Student Handbook XL cycle PhD Program in Civil, Chemical and Environmental Engineering

October 31st, 2024

Organization of the PhD program

The PhD program is run by the PhD committee, whose members are listed on the web page of the PhD program, and is supervised by the coordinator (PC), Prof. Roberta Massabò (roberta.massabo@unige.it).

The program is organized in the following four curricula, each of which has a curriculum coordinator (CC) and a curriculum committee.

- Curriculum in "Chemical, Materials and Process Engineering" (ICMP). Coordinator: Prof. Attilio Converti (converti@unige.it).
- Curriculum in "Fluid Dynamics and Environmental Engineering" (FIA). Coordinator: Prof. Bianca Federici (bianca.federici@unige.it).
- Curriculum in "Structural and Geotechnical Engineering, Mechanics and Materials" (SMG). Coordinator: Prof. Federica Tubino (federica.tubino@unige.it).
- Curriculum in "Wind Science and Engineering" (SIV). Coordinator: Prof. Giuseppe Piccardo (giuseppe.piccardo@unige.it).

The PhD program consists of courses and other learning activities, research training and the completion of a final research dissertation, for a total of 180 credits (1 credit corresponds to 25/30 hours of personal commitment). The program lasts three years and may include national and international mobility within universities, research institutions and companies. The official language of the program is English.

Further information on university regulations and ministerial decree concerning Italian PhD programs, are available on the website of the university of Genova: http://www.studenti.unige.it/postlaurea/dottorati/#normativa

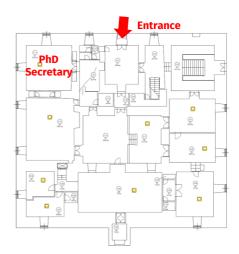
Further information on the PhD program is available at the web page: https://dicca.dottorato.unige.it/

The code of the Team of the PhD Program in Microsoft Teams is: 00v22mq

How to reach our Secretary

The PhD Secretary is located in Villa Cambiaso, Via Montallegro 1, Dott. Carola Montaldo, Tel: +39 010 335 2959. E-mail address: dottorato.dicca@unige.it.





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Starting the program: formalities

During the first month of the program the new students must:

- Register on the UNIGE Website: https://registrazioneunigepass.unige.it/signup?_language=en
- Register on LoginMiur: https://loginmiur.cineca.it/front.php/login.html
 The registration procedure is in Italian, Foreign students may refer to his/her supervisor for help.
- 3. Attend and pass the online course "Formazione generale sulla sicurezza e salute sul lavoro" "General training on health and safety at work" (art.37 del D.Lgs 81/08). The course is offered in Aulaweb in Italian and in English. https://unige.it/lavoro/studenti/tirocini/corso-sicurezza.
- 4. Make an appointment with the DICCA information technology department to obtain access to the DICCA intranet (Marco.Rinzivillo@unige.it).

Once completed the four steps the new students should inform their curriculum coordinator. The certificate of the Training on health and safety at work must be sent to the PhD secretary at dottorato.dicca@unige.it by the end of the first month of the Program.

Starting the program: choice of supervisor, preliminary research project and course plan

At the beginning of the PhD course (by three weeks of starting) the student will make an appointment with the CC, in order to discuss the choice of supervisor, which will be based on the scientific interests of the student.

The choice of supervisor is submitted to the PhD committee for approval, by the end of the first month of the program.

By the end of the first month the student also chooses his/her research topic and submits a brief description by e-mail to the CC. The PhD committee will examine the proposal and grant approval.

By the 15th of the second month of the Program the student submits to the CC a preliminary Plan of the PhD Courses he/she is planning to attend during the year. The student will submit similar plans also at the beginning of the second and third year.

By the 15th of the second month of the Program the student submits to the CC a preliminary research project (template in the Section Files of the PhD Team on Microsoft Teams).

Midterm meetings and admission to the following year

Each student will meet the curriculum committee at least twice a year, for an informal presentation of the activities (usually in the spring semester) and at the end of the year.

