

# PhD *in* Computer Science@Unipi

## SOME NOTES FOR STUDENTS



Welcome to the PhD program in Computer Science at Unipi! We are excited to have you on-board and can't wait to see the cool scientific results you'll achieve here.

This document is meant to be a handbook to help PhD students keep track of the main duties and rules of their journey to become a CS PhD at UniPI. It contains (sketch of) rules and generic advice that we think are useful on what you are usually expected to achieve by the end of the three years of the PhD course. This was written by fellow PhD students to help newcomers, it has no legal value and it is in no way a substitute of the official regulations. We suggest you to use it as a high-level guide for your initial PhD period and, for any further inquiry, you can refer to the PhD Committee Chairman (shortly **p.c.c.**): *Prof. Paolo Ferragina*<sup>1</sup>, and to the official regulations as well as to the administrative staff for issues concerning taxes, payments, bureaucracy, rules, duties, etc. mentioned in this note.

## 1 Introduction

Your main goal as a PhD student is to *do challenging, innovative and impactful research*, i.e. push the knowledge of mankind towards directions that no-one has explored before and could be useful to the society in medium-long time. One of your first steps is to find a professor or a researcher who gives you advice, mentoring and guidance to help you in your PhD journey and is available to be your supervisor. Note that you don't have to stick to the ideas you had the very first day or the first professor you talked to. Finding out exactly what you want to do and which supervisor you wish to have is your goal for the **first year**.

Moreover, don't worry if you don't achieve scientific results immediately! As a trusted source once said, "research is 95% failure and only 5% success". So work hard, stay motivated, explore many different avenues of research and you will eventually get to that important 5%.

Finally, two quick tips to start:

- ask *Enrico Carpentras* how to get your new academic email address and to add it to the **[dottorandi.di]** mailing list; then
- ask the personnel of the Director's secretary office (*Letizia Petrellese*, *Giovanna Contaldo* or *Simona Moi*) to add that address to the **[dipartimento.di]** mailing list; finally,
- ask *Giancarlo Bigi* for the assignment of a desk in one of the PhD students' rooms.

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<sup>1</sup>Home page: <http://pages.di.unipi.it/ferragina>

## 2 Courses and Seminars

As a PhD *student*, you are required to complete **6 PhD courses** and **3 seminar cycles** by the end of your PhD. They **must be approved in advance by the PhD Committee**, so you have to communicate to the **p.c.c.** this list **before** attending the courses/seminars. Since the available courses change every year, your list can be partial and you can complete it during the three years.

A **PhD course** is shorter than a classical University course: it should consist of (about) 20 hours of lectures and a final exam. The courses offered every year are published at: <https://www.di.unipi.it/en/phd/phd-teaching/phd-courses>

A **cycle of seminars** is a series of seminars, without a final exam. To complete the cycle you are usually expected to attend more than 80% of the seminars, and sometimes you are required to give one of them. The list of seminars offered every year is published at: <https://www.di.unipi.it/en/phd/phd-teaching/phd-seminars>. Briefly,

- The **Mauriana Pesaresi** seminars is a place for PhD students to meet and present the challenges of their work in a friendly, informal environment. This cycle of seminars is dedicated to the memory of Mauriana, a fellow PhD student who sadly passed away.
- the **PhD Plus** seminars are about innovation, research valorisation and startup creation. You will learn from experts of various domains everything you need to build your own startup and how to make value of your research, not necessarily as a business but also in terms of grants and funding.
- The **Department seminars** about innovation in ICT and industrial challenges, they are announced every month and see the participation of prestigious worldwide speakers with whom you can talk the day of the seminar by fixing an appointment (take this chance!).
- From cycle XXXIII other kinds of seminar cycles will be introduced and you have to look at the above web page to be informed on them.

