Center for Teaching and Learning (DiZ). Here is the list of the six aspects that were mentioned the most often:

- 1. The TA gives good explanations (takes time to explain things, is patient).
- 2. The TA is helpful (does not put us down when we ask questions).
- 3. The TA is motivating (praises us) and obviously likes the subject.
- 4. The TA knows his/her subject matter.
- 5. The TA is friendly, approachable and creates a good atmosphere in the classroom.
- 6. The TA gives a good introduction to the class or a new experiment.

Of particular relevance are the highly rated qualities of "being helpful" and "giving praise", neither of which has anything to do with factual knowledge but with the TA's social competence; in particular the latter quality often gets overlooked in the classroom – just think how good YOU feel when you are told you have done something well!

#### How to Profit From Teaching

Many men and women are employed as teaching assistants either during their doctorate or during a time they are involved with other projects at ETH Zurich. At the end of this period, what have they got to show for their work as teachers and the skills they have developed? Usually very little: perhaps a reference from their professor or a statement about the time they were employed as a TA and for which course(s). But where are the details about all the time, energy, ideas and academic skills that have been invested and acquired during this period, not to mention the quality of the work? The answer lies in the production of a "Teaching Portfolio". The compilation of a Teaching Portfolio has several goals:

- To make the activities undertaken as a teaching assistant more visible (for you too!)
- To encourage discussions between teaching assistants (exchange of ideas, how to solve problems etc.)
- To produce a portfolio of material that shows what has been achieved. This can be most useful for job applications, even if you do not plan to stay in an academic setting. Evidence that you have been involved in activities that require good preparation, didactic and communicative

- skills, and leadership, and which contain an element of self-evaluation adds an additional and valuable dimension to your résumé.
- To clarify your own pedagogical and didactic goals for your own teaching activities.

A Teaching Portfolio can be compared to the visible products of research work (a list of publications and/or a thesis/dissertation) in that it is "evidence" of what and how much has been undertaken in teaching, the level at which the work has been carried out and what has been achieved. Many US universities require the submission of a teaching portfolio in the application for academic positions (postdoc and above) and there are many TA training programs in the US that culminate in the production of this document. Think about collecting items for your own teaching portfolio right from the start of your teaching career at ETH Zurich.

#### Being Taught How to Teach

ETH Zurich takes its teaching duties very seriously. Hence, there are several different options to help you improve your teaching skills. Check out these websites to find out more:

- www.didactica.ethz.ch
- www.let.ethz.ch

# Taking Courses (ECTS Credits)

Doctoral students are encouraged to continue their education. In this respect, doctoral studies allow students to deepen their knowledge of their research topic, improve their skills in related research areas and general education, and facilitate their integration into the scientific community.

Credits are awarded for doctoral studies. One credit corresponds to a study performance of 25-30 working hours. Credits are only issued for a doctoral student's individual performance. A total of at least 12 credits are required, of which at least one third have to be acquired outside the field of research. Credits can be awarded for active participation in ETH Zurich committees and task forces. The responsible department decides on the issuing of credits. Please contact the responsible department directly should you have any questions.

When you register for the doctoral exam, you must provide proof of having acquired the 12 credits by having the "respective form" signed by a department representative. Please ensure that the form has been signed before you register for the exam at the Doctoral Administration Office.

www.rektorat.ethz.ch/doctorate/studies/credits/

# **MyStudies**

Your entire course, as well as your qualifying exams and the status of the submission of your research plan or contacting your co-advisors, is handled via a web platform called MyStudies. Enrolling for new semesters is also carried out via this tool. You can use your nETHZ-account to log in.

The address is: www.mystudies.ethz.ch

#### **Credits for AVETH Activities**

Being active for AVETH, such as being a representative for your fellow Ph.D. students on a political commission, does pay off to a certain extent as you can get ECTS credits for this work. As stated earlier, one credit corresponds to about 25-30 working hours. AVETH can give you an official document stating your work. You will have to ask your departmental doctoral administration to enter these credits into MyStudies.

#### External Ph.D. Theses

Usually, doctoral theses are completed at an institute at ETH Zurich or at one of the research institutes within the ETH Domain, namely the PSI (Paul Scherrer Institute), the WSL (Swiss Federal Institute for Forest, Snow and Landscape Research), the EMPA (Swiss Federal Institute of Materials Science & Technology) and the EAWAG (Swiss Federal Institute of Aquatic Science and Technology).

It is also possible to do your dissertation outside the ETH domain. Please read the prerequisites listed on the form for the "Approval of implementing a dissertation outside the ETH domain" carefully. This form must be completed and included, along with the concept for an external dissertation, with your full application. The concept should clarify why the dissertation will be completed outside the ETH Domain.

Short research stays outside the ETH Domain can be approved by your supervisor. In such a case, it must be guaranteed that the supervisor will have access to the infrastructure and experiment documentation.

www.rektorat.ethz.ch/doctorate/application/external [Text by the ETH Rektorat]

#### **Further Education**

Besides the regular coursework (for qualifying examinations and ECTS credits), you are also encouraged to take advantage of other offers for further education during your Ph.D. You may want to learn another language (see the chapter on language learning in the next section), but there are plenty of other options:

- The event calendar www.vk.ethz.ch
- ETH magazine (ETH Life) www.ethlife.ethz.ch
- Teaching courses (didactics) www.didactica.ethz.ch
- Teaching courses (didactics) www.let.ethz.ch
- Various trainings and soft skills www.zfw.ethz.ch
- IT courses www.id.ethz.ch
- Human resources training www.pa.ethz.ch
- Business tools www.startzentrum.ch
- Interdisciplinary work www.collegium.ethz.ch
- Lectures at the University of Zurich www.vorlesungen.uzh.ch
- General education www.vhszh.ch
- General education www.klubschule.ch
- General education www.eb-zuerich.ch
- Arts www.zhdk.ch
- Courses offered via partner universities in the IDEA league www.idealeague.org

Apart from these offers, you may want to look into academic exchange programs to spend a little bit of your research time abroad:

www.mobilitaet.ethz.ch and

www.rektorat.ethz.ch/students/finance/travel\_allowance

# Confused? Help is at Hand

You need help while doing your Ph.D.? There are various services:

- AVETH offers help on legal matters www.aveth.ethz.ch
- The Rectorate has list of contact people in every department www.rektorat.ethz.ch/doctorate/advice/departments
- You can contact the administration directly at *doctorate@ethz.ch*

# My Life in Zurich

There is plenty to do in Zurich besides research at ETH Zurich. Apart from asking your co-workers, we would like to recommend a few homepages for you to visit:

- www.zueritipp.ch
- www.ronorp.net
- www.zuri.net
- www.swisskalender.ch

#### **AVETH**

Doctoral students, research assistants, post-docs and any other academic employees who are not faculty at ETH are united in one group called scientific staff (in German, "Mittelbau"). It is the second largest group at ETH Zurich after the students.