At the end of each year (during the 11th/12th months of the program), students are expected to:

- 1. write a report on the scientific activity of the year (template in the Section Files of the PhD Team on Microsoft Teams);
- 2. compile (or update) the "Personal Page" describing the completed activities (the template of the Personal Page, as well as an example, are sent by the Coordinator at the beginning of the PhD Course and can also be downloaded from Section Files of the PhD Team on Microsoft Teams;
- 3. Upload of yearly published material on the UniGe Repository of Research Publications (IRIS), https://iris.unige.it/.
- 4. Fill up the Student Booklet (Libretto) with the Learning and Research Activities of the year (credits will be inserted only after approval by the committee). The libretto is at https://servizionline.unige.it/web-sol/it/#/indice/studenti
- 5. Give a presentation to the curriculum committee concerning the research activities carried out during the year.
- 6. Complete the Student Booklet (Libretto) with the credits approved at the annual meeting.

The Personal Page must filled up fully, providing detailed information on: external stayings (dates, location); conference attendances and/or participation as speaker; publications (conference proceedings, journal papers, with DOI and/or Scopus IDs).

On the basis of the above points the curriculum committee will approve or deny admission to the following year or to the external evaluation and assign a mark (excellent, very good, good, fair, fail). The above documents must be sent to the CC by e-mail, before the deadline, which will be fixed each year (during the 11th/12th months of the program).

PhD Booklet (Libretto)

At the end of each year, once the student has been admitted to the following year and within 3 days since admission, he/she must complete the Libretto with all activities approved by the curriculum committee and the final report approved by the committee. The activities that provide credits (base credits or bonus credits) are listed in the following. The student will indicate the activities and credits approved by the committee. No other activities should be listed in the libretto.

10% Research funds

Each student of the PhD Program will be awarded some discretionary research funds, approximately 1500 Euros per year, for research related expenses. The funds may be used to cover expenses for: participation to conferences, summer schools, mobility to other research institutions in Italy and abroad; personal computers, laptops, consumables; language courses; publications and bibliographical material.

Each expenditure must be approved by the supervisor and the Program Coordinator. Expenditures will be approved during the three years of the Program (within 36 months since the starting date).

Detailed guidelines on the use of the 10% funds and all required forms can be found in the Section Files of the Team of the PhD Program on Microsoft TEAMs.

PhD dissertation and final examination

The final thesis is written in English.

At the end of the 3rd year, the students admitted to the external evaluation will be assigned two external referees, who will write a report on the thesis and support the admission to the final exam or suggest, if necessary, a delay of maximum 6 months for the final defence. The student must submit the thesis to the referees by the deadline, which will be fixed at the beginning of 3rd year. The deadlines for the external evaluation and final examination are in the Timetable for the Final Examination.

Upon request, to be made to the CC and to the PC during the course of the 3rd year, the student may apply for the Doctor Europaeus or International PhD Label (see documentation in the Section Files of the PhD Team in Microsoft Teams).

PhD Credits

During the PhD Program the students must earn a minimum number of credits.

Minimum number of annual and three-year credits:

- 60 annual credits
- 180 three-year credits

subdivided as specified below (for Executive students see list below):

- I year: 22 credits minimum in Learning Activities + 38 credits minimum in Research Work
- II year: 16 credits minimum in Learning Activities + 44 credits minimum in Research Work
- III year: 4 credits minimum in Learning Activities + 40 credits minimum in Research Work + 16 credits for the PhD thesis

For the Executive PhD students, the subdivision of the credits is the following:

- I year: 16 credits minimum in Learning Activities + 44 credits minimum in Research Work
- II year: 10 credits minimum in Learning Activities + 50 credits minimum in Research Work
- III year: 4 credits minimum in Learning Activities + 40 credits minimum in Research Work + 16 credits for the PhD thesis

Credits are accumulated through the following activities.