Courses and seminars are **not restricted to those listed here**. The PhD Committee can approve courses and seminars attended elsewhere: for example you can attend PhD schools or courses of the Master's Degree in Computer Science at UniPI, Florence or Siena. Since the Master's courses take more hours (6 CFU = 48 hr, 9 CFU = 72 hr) and are easier, the "conversion" into PhD courses will be decided by the PhD Committee taking into account the whole list of courses presented by the PhD student. In any case, it is important that each attended course has a final exam (except for seminars). Of course, one can also attend relevant PhD courses and seminars offered by other departments or PhD courses, but it is crucial that the amount of hours is at least 20 (or very close to).

Furthermore, you can attend courses offered by the Institution which hosts you during your period abroad (Section 5), but in any case you have to ask the PhD Committee in Pisa to **approve them before you attend them**, by sending to the **p.c.c.** a description of the courses.

As far as PhD schools are concerned, we mention one of the most popular ones which is the **BISS** PhD school in Bertinoro: it offers courses which consist of less than 20 hours, so 2 BISS courses are normally counted as 1 PhD course, and 3 are counted as 2.

Please inform by email Enrico Carpentras ([enrico@di.unipi.it](mailto:enrico@di.unipi.it)) about the exams you pass and their score (/20). Every student can check the list of exams that he/she has passed and have been registered in the page: <https://www.di.unipi.it/en/phd/careers/students-exams>. Actually you have to login at the main page of the PhD (<https://www.di.unipi.it/en/phd>) with your credentials, and then click on the menu **Student Activities/Student exams** on the left of the page to get there.

## 3 Scholarship

Some PhD students will have a scholarship paid by one of the following entities: the Italian Ministry of Education, the Tuscan region or other Institutions (such as the CNR). To maintain your status of

PhD student and your scholarship, you are required at the end of each year to report on your progress (see Section 6). Some scholarships may have some additional requirements. For example, while all students are **highly recommended** to spend a period abroad (Section 5), this is **mandatory** for the scholarships paid by Tuscan region (Pegaso); other conditions can include things like sending your yearly progress report to some specific office. So make sure which one you have and if it has additional conditions.

Like other degrees, the PhD in Computer Science has **tuition fees** that are usually covered by your scholarship, if you have one. However, you may still need to pay other fees (either once or yearly). We strongly suggest you to ask for updated information on them to the PhD office of UniPI, because they may be subject to changes.

Since cycle XXXIII (2017-18) the duration of the PhD is **strictly limited to 3 years**. No extension is possible. The only exception is, if your thesis is deemed insufficient by the reviewers after the end of the third year, you may be given up to 3 months to improve it (but your scholarship will not cover these months!). Finally, you may **suspend** the PhD (and thus the scholarship) at any time if you are unable to work due to serious reasons (approval of the PhD committee is required) such as maternity leave.

## 4 Funds and Missions (conferences, workshops and schools)

If your research leads to some scientific results that have to be presented at a Conference, then you can afford the expenses such as travel/lodging/food and conference fees thanks to some **extra funds**, informally called “10% funds” (as they amount to 10% of the income of your second and third year). You will have access to those funds only at the second and third year of your PhD, and each year you can spend only the year-assignment. Sometimes this fund may also be used to pay for attending interesting/important **workshops** (essentially a conference, but without proceedings), or a PhD school (you are a student after all). You have to talk in advance with the **p.c.c.**.

Students without fellowship can also benefit of the 10% funding, which is offered by the Department in this case.

Your **supervisor** may grant you access to additional funds that you may use for other expenses such as travelling or buying instruments (PC, laptop or any specific hardware or service that your research needs).

To get reimbursement for any of your trips (it is called “mission”), you need to perform the following steps:

- **before** the mission, you need to fill the document called “richiesta di missione” (“notification of mission”, available at <http://info.i.et.unipi.it/~luigi/missioni/moduli>), in which you describe the mission and you need the signature by the **p.c.c.** and by the owner of the funds (if you use your 10%-funds then you need the approval of the **p.c.c.**). The compiled form must be given to Ms. *Ramona Serafini* who is the admin in charge of managing your reimbursements. Refer to her for any issue concerning missions.

We point out that the Department **must** pay some of these expenses directly via the departmental credit card: for example, the cost of the **registration** to a conference/workshop or school. It is also convenient to use it for other expenses, such as costs of the flight/train and the hotel. Please refer for this to the Director’s secretary office: *Letizia Petrellese, Giovanna Contaldo* and *Simona Moi*.