In 1968 our predecessors joined forces to protect and improve all aspects of the scientific staff's well-being at ETH Zurich. They wisely founded an association which is now known as the Academic Association of the Scientific Staff at ETH Zurich, or simply AVETH.

Nowadays, the association is a contemporary society uniting young and experienced researchers at one of the world's leading universities.

Many things have changed in the more than 40 years of AVETH's existence. However, the main objective of improving your life and working conditions at ETH Zurich remains unchanged.

#### AVETH - Your Political Advocate

AVETH officially represents scientific staff on internal ETH-Zurich commissions, such as the University Assembly, Strategy Committee etc., and meets regularly with ETH Zurich's Executive Board to make sure your concerns are heard. AVETH bridges the gap between you and the executives at ETH Zurich. On the one hand, we convey your opinion to the head of the university; on the other, we inform you about the decisions made. We keep an eye on political developments at ETH and are prepared to step in whenever needed.

#### AVETH - Your Information Source

Besides the official ETH-Zurich part, the association is also here to help you with any problems and questions you might encounter while living and working in Switzerland. This ranges from how to open a bank account, how to get the right visa permit and where to find a flat to how to deal with your supervisor or regulations concerning your contract. We have compiled this and more information for you in the present handbook and regularly update the information on our homepage in the section "Internationals".

#### AVETH - Enrich Your Personal Life

AVETH is an intercultural and interdisciplinary association. The members of the association are people of different nationalities from all departments and institutes at ETH Zurich. Seize your chance while you are at ETH Zurich and enrich your personal life by making new friends and interdisciplinary professional contacts. The range of social events we organize for you is wide, including breakfast events, pub evenings, excursions in Zurich and Switzerland, skiing weekends, sport competitions, food festivals and much more.

Wherever you end up after finishing your doctoral thesis at ETH Zurich – in industry, a research institute or a university – happy memories and valuable contacts will stay with you forever.

#### Coffee & Gipfeli

Another great opportunity to get to know more Ph.D. students is the coffee & gipfeli event, where AVETH offers free coffee and *gipfeli* (a typical Swiss pastry) the first Wednesday morning of every month between nine and ten a.m. There are usually two venues at the campus Centrum and campus Science City. Check for exact locations on the homepage: www.aveth.ethz.ch

#### **Sports Events**

AVETH organizes several sports events every year. These include the beach soccer cup at the official FIFA soccer grounds, the soccer cup, the beach volleyball cup and much more. We recommend checking our homepage www.aveth.ethz.ch. In addition, AVETH members will also be informed via email.

#### Icebreaker Pub

If you would like to hang out with other Ph.D. students from different departments throughout ETH Zurich, you might want to go to an icebreaker

pub. It takes place every second Thursday. It also gives you the chance to get to know the city as the pub changes every time (moving through the alphabet). Check our homepage for details: www.aveth.ethz.ch

#### **City Tours**

AVETH tries to organize city tours of Zurich twice a year. They are geared towards international students and try to provide an insight into the culture and history of Zurich. The themes of the tours change (e.g. old city center of Zurich, modern architecture in Zurich, medieval Switzerland). For updates and announcements, once again, we recommend you check our homepage: www. aveth.ethz.ch. In addition, AVETH members will also be informed via email.

#### My Department Organization

In many departments, there are Department Associations (in German, "Fachvereine"). Once you become an AVETH member you are automatically a member of your Department Association, too. Attending department association events is a perfect way meet people working in the same field as you. Usually, these associations organize sport events, company visits, BBQs and other social and cultural gatherings for members from their department. Department Associations represent your voice at the Department Conferences and can also help you with problems on a departmental or institutional level. In the table below, we provide you with a list of Department Associations. If your department does not have an association, this may be your chance to start one and expand AVETH.

Department	Department Association
D- AGRL	-
D- ARCH	AAA Assistentinnen und Assistenten des Departements Architektur www.aaa.arch.ethz.ch
D- BAUG	-
D- BIOL	-
D- BSSE	-
D- CHAB	VAC Union of the Assistants at the Chemical Laboratories of ETH Zurich www.vac.ethz.ch
	PSA Pharmaceutical Scientists' Association www.pharma.ethz.ch/psa
D- ERDW	-
D- GESS	ASST GESS Association of Scientific Staff at the D-GESS www.gess.ethz.ch/asst/members
D- INFK	VMI Association of Scientific Staff of the Department of Computer Science www.vmi.ethz.ch
D- ITET	VMITET Association of the Mittelbau at the D-ITET www.vmitet.ethz.ch
D- MATH	VMM Verein des akademischen Mittelbaus am D-MATH www.math.ethz.ch/vmm
D- MATL	-
D- MAVT	AV@MAVT Assistierendenvereinigung des D-MAVT www.av.mavt.ethz.ch
D- MTEC	ScSt@mtec Scientific Staff Association at D-MTEC www.mtec.ethz.ch/about/mittelbau
D- PHYS	AMP Akademischer Mittelbau am Physikdepartement www.amp.ethz.ch
D- UWIS	(inactive)

#### AVETH - Realize Your Ideas

AVETH is a place where you can realize your ideas. AVETH activities are creative and inspiring. You can contribute to the work of the AVETH Board, project teams and work groups. If you have any ideas on how to improve life at ETH Zurich or for new events, or you know a practical solution to a problem, let us know.

Would you like to become a member?

- Register at www.aveth.ethz.ch, or
- Fill in the form sent to you by Human Resources together with your contract
- Tick the box when you enrol online for a new semester!

Would you like to contact us? Simply send an email to: info@aveth.ethz.ch

Follow the news regularly on our homepage: www.aveth.ethz.ch

Be informed. Be involved. Join AVETH!

#### **ASVZ**

The Academic Sports Club of Zurich offers the students and staff of both ETH Zurich and the University the opportunity to engage in a broad variety of activities. Courses taught by professional instructors, as well as opportunities to participate in over sixty sports, are offered at the university sport facilities located at ETH Zentrum-Polyterrasse, Fluntern, Uni-Irchel and ETH-Hönggerberg, as well as at various outdoor sites around Zurich. The sport centers are also open for individual use. The ASVZ aims to promote physical activities as an accompaniment to studying and working, emphasizing the benefits of physical and mental well-being for good health while providing recreation and relaxation.