Learning activities:

PhD courses, other selected courses, attending research seminars, PhD training schools, presentations at international conferences (with requirements). Details on how to acquire these credits are given below.

Research Activity:

During the PhD program the student must earn 122-Credits credits performing PhD research under the guidance of the PhD supervisor: 38 by the end of the first year, 44 by the end of the second year and 40 by the end of the third year.

PhD Thesis and Final exam

Upon approval of the PhD thesis by the PhD Committee and the external evaluators and admission to the PhD exam, the student will earn 16 credits for the PhD thesis.

Learning Activities

During the first and second years students attend courses, selected with the aim of completing their education in the research area of interest. The list of courses is chosen by each student in agreement and with the approval of the supervisor. The list of courses the student wishes to attend will be submitted for approval to the CC within 1.5 months of the starting of the year (nov. 1st or March 1st).

All courses have mandatory attendance registration (remind the teacher in case he/she forgets).

During the PhD program students must earn 42 credits: 22 by the end of the first year, 16 by the end of the second year and 4 by the end of the third year. These are necessary for admittance to the following year (II and III) and to the external evaluation. If, for serious and proven causes, the student is unable to obtain the required credits and intends to continue the PhD program, he/she must inform the CC and the PC before the annual meeting. A written report must be submitted to the CC and PC, detailing reasons for his/her failure to obtain the credits and a proposal for obtaining the missing credits in a timely manner.

L1. PhD Courses

Information on the courses organized within the PhD program and related credits is available on the PhD program web-page at https://dicca.dottorato.unige.it/. The corresponding credits

will be assigned at the annual meeting if the student passes the final exam and sends the relative certificate to the CC.

Other PhD courses may be chosen freely, with the approval of the supervisor, by the student among those offered by other PhD programs at UniGe or at other institutions. In this case, the number of credits will be assigned by the curriculum committee at the annual meeting. The student must submit the program of the course, the detailed schedule of the course and a passing certification for the final examination.

Among the PhD Courses, the student may select PhD Courses on the Soft Skills listed below (maximum 9 credits):

- <u>Management of Research and Knowledge of European and International Research</u> Systems;
- <u>Valorization, communication/dissemination (or advanced linguistic in-depth knowledge) of research results, intellectual property and access to research data and products:</u>
- Ethics in Research;
- Technology Transfer and Entrepreneurship.

The student may also attend courses (maximum three courses or 18 credits) offered to Master degree students (*Laurea Magistrale*). These courses may be attended in order to improve the fundamental knowledge required to perform the PhD research program. They are typically offered in Italian. The credits obtained, after having passed the exam, are those assigned to master students (see the *Manifesto degli Studi*). In the student Booklet, these courses must be listed under "Other Training Courses".

For the students of the curriculum SMG the following two courses are mandatory:

- Continuum Mechanics (Prof. Angelo Morro);
- Numerical methods for the solution of partial differential equations (Prof. Patrizia Bagnerini); this course is offered every other year.

L2. Summer and training schools

A number of credits can also be assigned by the PhD committee for attendance of summer/winter and training schools for postgraduate education (up to a maximum of 6 credits corresponding roughly to a 2 week intensive summer school). In order to obtain credits for a summer school, it is necessary to send by e-mail the certificate of attendance to the CC and a detailed program of the activities.

L3. Research Seminars

Research seminars are organized by the PhD program and the DICCA Department. The seminars are held by experts in the field. The attendance to three seminars, either organized by the PhD program or by other PhD programs at UNIGE or at other Italian and foreign universities (only seminars for PhD students and if approved by the supervisor), followed by brief written reports (to be sent to the CC), will allow to obtain 1 credit. Research seminars

offered by other institutions may be used to accumulate credits upon approval of the CC. Credits may be earned through seminars up to a maximum of 6 credits.

For all students, participating to the seminars offered by the PhD program or by the DICCA department is mandatory.

L4. Presentations at congresses

Credits can also be earned <u>with oral presentations at international and national conferences</u> (with a maximum of 8 credits).