- **during** the mission, you need to collect **all** the receipts and your boarding passes or train/bus tickets.
- **after** the mission, you need to fill the document called “rimborso missione” (available at <http://info.i.et.unipi.it/~luigi/missioni/moduli>): a form which details the expenses and needs to include **all** receipts. Please write the amounts of the expenses in foreign currency.

Travel costs may refer also to your period abroad, but in this case please pay attention on the following: if you have a scholarship, then you can get the pre-paid only of the travel costs

(the food and lodging are assumed to be paid with your scholarship's increase); if you do not have the scholarship, then you can charge the costs of travel/lodging/hotel onto your 10% or some departmental funds provided that the PhD Committee (and, before, the **p.c.c.**) approves them. Please go to Director's secretary office specifying your status.

There are limits on how much you can spend for food and constraints on the kind of hotel/travel you can book. These limits depend on the country you are travelling to. Have a look at the table available at this footnote<sup>2</sup> (PhD Students are categorized as "Classe 2"). A general rule is that you must travel in economy class, and book three-stars hotels. You can get the reimbursement for up to two meals per day, and each meal must be reported on a single receipt (in other words, you can have reimbursement for up to two receipts per day); meals can be bought at a supermarket, and in this case too you need to keep the receipt. Please note that tips will be not reimbursed if they are not printed but written by pen. You are not allowed to go by car, if you do will be reimbursed the cost of the same trip by train.

## 5 Period Abroad

This is a great opportunity to meet new people and widen your research horizons. Depending on your scholarship, you usually get up to a **50%** increase in your salary during these months to cover (at least partially) your extra expenses.

The scholarships **Pegaso** require you to spend a period abroad of a minimum of 6 months or 12 months, depending on your scholarship. Other scholarships (CNR and MIUR) will not, but it is highly recommended to all PhD students to spend a period abroad of at least 6 months. All scholarships (Pegaso, MIUR and CNR) offer an increase of 50% for the period abroad, up to 18 months.

The location should be an excellent University, research institute or research lab of a company where you can work with people with similar interests yours. Usually this period, the location and the research subject are chosen by you along with your supervisor. You are typically allowed to split your period abroad in two or three different places.

You will of course need approval from the PhD committee, and present a "richiesta di missione" (see above).

The period abroad is not formally considered a "mission", and if you have a scholarship you are not eligible for refunds for food or housing (those should be covered by the increased salary). You **can**, however, ask for a refund on your "10% funds" for **travelling** to/from your destination (only one period abroad). As stated before the Department can pay directly these costs via its credit card: please refer to the Director's secretary office. If you do not have a scholarship, then you can (pre)pay your travel costs and lodging/food costs using your 10%-funds, and sometimes some extra funds of the PhD, but you need in any case the approval of the **p.c.c.** and the PhD committee.

## 6 Progress reports and pitches

At the end the first and second academic year, a PhD Committee will evaluate your proposal and progress, while at the end of the third year you will have to submit your PhD Thesis. The evaluation typically occurs in October: the dates will be announced via the [**dottorandi.di**] mailing list. The committee will decide to either (i) admit you to the next year; (ii) ask you to do further work (a new review will be scheduled, usually in three to six months); (iii) kick you out of the PhD program (if you did not perform sufficient and promising work that foresees the Thesis achievement).

In case you are asked to do further work, you shouldn't worry too much: the commission thinks that you are lacking attention on some aspects of your research, and gives you recommendations that you have six months to implement. Like any other evaluation you will receive, this is intended to let you build your research on more solid bases. It is very important to **be bold and accept their criticisms**.