Holders of a yellow legi are automatically considered members of ASVZ. Otherwise, a pass can be obtained from the offices of the ASVZ for a fee of CHF 100 per term / CHF 150 per two terms. With either the pass or legi, you are considered a member of the ASVZ and allowed free participation in almost all sport activities offered, as well as the use of the sports centre facilities. Some

activities and special courses organized in co-operation with external groups may require an additional fee (golf, tennis, paragliding, sailing etc.)

In addition to individual training, it is possible to participate in team sports such as unihockey, badminton, football (soccer) and beach volleyball to name but a few. Other services available through the ASVZ include massage, sauna, fitness evaluations and sports/ nutrition counseling. For some services, a minimal additional fee may be required.

Forest paths abound for meditative running or simply letting off steam. An event worth getting involved in is the SOLA-Stafette, a run held in early May each year. It is a relay race that takes place over long and short distances, through forests and over fields. Taking part in a team relay is a great way to meet people, see a bit of Zurich, ride the entire VBZ-network free of charge for one twenty-four hour period and have a great time.

If you start working at ETH Zurich but have not been officially registered as a Ph.D. student yet, you need to pay the yearly fee. You will get a partial refund once you present your student ID to the ASVZ.

Check www.asvz.ethz.ch

#### Membership for Partners

The ASVZ offers the opportunity to purchase a membership pass for your significant other, as well. The cost is CHF 500 annually. The pass can be obtained at any ASVZ info desk (currently at the Polyterrasse and the sports centers in Science City, Irchel and Fluntern. Forms can be downloaded from the homepage.

#### Languages

While doing your Ph.D., seize the opportunity to learn a foreign language! There are several offers at both ETH Zurich/the University of Zurich and from external companies. Browse the following pages to find out more.

#### Sprachenzentrum and AVETH Subsidization for German Courses

The Sprachenzentrum is the common language center of ETH Zurich and the University of Zurich. They recently reorganized its structure and the variety of language courses offered. ETH Zurich and the University are now charging a fee for doctoral students to take language courses. This also applies to other

"Akademischer Mitarbeiter"; on average, the fees currently listed are CHF 400 CHF, including for the beginners' German courses.

ETH Zurich recommends that professors subsidize language course fees for doctoral students and scientific staff as it helps to overcome some of the integration difficulties that a lot of newcomers have. English courses also help increase the success rate for paper submissions. Sometimes, professors are not willing to support their graduate students in this manner. If this is the case, AVETH members can apply to AVETH for a 20-percent discount on the A1 level beginner's German course if you register as a member (CHF 4/month).

#### Language Tandems

The Language Center's tandem exchange is geared towards students and staff at the University of Zurich and the ETH Zurich. Tandem learning is independent from participation in a language course. There is no fee for this service.

What is tandem learning? Tandem learning involves two people with different mother tongues working together to improve their foreign language skills. Tandem learning also allows participants to learn about different cultures and share cultural experiences. The approach is based on autonomous learning, with each partner being responsible for his or her own learning. The participants decide on their own aims, learning strategies and areas to cover within a set timeframe.

The Sprachenzentrum has also prepared a tandem contract for you and your tandem partner. It provides guidance on how to approach a tandem partner-ship: tandem@sprachen.uzh.ch

#### Migros Klubschule

The Migros Klubschule is the biggest further education provider in Switzerland, with more than half a million participants every year. They offer courses in Swiss German, More information is available at <a href="https://www.klubschule.ch">www.klubschule.ch</a>.

#### **ESN Events**

The international Erasmus Student Network in Zurich organizes a variety of events. Visit *zurich.esn.ch* to find out more.

# Troubleshooting

# **Family Affairs**

Planning on or already working at ETH Zurich? Awesome! Hoping to start a family at the same time? Even better! Reconciling family and work is one of the buzzwords at ETH Zurich. Of course, combining both lives will pose a challenge. This is why ETH Zurich created a range of services for employees with young children.

Up-to-date information on these services can be found on the ETH-Zurich Family Portal. The FAQ section on this page is interesting for both the employer and the employee.

www.family.ethz.ch

#### Legal Issues - Contact Human Resources

www.hrethz.ch

If you have any questions regarding bringing your family with you, please get in touch with the Human Resources Department. Your institute will provide you with the name of your administration assistant. It is advisable to enquire about the procedure before starting at ETH Zurich.

#### Daycare – kihz

www.kihz.ethz.ch +41 44 634 40 90

Perhaps the most important service is the kihz trust, which offers advice for parents in academia on finding daycare for their children, holiday care or special daycare during conferences. Here, you will also find a list of links to English speaking daycare centers in Zurich.

!NOTE! The information provided in German might be more detailed than in English. Check both just in case.

There are also offers for day care in Basel: www.kissnordwestschweiz.ch www.unibas.ch/kinderkrippe

#### **Changing Rooms**

http://www.sicherheit.ethz.ch/docs/health\_docs/sanizimmer http://www.family.ethz.ch/services/wickeltisch\_EN

A few rooms at ETHZ are specially equipped for diaper-changing. Don't be turned off by the mention of heart defibrillators in the text; these rooms were designed for general sanitary services...

#### **ASVZ Junior Club**

portal.asvz.ethz.ch/sportangebot/diverses/Seiten/JuniorsClub.aspx

The Academic Aports Association of Zurich (see → ETH-Zurich services for details) provides sports courses tailored to youngsters.

#### Golden Tricycle

www.family.ethz.ch/ethfamilie/dreirad/ goldenes dreirad@aveth.ethz.ch

The Golden Tricycle is awarded annually to ETH-Zurich team leaders, creating a remarkably family-friendly working environment for their team members. It was founded by the AVETH as a symbol of the importance of family, especially for a world-class research institute. Every employee is encouraged to send in a nomination. The award ceremony is part of the ETH-Zurich president's Christmas Apéro.

#### Pregnancy

For information about maternity leave etc., contact the Office for doctoral students, Office of Equal Opportunities for Women and Men at ETH Zurich, and/or Human Resources

#### **Day Nursery**

KiKri and the Kihz foundation provide day nursery centers. As the waiting lists are typically rather long, it is a good idea to arrange childcare as early as possible, preferably even during pregnancy. In addition, Kihz provides other services such as 'kihz holiday clubs'.