Requirements:

- 4 credits maximum for each oral presentation at international conferences, first author;
- 2 credits maximum for each oral presentation at Italian conferences or poster at international conferences, first author;
- 1 credit maximum for each oral presentation at national or international conferences if not first author

Bonus Credits

In addition to the 180 credits, students may earn bonus credits as PhD courses, Mobility for Research, Journal publications, Awards, Doctor Europaeus and International PhD, Outreach and Third Mission activities (with requirements).

Details on how to acquire these credits are given below.

B1. International and National Mobility

Students may earn bonus credits through international and national mobility.

Mobility for research periods in Italy – 5 Bonus Credits maximum (with requirements)

Mobility for research periods abroad – 10 (+ 10) Bonus Credits maximum (with requirements)

Requirements:

- 5 bonus credits maximum for more than 3 month mobility in Italy,
- 1 bonus credits maximum for less than 3 month mobility in Italy;
- 10 bonus credits maximum for more than 3 month mobility abroad;
- 2 bonus credits maximum for less than 3 month mobility abroad;
- 10 bonus credits additional for Doctor Europeaus or International PhD

B2. Journal Publications and Awards

A maximum of 25 bonus credits may be earned through the publication of Journal papers and awards.

Publications – 5 bonus credits maximum for each Journal Publication (with requirements)

Requirements: publications on ISI journals, first author (credits assigned by the curriculum committee based on each specific publication). Publications must be on IRIS.

Awards - 5 bonus credits maximum

B3. Teaching Activities

A maximum of 11 bonus credits may be earned through teaching activities.

Tutoring/teaching assistantship (with requirements):

- 3 bonus credits maximum for each activity of more than 20h;
- 2 bonus credits maximum for each activity of less than 20h;
- Bachelor and MS thesis co-supervision: 1 bonus credit maximum for each bachelor thesis; 2 bonus credits maximum for each MS thesis

Requirements: all activities must be formalized.

B4. Other Activities

A maximum of 4 bonus credits may be earned through other Outreach and third mission activities (with requirements).

Requirements: all activities must be formalized.

Timetable and deadlines for all students

Activity	Who	By/Within:	With/To whom
Make an appointment with CC (choice of supervisor)	l year students	Within three weeks of starting	CC
Submit brief description of Research project (topic)	l year students	By the end of 1 st month	CC
Register on the UNIGE Website	l year students	By the end of 1 st month	-
Register on LoginMiur	l year students	By the end of 1 st month	-
Attend and pass course on safety and health in the workplace. Send certificate	I year students	By the end of 1 st month	PhD secretary

Make appointment with	l year	By the end of 1st month	Marco
the Information	students	by the end of 1 month	Rinzivillo
Technology Department	Students		KIIIZIVILLO
	Lycon	Within 1 F months of starting	CC
Submit a Preliminary	l year	Within 1.5 months of starting	CC
Research Project (use	students		
template)		ludid d . 6 . d	
Submit the planned list of	All	Within 1.5 months of starting	CC
PhD courses for the year	students		
Meet with CC and	All	Mid-year	CC and
committee for informal	students		curriculum
presentation of activities			committee
Submit Yearly Report &	I and II	By the end of 11 th (I year) and 23 th	CC
Personal Page (templates)	year	months (II year)	
	students		
Presentation of yearly	I and II	At meeting during 12 th (I year)	CC
research activity	year	and 24 th (II year) months	
research delivity	students	and 21 (in year) months	
Upload publication data	All	By the end of 11 th (I year), 23 th (II	_
on IRIS	students	year) and 35 th (III year) months	
Fill up the student Booklet	I and II	By the end of 11 th (I year) and 23 th	
(Libretto) – partial	year	months (II year)	
	students		
Complete the Student	I and II	Within 3 days since approval of	-
Booklet (Libretto)	year	yearly credits by the committee	
	students		
Fill up UniGe	All	Once per year, when requested	-
Questionnaire on	students	by UniGe	
Satisfaction			
Enrollment to the	II and III	1 day before starting of following	UniGe
following year (and taxes)	year	year: Oct. 31st (start Nov. 1), Feb	
	students	28 th (start March 1)	
Submit final Report and	III year	15 days before date of resolution	CC
Personal Page (templates)	students	on admission to external reviews	
l company		(see Timetable for Final Exam)	
Final presentation of	III year	15 days before date of resolution	CC
research activity	students	on admission to external reviews	CC
research activity	Students	(see Timetable for Final Exam)	
Fill up the student Booklet	III year	By the end of the 35th month (or	_
(Libretto) – partial	students	during the year)	-
Complete the Student	III year	Within 3 days since approval of	-
Booklet (Libretto)	students	yearly credits	
Submission of Thesis to	III year	See Timetable for the Final	reviewers
external reviewers	students	Examination	
Review of the thesis	III year	See Timetable for the Final	CC and
	students	Examination	reviewers
Submission of PhD thesis	III year	See Timetable for the Final	Final exam
to examination committee	students	Examination	committee