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<sup>2</sup>[https://www.di.unipi.it/images/documenti\\_amministrazione/segreteria/missioni/AreePaesiEsteri.pdf](https://www.di.unipi.it/images/documenti_amministrazione/segreteria/missioni/AreePaesiEsteri.pdf)

Here we report the main deadlines, details follow in the next subsections. Please remember that we are referring to academic years, so they start at November 1<sup>st</sup> (of year  $x$ ) and end next October 31<sup>st</sup> (of year  $x + 1$ ),

**First Year:** Let us assume that you start your PhD in November of year  $x$

- November of year  $x$ : You need to complete all official duties and documents by going to the PhD Office of our University and pay the corresponding taxes.
- Around September of year  $x + 1$ : You have to propose to the **p.c.c.** and to the PhD Committee the name of your supervisor, who has been possibly chosen before (at this time he/she becomes the official one).
- October of year  $x + 1$ : You have to submit your Thesis proposal and discuss it in front of the internal Committee formed by three (or more) professors/researchers, including your supervisor.

**Second Year:**

- November of year  $x + 1$ : The PhD students that hold a Pegaso scholarship (funded by Tuscan region) have to write a report of their first year of activities and research, signed by their supervisor. They have also to pay the regional tax.
- October of year  $x + 2$ : You have to present and defend your research activities in front of the internal Committee, assigned the year before. This time the report to the Committee is not required.

**Third Year:**

- November of year  $x + 2$ : The PhD students that hold a Pegaso scholarship (funded by Tuscan region) have to write a report of their second year of activities and research, signed by their supervisor. They have also to pay the regional tax.
- October of year  $x + 3$ : You have to submit your PhD Thesis, approved by your supervisor, and compile and submit the required documentation on-line (see the information at the site, now only in Italian: <http://dottorato.unipi.it/index.php/it/dottorandi/item/212.html>).

**After the end:** In November of year  $x + 3$  and next months

- The internal Committee will evaluate your PhD Thesis and, in case of a positive judgment, it will be assigned the two International Referees that will review it in the following two/three months (details follow).
- The PhD students that hold a Pegaso scholarship (funded by Tuscan region) have also to submit a report detailing their activities performed during their PhD period, signed by their supervisor.

## 6.1 End of First Year

- You formally propose to the PhD Committee (via the p.p.c.) who will be your **Supervisor(s)**. Though this must be formally proposed at the end of the first year, it is strongly suggested to find your supervisor as soon as you can and informally propose him/her to the **p.c.c.** in advance. If you cannot find a supervisor, the **p.c.c.** can assist you in that.
- Prepare a **Thesis Proposal** in collaboration with your supervisor (L<sup>A</sup>T<sub>E</sub>X style article, 11pt, default margins, 30 pages), and send it to the **p.c.c.** and the members of your committee (who will be appointed by the **p.c.c.**, in collaboration with the PhD Committee).
- Be ready to present and defend your Thesis Proposal in front of the committee (usually 40' plus questions). During the presentation you will get feedback from the Committee that you **must** follow in updating the proposal and/or in shaping the next years of your PhD.

Concerning the structure of the Thesis Proposal: it must not exceed 30 pages including references, but excluding title page, contents and indexes (please use: 11pt, standard L<sup>A</sup>T<sub>E</sub>X style, and **do not reduce** any margins) – this limitation is strict, and you will often find such constraints when writing your scientific papers. Your Thesis proposal should contain a brief description of the state-of-the-art, especially on the topics you wish to study, and your work plan; preliminary results, if any, are also appreciated.

In order to schedule the pitch (which lasts 1 hour including questions), you will get an e-mail from *Enrico Carpentras* and you will have to synchronize with the commission members to avoid clashes with other presentations. Teleconferencing is also possible if you are abroad or some members are abroad. All the PhD students are **kindly requested** to participate to all these presentations.

By the end of the first year you're not expected to have achieved significant scientific results: what is important is that you **thoroughly** studied the state-of-the-art in the subject of your planned Thesis, and you identified some problems you wish to work on and some techniques you wish to improve and/or to employ in your study. You should show this “knowledge” and “awareness” as well as a rough plan of what you are going to do in the next 2 years during your pitch and in your Thesis proposal document. But if you already have some results, of course put them in!