#### **Important Contacts:**

- Kikri www.kikri.ethz.ch
- Stiftung kihz Voltastrasse 59 8044 Zürich Tel 044 634 40 90 stiftung@kihz.ethz.ch www.kihz.ethz.ch
- Also check the information on the joint website of AVETH and the Office of Equal Opportunities for Men and Women at ETH Zurich: www.family.ethz.ch

# **Bullying**

Contact the Human Resources Department and find out who is responsible for the department to which your research institute belongs ("Personalchef/in"). Utilize the free Psychological Counseling Service. More detailed explanations on how to handle such a situation, as well as more contacts, are available on ETH Zurich's webpage on basic principles of mutual respect: www.respect.ethz.ch

#### Harassment

Unwanted sexual advances, requests for sexual favors and other visual, verbal or physical conduct of a sexual nature are classified as sexual harassment when

- it is implicitly or explicitly suggested that submission or rejection has consequences in the professional field
- the conduct interferes with the work performance by creating an uncomfortable work atmosphere

Considering the multi-national body of staff at ETH Zurich, various misunderstandings may occur as to what is considered reasonable behavior. Be sure to use clear words both orally and in writing when you disagree with the behavior of others towards you. Do not expect hints alone to be understood.

- The Office of Equal Opportunities for Women and Men at ETH Zurich, which provides support and advice on how to deal with such situations
- Nottelefon und Beratungsstelle für Frauen gegen sexuelle Gewalt. Here, a group of female psychologists gives psychological advice, legal counseling, information on discussion groups and self-defense courses etc.

- www.frauenberatung.ch info@frauenberatung.ch
- Mannebüro Züri. Here, men can get help in crises and obtain further information on discussion groups etc. www.mannebuero.ch Tel.: 044 242 08 88
- The FAQ section of a webpage outlining the principles of mutual respect at ETH Zurich: www.respect.ethz.ch
- A good book on the topic is Peinlich berührt sexuelle Belästigung von Frauen an Hochschulen by Hadmond Bussmann & Katrin Lange (Eds.), 1996. It describes general aspects of sexual harassment and past cases at universities in Germany. The book is available at the Office of Equal Opportunities for Women and Men at ETH Zurich. Furthermore, something which may prove very helpful is to ask people for advice, even if you yourself are not the one being harassed.

# Psychological Aid

Find the right balance between professional and private life. Get involved in social activities and leisure; do some sports. Distract your mind. Don't forget – it happens to everybody at some stage of her/his Ph.D. work and it will pass. If not, contact the Psychological Counseling Service.

www.pbs.uzh.ch

# **Difficult Supervisor Relationships**

# Your supervisor suggests a project that does not appeal to you

Listen to the suggestions. Do not say much at first, but do not give the impression that you are agreeing. Try not to get dragged down by unappealing aspects of the project. Maybe those 'negative' aspects are not as pronounced as you think and there just might be very appealing aspects you had not noticed at first! Write a list of the project's pros and cons. Point out the cons and suggest alternatives. Present this list to your supervisor and discuss it together. If she/he does not agree, a group meeting might be helpful.

### Lack of feedback from your supervisor

Dare to ask for feedback from time to time. You should have a clear idea of how your supervisor thinks your project is progressing. Often, good ideas and suggestions emerge during conversation. Do not expect your supervisor to

come and check on you every day. Your initiative is appreciated. Consult your supervisor. If this does not work for whatever reason, there is a last resort: As a Ph.D. student at ETH Zurich, you have the right to submit a written progress report at any time of your dissertation and your supervisor is formally obliged to comment on it ("Doktoratsverordnung", Art. 14). Of course, this is really the last thing you should try since it is not the most congenial method. Personal approaches are usually quite sufficient.

#### Corrections on your draft are not handed back

Dissertation drafts usually require laborious proof-reading on the part of the supervisor. If this process takes a long time, do not complain openly. Instead, try to motivate her/him (for instance, by indicating that a competitor is likely to publish soon; or that you are approaching deadlines, such as meetings abroad; or that you will soon no longer be available because you are starting a new job).

#### Total disagreement between you and your supervisor

Discuss the problem first with another professor in your department whom you can trust. Close colleagues may be more easily accepted by your supervisor to mediate the dispute.

Talk to the head of your department. At ETH Zurich, they have the duty of mediating between Ph.D. students and their supervisors ("Doktoratsverordnung", Art. 16).

If the going gets rough, find a solution together with the Prorector for Doctoral Students. Consider this to be the penultimate measure. If the mediation efforts of the head of the department fail, the Rector has the power to decide the matter ("Doktoratsverordnung", Art. 16).

#### Supervision of your Ph.D. project cannot be continued

The head of the department is responsible for finding possibilities of how the Ph.D. project can be continued ("Doktoratsverordnung", Art. 16).

#### Authorship of a paper is unclear

Discuss the authorship on a paper before the writing begins. Ask about the rules of authorship in the group. Usually, the contribution of data warrants authorship. Often, the order of the authors is a major bone of contention.

There are mutually satisfying solutions to this, such as additional comments ("both authors contributed equally to this work..."). Make sure you follow ETH Zurich's guidelines for research integrity and good scientific practice.

www.vpf.ethz.ch/services/researchethics/

# Workload is too high

Try to avoid this by making a time schedule before starting a new project and plan on hiring a student assistant ("Hilfsassistent") right from the start. Talk to your supervisor or use the group meeting to cry "help"... but never without a suggestion on how to solve the problem! Request a diploma student and delegate a small part of your project to her/him whilst acting as her/his supervisor.

Attend a project management course provided through Human Resources. Quite a few of these are geared towards the needs of academic staff. www.pa.ethz.ch

# Money gone; thesis less so?

You will be notified four months prior to the termination of your contract. Often, Ph.D. students are employed on annual contracts which are routinely renewed. Unfortunately, professors are sometimes rather forgetful about renewals. Try to avoid this by reminding your supervisor in good time about your contract. If, especially at the end of your dissertation, when the grant period is drawing to a close, a problem arises with the renewal, ask if she/he wants you to start looking for an additional job etc. Do not rely on vague promises but obtain a clear statement on how to proceed in the remaining time until your contract ends. Make suggestions for solutions. There are scholarships for doctoral students available; your supervisor should write you a letter of reference (for Swiss and foreigners with a Swiss residency permit). Contact Stipendiendienst des Rektorats, HG FO 21.1, Tel.: 044 632 20 40, for further information.