Enrollment to Final exam and upload of Thesis	III year students	See timetable defined by UniGe (typically 15 days before final examination)	-
Final exam	III year	See Timetable for the Final	-
	students	Examination	

Timetable for the final examination

Timetable of activities related to the Final Exam

In red: who is	I session (special)	II session		III session	IV session (special)
responsible	For students with starting	(each curriculum will select just one session)		(reserved to students with	for students with
CC: curriculum	date on November 1st.	For students with starting date on November 1st.		starting dates in March)	extension requested by the
coordinator					external reviewers
Final Exam(student)	February 1-28	April 1-30	May 1-31 *	July 1-31 *	October 15 – Nov. 15
Submittion PhD	Within 1 month from the	Within 1 month from the	Within 1 month from the	Within 1 month from the	Within 1 month from the
thesis to committee	final exam (date to be	final exam (date to be	final exam (date to be	final exam (date to be	final exam (date to be
(student)	defined, between December	defined, between March 1	defined, between April 1	defined, between June 1	defined, between Sept. 15
	28 and January 28) ^^	and 30) ^^	and 30) ^^	and 30) ^^	and Oct.15) ^^
Curriculum					
resolution on the	5 weeks before the date of	5 weeks before the date of	5 weeks before the date of	5 weeks before the date of	5 weeks before the date of
admissions to final	the final exam (date to be	the final exam (date to be	the final exam (date to be	the final exam (date to be	the final exam (date to be
exam, appointment	defined, between December	defined, between February	defined, between March	defined, between May 23	defined, between
of the commitee,	23 and January 21)	23 and March 23)	23 and April 23)	and June 23)	September 7 and October
exam dates (CC)					7)
Review of the thesis	10 days after reception of	10 days after reception of	10 days after reception of	10 days after reception of	10 days after reception of
(minor) (student)	judgemnts	judgemnts	judgemnts	judgemnts	judgemnts
Reception of the	Within December 7	Within February 7	Within March 7 (ultimate	Within May 7 (ultimate	Within September 5
judgments	(ultimate admissible date:	(ultimate admissible date:	admissible date: March15)	admissible date: May15)	(ultimate admissible date:
(reviewers) (CC)	December 15)	February 15)			September 10)
Submission of the	Within November 7^^	Within December 31^^	Within January 31* ^^	Within March 31* ^^	Within July 15 * ^^
PhD thesis to the				(or date fixed by UniGe)	(or date fixed by UniGe)
external reviewers					
(student)					
Curriculum	Within October 31	Within December 23*	Within December 23*	Within February 23*	Within June 15*
resolution (CC) on				(o data fissata da UniGe)	(o data fissata da UniGe
the admissions to					
the external reviews					

^{*:} UniGe deadlines ^^: if the reviewers request printed copies, deadlines will be anticipated of at least 7 days