If you would like to have more details, ask your senior colleagues (older PhD students and/or post-docs) hopefully working on similar topics, or check out past proposals (select year → thesis proposals): <https://www.di.unipi.it/en/page/190-thesis-proposals-and-reviews>

It is a good idea to show your proposal/slides to some senior colleagues prior to showing them to your supervisor, **well before** the deadline, so they can give you some precious **feedback**.

## 6.2 End of Second Year

You are required to do the presentation (no written report is needed) on the progress you had in your second year and make it clear to the Committee that you have enough material to submit your Thesis in the next year, hopefully supported by published papers in Conference Proceedings or Journals. If you don't, you should show to the Committee the work you have done so far, and why it was worth doing, and that in the next year you'll be able to achieve significant results to include in the Thesis and write it by the deadline. Include in the presentation also the parts that didn't work out but on which you worked hard. You typically have 30 minutes plus questions and advice from the Committee.

## 6.3 End of Third Year

You have to submit your **Doctoral Thesis**, that has been screened carefully by your supervisor, to your internal Committee of reviewers and to the **p.c.c.**. If they believe that it is not proper and misses some contributions, they can decide to give you some extra time: max two months, in which you have to make the required changes.

After it is approved, it is sent to an international committee (typically composed of two well-known scientists of the subject of your thesis who have never collaborated with you in the past), which will evaluate it and send you their feedback. This review takes less than 3 months. If your thesis is approved, you can expect the final defense to happen within 3 months after its approval. If the thesis does not get approved by the external reviewers, you are given up to 3 more months to manage the changes/improvements required by the reviewers (this is not something you should aim for). Then the (corrected-extended) thesis will be reviewed again by the international reviewers; at this point, their judgment will be final, meaning no further extension period will be granted!

## 7 Key people

Here follows a recap of the key contact people you may need to interact with for any issue regarding your PhD (info and offices' map on <https://www.di.unipi.it/en/people>):

- PhD Office of the University of Pisa for all information regarding your PhD enrollment, rules and duties:  
→ Ms. **Daniela Viccica** and Ms. **Licia Del Corso**: *dottorato.ricerca@admin.unipi.it*, site: <http://dottorato.unipi.it/index.php/en/>. [The office is located to the right side of Computer Science Department [previously known as Presidenza di Scienze.]
- Anything related to your research project:  
→ **your supervisor**
- Choice of courses and seminars, issues about your supervision, year advancements, PhD thesis submission and review:  
→ the **p.c.c.**, currently prof. **Paolo Ferragina**: *paolo.ferragina@unipi.it*
- Assignment of PhD rooms and departmental logistic issues:  
→ Prof. **Giancarlo Bigi**: *giancarlo.bigi@unipi.it*
- Registration of PhD exams and seminars, and information about abroad periods:  
→ Mr. **Enrico Carpentras**: *enrico@di.unipi.it*
- International relationships and PhD student support:  
→ Ms. **Veronica Tomatis**: *tomatis@di.unipi.it*
- Reimbursement of missions and abroad periods:  
→ Ms. **Ramona Serafini**: *serafini@di.unipi.it*
- Registration to conferences, direct payment of flight costs and/or hotels, purchase of instruments, and any stuff related to your office (e.g. department access card, office telephone, a broken chair/desk, etc.):  
→ Ms. **Giovanna Contaldo**: *giovanna@di.unipi.it*, **Letizia Petrellese**: *letizia@di.unipi.it*, **Simona Moi**: *moi@di.unipi.it*
- Issues regarding land mail or courier, and small materials for your office/word (pen, pencil, block notes,...):  
→ Ms. **Rita Cantini**: *rita@di.unipi.it*

## 8 General Advice

The PhD programme is meant to be a stimulating period of your life in which you get to know amazing people and spend significant time in developing your research project and investing in yourself. For your research to be successful, it is fundamental to keep an open, creative and humble mind, accept criticism, challenge yourself, learn from others, actively seek collaboration and expand your knowledge. Please do not be constrained to scientific research only, look at developing your skills to make value of this period and of the research you'll pursue by attending seminars and courses that are concerned with IP protection, business modeling and any other stuff that can make you an impactful researcher and innovator.

We hope you'll have fun while doing something that matters!

**Good Luck!**