If you are no longer getting paid (if the funding runs out before you can finish your dissertation, you do not find a job immediately after finishing or you want to enjoy a long holiday after finishing your dissertation, for instance), you should make arrangements for your insurances. For questions concerning insurance, consult your contact person or the "Personalchef/in" in the Human

Resources Department responsible for the department to which your research institute belongs.

www.pa.ethz.ch

Non-professional accident insurance ("Abredeversicherung"). With a salary, your contributions to the Professional Accident Insurance ("Berufsunfallversicherung") and to the Non-professional Accident Insurance ("Nichtberufsunfallversicherung", NBUV) are paid automatically; without a salary, they are not. To keep the Non-professional Accident Insurance ("Nichtberufsunfallversicherung"), you can have it included in your private health insurance ("Krankenkasse"), but this is not recommended. It is better to arrange for the insurance through the Swiss National Accident Insurance Fund ("Schweizerische Unfallversicherungsanstalt", SUVA) with the Abredeversicherung. With the "Abredeversicherung", you can prolong the SUVA-insurance you had at ETH with the same benefits. It costs CHF 25 a month and the insurance can be extended for a maximum of 6 months. You are still insured by ETH Zurich for the first 30 days after your last paid working day, so you can start the "Abredeversicherung" after these 30 days (and save the fee for this period). After the maximum duration of six months, you have to include your non-professional accident insurance with your private health insurance ("Krankenkasse"). You can get the forms for the non-professional accident insurance and further information from ETH Zurich's Human Resources Department or directly from: SUVA, Schweizerische Unfallversicherungsanstalt

Dreikönigstrasse 7 Postfach 2823 8022 Zürich Tel. 044 205 91 11 Fax 044 205 90 20

Allocation of workplace ("Zuteilung eines Arbeitsplatzes"). The "Allocation of Workplace" form entitles you to use the infrastructure of ETH, i.e. the office and laboratory, in order to finish your dissertation. The form has to be signed by your supervisor.

Federal Pension Fund ("Pensionskasse des Bundes, PUBLICA") and AHV. If you no longer receive a salary, the contributions to the Federal Pension Fund and to AHV ("Alters- und Hinterbliebenen-Versicherung") stop. Without employment, you cannot contribute towards the pension fund, but you may

make a buy-in following a reengagement at ETH Zurich or if you continue to work in Switzerland. Regarding the AHV, however, you have to pay a minimum contribution. Please contact the AHV office for further information.

Pensionskasse des Bundes PUBLICA Eigerstrasse 57 Postfach 3000 Bern 23 Tel. 031 378 81 81 Fax 031 378 81 13 info.publica@publica.ch

AHV, Eidgenössische Ausgleichskasse Monbijoustrasse 5 3003 Bern Tel. 031 322 64 25 Fax 031 322 88 71

Unemployment Insurance ("Arbeitslosenversicherung", ALV). If you cannot find a job, you may apply for unemployment benefits. To register, you need to go to the Regional Employment Center (RAV) of the place where you are registered as resident. They will check whether you are entitled to receive Unemployment Insurance.

The basis for your unemployment benefits is the gross salary ("Bruttolohn") of the previous 12 working months (periods when you did not earn any money, such as unpaid vacations, are not considered), irrespective of your degree of employment. In other words, a 60-percent salary as a Ph.D. student will not be converted into the salary for 100% employment.

For general information, contact:

www.rav.zh.ch

# **AVETH Help**

We offer you consulting and advice services. Whenever your relations with your supervisor get tough, we are always ready to help resolve the issue. We treat all cases confidentially. On our homepage, you will find a section on how to contact us (if you so desire, this can also be anonymous).

# Finishing a Ph.D. Thesis

The procedure of finishing a thesis is not only dependent on the department, but to an even greater extent on individual professors. When you have reached this point (normally after at least three years), you should discuss the matter your professor and have visited the doctoral administration website <a href="https://www.rektorat.ethz.ch/doctorate">www.rektorat.ethz.ch/doctorate</a>.

# Paper-Based & Normal Dissertations

A rather new development is the adoption of a system known as a paper-based dissertation. Instead of writing a complete thesis, all the papers that have been published by the doctoral students during their time at ETH Zurich are taken as the body of the thesis text. The student only needs to add an introduction and conclusions. While this may seem like a very comfortable option at first, keep in mind that this way of finishing requires a thorough check of the copyright laws (may a figure that has been published in a journal be published again in a thesis?) and co-authorships (you rarely have a paper of your own; usually there are contributors). Leave plenty of time for this before handing over the thesis to your examiners.

# Printing the Thesis

You can do this using the Distributed Printing and Plotting service. They have VPP stations all over ETH Zurich so there should be one near your office. Normally, you send a postscript file containing your document via the web interface to a suitable VPP station near you and collect the printout later. Often, you can create postscript versions of your document by using the "Print to File" function. The print file format on Windows systems actually contains postscript (ps). For further information, check the VPP homepage. www.vpp.ethz.ch.

# The Defense

Once again, this is highly dependent on the department. In most cases, it consists of a public presentation of about half an hour to an hour followed by public and sometimes private question sessions. Keep in mind that there are no grades for finishing a dissertation at ETH Zurich, so be relaxed and simply well prepared. The chances are that at the time of your defense, you will be

the only one on this planet who knows so much knowledge about your subject anyway;)

# Alumni Network

ETH Zurich has a strong and committed network of alumni that are still connected to their university. They are organized via the ETH Alumni club. They offer events, a web-based platform, meetings, career services and many connections to other alumni. You automatically become an ETH Alumni member free of charge for one year after you finish. After that, you can decide if you want to remain a member or leave. Given the huge amount of services offered, AVETH recommends you stay a member!

The address is www.alumni.ethz.ch.

# **Career Services**

Be sure to look for a job in plenty of time once you have a rough idea of when your defense will be. ETH Zurich offers a comprehensive set of career services starting from job offers, checking your CV, careers events, mentoring, a collection of useful links, personal consultation and more.

Information is available at www.career.ethz.ch.

# **Leaving Switzerland**

Don't forget to return all of your ETH-Zurich keys, student card and, unfortunately, the Halbtax-Abo, as well. If you leave ETH Zurich but remain in Switzerland, you need to complete the same formalities as Swiss employees upon leaving. Further information is available on the Human Resources Department's webpage under the section "Services". For any further information, please contact Human Resources and the administrators who are in charge of your department.

www.pa.ethz.ch

# **Legal Affairs**

After your employment contract runs out, you have to leave Switzerland while your residency permit is still valid. If you plan to get a new contract in Switzerland, you should arrange your contract in advance to obtain a regular work permit. The procedure is the same as for a foreigner moving to Switzerland for the first time and can take up to two months. The employer has to prove that he is not able to find a suitable applicant locally; you must have qualifications that are in high demand in Switzerland and the quota of foreigners (about 2000 per year for Zurich) should not have reached its limit. Before departing, you should return your residency permit to the office you got it from ("Kreisbüro"). They should, in turn, give you a confirmation slip stating that you have returned the permit, which you will need to retrieve PK- and AHV money.

### Health Insurance

Do not forget to cancel your contract.

### Accident Insurance

Within a month of the end of your contract, your obligatory accident insurance (SUVA) will run out. If you plan to stay in Switzerland longer, you can prolong your SUVA-insurance for another 180 days (ask ETH Zurich's Human Resources) or get a private one, such as from your health insurance company.

# **Financial Affairs**

### Pension Funds

You should receive a form from ETH Zurich's Human Resources that enables you to retrieve your pension fund fees. Please note there are specific rules if you leave Switzerland for a state belonging to EU or EFTA. Further information is available at www.ahv.ch

You must open a special account ("Freizügigkeitskonto") at a Swiss bank and mail the contract along with confirmation from the Kreisbüro that you have returned your residence permit and the form you received from Human Resources to the pension fund. If you are married and entitled to withdraw your money from the pension fund, you need your spouse's signature to retrieve the PK fees. If you fail to give notice to the pension fund PUBLICA within 90 days, your money will be transferred to the "Stiftung Auffangeinrichtung BVG" in Zurich, where you can claim it later.

### **AHV Fees**

If your country of origin has an agreement on social security with Switzerland (EU countries and USA; a list of these states can also be found in the AHV leaflet), you cannot retrieve your AHV fees in Switzerland. You can claim the pension you have accumulated when you satisfy the conditions. If your country of origin has no such agreement with Switzerland and you do not reclaim your money within a month after leaving the country, you will simply lose it

This money [from ALV] cannot be reclaimed upon leaving Switzerland. However, if your home country has got a social security agreement with Switzerland (a list of these states can be found in the AHV-leaflet; see Addresses section), you may be entitled to this money from the unemployment insurance in your home country.

# ETH-Zurich Services and Clubs

For decades, a variety of organizations have existed within ETH Zurich, helping Ph.D. students with social, cultural and many other aspects and thus making Ph.D. students' lives easier and more enjoyable. In the following chapter, we would like to provide a brief overview of these diverse organizations, including different interest groups, service organizations and hobby clubs. However, it should be remembered that it is impossible to make a complete list.

For more detailed listings and further information, please check the semester program, the ETH directory, the ETH-Zurich Homepage (check "Vereinigungen von ETH-Angehörigen und Alumni" under the heading "Campus Info") and other ETH-Zurich publications. The best source of current information is the bulletin boards located near each cafeteria, where information for activities organized by official ETH-Zurich organizations and external groups is posted regularly. Furthermore, there are some clubs that are common to both the University of Zurich and ETH Zurich, and a lot of university activities are open to ETH-Zurich students as well, so also have a look at University ads and homepages.

# **ETH Services**

## **General Services**

ETH Zurich provides a range of services to facilitate your daily work. In this chapter, we provide links to the official services pages and briefly outline the services we think are most useful for a successful start at ETH Zurich.

General services including the phone service, car rental, transport, shipping, office supplies, repairs, workshops, printing business cards, print design and, yes, a university forest.

www.dienste.ethz.ch

### IT Services

ETH Zurich provides excellent IT services. The IT services range from the provision of software and hardware, printing services, email, voip and tm provisions, and help desk services to supercomputing facilities. We only

present a small selection here. Look at the following links for a complete overview:

www.id.ethz.ch

## nETHZ Account

All official ETH-Zurich services can be accessed with this password. Details specific to your account can be handled with the Admin Tool. You can modify your ETH-Zurich account, create guest accounts, join a range of IT services, and use the e-mail and calendar service.

www.password.ethz.ch

# ETH-Zurich Employee Search

Find phone numbers and much more. ETH-Zurich uses an LDAP service that can also be accessed by a suitable client (e.g. Outlook). Just type name@ethz. ch on any Unix machine to find data.

www.personen.ethz.ch

# **Printing Service**

Distributed printing service at ETH Zurich: www.vpp.ethz.ch

# Web Shops

To order office supplies or office furniture: www.shops.ethz.ch

### Software

Need software? Order it directly from the informatics service group via IDES: www.ides.ethz.ch

# **Computational Power**

Need more power to do your math? ETH Zurich has a high-performance cluster that is accessible to all employees:

www.brutus.ethz.ch

### IT Courses

IT courses including CSS, Illustrator, InDesign, Latex, Linux, PHP and Photoshop:

www.compicampus.ethz.ch

# Statistical Help

Are you confused by your statistics? Professional help is at hand at ETH Zurich via Professor Stahel's group:

http://stat.ethz.ch/consulting/berating@stat.math.ethz.ch

# Library

Access to a large number of contracted journals, literature and book delivery services (including free delivery to your office!):

www.library.ethz.ch

# Car-Sharing

ETH Zurich is part of the mobility network in Zurich: www.eth-karte.ethz.ch/mobility/

# **Intellectual Property Protection**

ETH Zurich has support for licensing and patenting issues, as well as for founding a spin-off.

www.vpf.ethz.ch/transfer/

# Catering

If you happen to be in charge of an event at ETH Zurich, you may want to use the ETH-Zurich catering service:

www.gastro.ethz.ch

# Workshops

Workshops are conducted at departmental level. Get your gadgets build on

D-ITET www.werkstatt.ee.ethz.ch
D-ARCH www.raplab.arch.ethz.ch

D-PHYS www.phys.ethz.ch/phys/dep/dienste/techbetr/zentwerkstatt/

 $\hbox{D-ERDW} \quad www.geo-machine-shop.ethz.ch$ 

# **Diverse Political bodies and Interest Groups**

### **AVETH**

Doctoral students, research assistants, post-docs and all other academic employees who are not faculty at ETH Zurich are united in one group called scientific staff (in German "Mittelbau") the second largest group at ETH Zurich after the students. We are responsible for political representation, organizing events, acting as troubleshooters and, finally, writing survival guides. Check the chapter on AVETH in this book or visit:

www.aveth.ethz.ch – info@aveth.ethz.ch

### **AIESEC**

AIESEC is one of the largest student organizations in the world and has 50,000 members across more than 83 countries and territories at more than 800 universities worldwide. AIESEC is a non-political, non-profit, independent and educational foundation. It is comprised of students and recent graduates of institutions of higher education, who are interested in economics and management. AIESEC facilitates the international exchange of thousands of students and recent graduates in paid traineeships or as volunteers for a non-profit organization.

www.zh.aiesec.ch

### **IAESTE**

IAESTE was founded in the United Kingdom in 1948. It is a non-political, independent, non-governmental association, consisting of national committees in more than 60 countries. IAESTE operates an exchange program for students of technical and natural sciences. In order to provide students at institutions of higher education with technical experience abroad and an international perspective worldwide, traineeships are arranged. Information events at universities, trips to international events, activity weekends, weekly meetings and an attractive summer program for foreign trainees are organized regularly.

www.iaeste.ethz.ch

### **KOSTA**

KOSTA, a subgroup of the VSETH (Student Association of ETH Zurich), not only organizes the SOLA-Party, but also the famous Polyball. This is an established event in the annual agenda of Zurich society. To complete the decoration for

the ball, KOSTA is always looking for creative people to help out in the Töga ("Töffligarage") at ETH Zurich during November. New members who enjoy improving their skills in the field of event management in a lively environment are always welcome to join KOSTA.

www.kosta.ch

### L-Punkt

L-Punkt was founded in the spring of 2010 as a university club geared towards lesbian and bisexual women at the universities in Zurich. L-Punkt's main goal is to provide all lesbian students with a platform where they can gather, network and share

### **VSETH**

VSETH is ETH Zurich's student association. Many Ph.D. students are also members of the VSETH. They organize a huge variety of events and take care of the political representation of students.

www.vseth.ethz.ch

### 7&H

z&h, formerly zart&heftig, the association of gay students and assistants, was founded in 1989 and provides support for all scientific, political and personal matters concerning homosexuals at ETH Zurich and University. The association currently has about 300 members and has representatives on various committees at ETH Zurich and the University of Zurich. z&h also organizes film evenings, book readings, dinner parties and many other social activities in order to openly live gay culture at both ETH Zurich and the University, and to promote its general acceptance. The association is open to students and assistants of ETH Zurich and the University of Zurich. The membership fee is CHF 20 per term.

www.zundh.ethz.ch

# **Service Organizations**

# ETH Bookstore (Polybuchhandlung)

The ETH Bookstore stocks (or can order) nearly all the books required for studies and research at ETH Zurich and spare-time reading. They operate two stores: one at ETH Zentrum and one at ETH Hönggerberg. Students and

employees receive a five-percent discount on all book orders, increasing to ten percent for orders from non-German language publishers. Books can also be ordered through the website.

www.polybuchhandlung.ch

# The Psychological Counseling Service

This counseling service offers professional advice for people who are experiencing difficulties in the workplace or private life. The special requirements and stresses placed on a person doing a doctorate or an assistantship can lead to working disorders or personal problems, such as lack of concentration and the inability to make important decisions or deal with competitive situations or interpersonal conflicts.

Professional advice provides insights into patterns that cause disturbances and can activate resources to find constructive solutions. The counseling service is free and all contacts are treated completely confidentially. The service is available both during the term and in the semester holidays. Appointments must be made in advance.

www.pbs.uzh.ch

# Student Research Opportunities Program (SiROP)

SiROP is a network to advertise research projects. Researchers who work at ETH can advertise various project types, such as internships and Bachelor's or Master's theses, for free via a standardized interface.

www.siropglobal.org

### SOS ETH

SOSeth is a service organization open to all students, assistants and academic guests. In return for a nominal membership fee (CHF 5 for an ETH-Zurich student), SOS ETH sponsors a number of activities and services free of charge or at very low cost, including darkroom facilities (b/w and color), video-editing equipment, digital image processing and a fax service. They also hold movie nights at regular intervals during the term. Bring your own popcorn and enjoy some fine films free of charge! Announcements are made on their website, printed in Polykum/ETH-Life print or Zürcher Studentin, and are posted on various notice boards around ETH Zurich.

www.sos.ethz.ch

# Self-Help-Co-operative SAB

The SAB is a co-operative founded over thirty years ago by students at ETH Zurich. It maintains a well-selected stock of office supplies and stationery, laboratory coats and personal lab supplies, greeting cards and posters, as well as other ETH paraphernalia, sold at reasonable prices. A film developing service is also available. Any profits made are returned to the students through special discounts.

www.sah.ethz.ch

### Studentenladen Uni Zentrum

ladenz@zsus.uzh.ch

# Studentenladen Uni Irchel

ladeni@zsuz uzh ch

# Telejob

Telejob is the leading on-line portal of ETH Zurich for academic jobs in Switzerland. University graduates at bachelor, master or PhD level can find work opportunities in academia and industry. They advertise over 400 vacancies and have around 60,000 visitors monthly.

Telejob is a part of AVETH and is managed partially by students. They are organizing seminars addressing job applications, career start, and financial planning. Their team is administering the Telejob homepage, planning budget, running accounting and deciding on marketing strategies. They also always welcome students interested in joining the team. Please write to: recruiting@telejob.ch

www.telejob.ch

# **Music Clubs**

The instrumental and choral groups, whose members are mainly students at both ETH Zurich and the University of Zurich, are almost always on the lookout for new faces and voices. The level of musical talent varies – from purely amateur to aspiring professionals – as does the frequency of rehearsals and performances. Look in the Semester Program under "Freizeit" for further descriptions and up-to-date contact information.

The Academic Orchestra of Zurich ("Akademisches Orchester Zürich", AOZ, http://www.aoz.ethz.ch/) is a joint organization of the University and ETH Zurich. Founded around 1900, it has almost 90 members. The orchestra strives to promote talented musicians and has given concerts in Switzerland and abroad. The orchestra is always eager to recruit new members.

# Additional music organizations are:

- Akademischer Chor ACZ (choir) www.acz.ethz.ch
- Akademisches Kammerorchester Zürich AKO (chamber orchestra)
   www.ako.ethz.ch
- colla voce (choir) www.collavoce.ethz.ch
- ETH Big Band www.ethbigband.ch
- Kammermusikvereinigung der Zürcher Hochschulen (chamber orchestra)
   www.kvzh.uzh.ch
- Music Platform (soloists and small ensembles) www.musikplattform.ethz.ch
- Polyband (big band) www.polyband.ch

# **Sport Clubs**

- The ASVZ (see the corresponding chapter) www.asvz.ch
- Akademischer Alpen Club Zürich AACZ (hiking, climbing) www.aacz.ch
- Schweizerischer Akademischer Skiclub SAS (skiing) www.sas-ski.ch
- Volleyball Club Spada Academica SPADA (volleyball) www.vbcspada.ch
- Studenten Wasserball Zürich SWZ (water polo) www.swz.ethz.ch

# **Country-Specific Associations**

- Association of Chinese Students and Scholars www.acssz.org
- Association francophone des étudiants de Zurich www.afrez.ethz.ch
- Hellenic student organisation www.efsz.ethz.ch
- Egyptian students association www.esaz.ch
- Erasmus student network zurich.esn.ch
- Indian student association www.insaz.ethz.ch
- Luxembourger students organisation www.lsz.lu
- Nordiska Roddföreningen: www.nordiska.ch

# **Field-Specific Associations**

- Model United Nations ETHZ: www.mun.ethz.ch
- Electrical engineering students' European association www.eestec.ethz.ch
- European students for industrial engineering and management www.estiem.org
- International association of students in agriculture and related sciences www.iaas.ethz.ch
- Ingenieure ohne Grenzen Schweiz

# Libraries, Collections and Archives

### Campus Zentrum

### Archive of Contemporary History

HRG (map: see B 4)
Hirschengraben 62
Phone +41 44 632 40 03
www.afz.ethz.ch
appointment required

### **Botanical Herbarium**

(not on the map)

Zollikerstrasse 107

Phone +41 44 632 74 38

www.zuerich-herbarien.ethz.ch

appointment required

# Collection of Prints and Drawings of ETH Zurich

ETH Main Building (map: see B/C 4)

Rämistrasse 101

Phone +41 44 632 40 46

www.gs.ethz.ch

Exhibitions: Mon to Fri 10 am - 5 pm,

Wed 10 am - 7 pm

Collection and library: appointment required

### ETH Library (ETH-Bibliothek)

ETH Main Building (map: see B/C 4)

Rämistrasse 101

Phone +41 44 632 21 35 www.library.ethz.ch

Mon to Fri 8:30 am - 9 pm, Sat 9 am - 4:45 pm

### focusTerra

NO (map: see B 3)

Sonneggstrasse 5

Phone +41 44 632 62 81

www.focusterra.ethz.ch

Mon to Fri 9 am – 5 pm, Sun 10 am – 4 pm

### Insect Collection

LFO (map: see C 3)
Schmelzbergstrasse 9
Phone +41 44 632 39 08
www.entomologie.ethz.ch
appointment required

### Max Frisch Archive

ETH Main Building (map: see B/C 4)

Rämistrasse 101

Phone +41 44 632 40 35 www.mfa.ethz.ch appointment required

## Special Collections of ETH Library

ETH-Main building (map: see B/C 4)

Rämistrasse 101

Phone +41 44 632 21 82

www.library.ethz.ch/Spezialsammlungen

Mon to Fri 10 am - 6 pm

### Thomas Mann Archive

SOB (map: see C 5) Schönberggasse 15 Phone +41 44 632 40 45 www.tma.ethz.ch appointment required

Museum: Wed and Sat 2 pm - 4 pm

# Zoological Collection and Anatomy of Domestic Animals

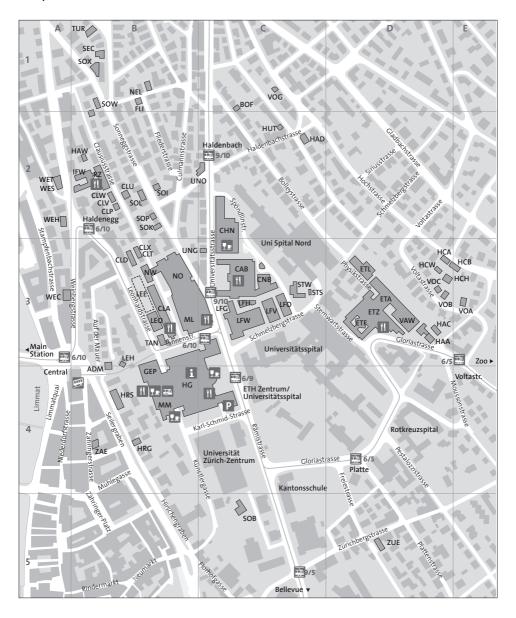
LFW Patio (map: see C 3)
Universitätstrasse 2

Phone +41 44 655 74 97 / + 41 44 632 32 75

www.ethz.ch/libraries/collections/domesticanimal

Mon to Fri 8 am - 6:30 pm

# Campus Zentrum





Cable car "Polybahn"

ETH shuttle "Science City Link"

Canteen

Cafeteria

Information desk (phone +41 44 632 25 50)

### Further libraries:

www.ethz.ch/libraries

# Campus Hönggerberg (Science City)

# Archive gta

## Collections and archives:

www.ethz.ch/libraries/collections

HIL C 65.2

Wolfgang-Pauli-Strasse 15

Phone +41 44 633 29 08

www.archiv.gta.arch.ethz.ch

appointment required

# **Chemical and Pharmacognostical Collection**

HCI, H-level

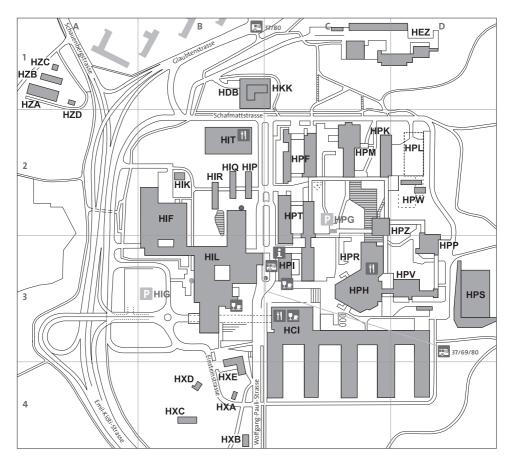
Wolfgang-Pauli-Strasse 10

Phone +41 44 632 60 81

www.chab.ethz.ch/museum

Mon to Fri 8 am – 8 pm

# Campus Hönggerberg (Science City)



- Bus stop
- ETH shuttle "Science City Link"
- **TI** Canteen
- Cafeteria
- Science City Welcome Desk (phone +041 44 633 64 44)

All buildings and parking garages are handicapped accessible. For more information contact Science City Welcome Desk.

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info@aveth.ethz.ch

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# telejob.ch The academic Jobmarket

Telejob is the biggest jobmarket of ETH Zurich advertising jobs and internships for students and graduates.

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