

DOCTORAL CREDITS (DCs) FOR TRAINING AND RESEARCH ACTIVITIES

Doctoral Credits (DCs) measure the required **workload** of the PhD student in **Research and Training to research activities** for the attainment of the PhD degree.

Regarding training to research, the DC is equivalent to the European Credit Transfer System (ECTS) credit. The PhD student must acquire **60 DCs per year**, corresponding to **1,500 hours of activity**; **each DC is equivalent to 25 hours of the PhD student's commitment (including both lectures and independent study)**. For the PhD program in Veterinary Sciences, the total of 180 CDs is divided between **70% in research activities and 30% in training and teaching activities (Table A)**.

The PhD credits obtained over the 3 years will be reported in the **Diploma Supplement**.

Table A – Distribution of DCs between research, training and teaching activities		
Type of activity	Total amount of DCs	%
Research activities	126	70
Training and teaching activities	54	30
Total	180	100

REQUIREMENTS FOR THE DISTRIBUTION OF DCs AMONG TRAINING AND TEACHING ACTIVITIES

The PhD program establishes the **minimum DCs value** to be achieved for each of the following activities:

a) Curricular training

- **Disciplinary and multi-disciplinary training** - this involves training on specific topics related to the research project, including cutting-edge scientific and technological aspects, but also more general topics (multidisciplinary, transdisciplinary, and interdisciplinary), aimed at filling training gaps of common interest for the scientific domains included in the PhD program and/or its curricula. *For PhD students in the clinical area and those who perform in-service activities, supervised clinical/laboratory activities and attendance at training meetings such as Journal Club/Book reading/discussion of clinical cases have been included in the disciplinary training.*
- **Training related to soft skills** - such as the enhancement of research (e.g., topics related to technology transfer, entrepreneurship, innovation management, etc.); methods, techniques, and tools for research management (e.g., bibliographic sources, data management, editorial policies and practices, open science, etc.); dissemination and communication of research activities (e.g., methods for writing scientific articles and presentations, written/oral/visual communication techniques, advanced language skills, etc.); the impact of scientific research on society and sustainable development; knowledge of European and international research systems, with the corresponding mechanisms for accessing competitive funding; career guidance and planning; training in teaching; core principles of ethics, gender equality, and integrity; etc.

Curricular training can be organized by the PhD program in Veterinary Sciences or by the University of Bologna. Curricular training activities can be borrowed from similar activities already available in the University's portfolio of Bachelor's and Master's degree programs. Nevertheless, there are curricular activities specifically designed for the PhD program that are different from first and second level teaching (Ministerial Decree 301 of March 22, 2022, containing the Guidelines for the accreditation of PhD programs, requires an average of at least 20 hours per year per cycle), also for the use of specific PhD methodologies, such as seminar cycles, scientific events, exchange/presentation events for research results, etc.

b) Extra-curricular training

It ensures and stimulates the growth of PhD students as members of a scientific community, for example through participation in national and international training schools (summer schools, winter schools, etc.), or training opportunities for exchange/presentation of research results (PhD symposia with presentation of annual/final reports), etc. It includes participation in conferences without oral/poster presentations.

c) Dissemination

It refers to the participation of PhD students in conferences, workshops, etc. as **speakers or poster presenters**.

d) Tutoring and Supplementary Teaching activity

The PhD program allows and encourages PhD students to participate in teaching and tutoring activities, provided they are consistent and compatible with their research activities.

Please note that the maximum number of hours for Supplementary Teaching is 40 per year and for Tutoring (with contract) is 60 per year.

Supplementary Teaching includes support from the professor during lectures/rotations/wet lab, etc.

For PhD students in the clinical field and those who perform service activities, supplementary teaching also includes the supervision of trainees during clinical care and service activities and participation as speakers in training meetings such as Journal Club/Book reading/discussion of clinical cases.

The PhD Program establishes a **minimum amount of DCs** to be acquired over the 3 years for each type of activity, below which the PhD student is excluded from the PhD Program.

Table B – Requirements for the distribution of DCs among training and teaching activities		
Type of activity	Minimum amount of DCs	Maximum amount of DCs (optional)
Disciplinary and multidisciplinary training	10	-
Training related to soft skills	4	-
Extra-curricular training	2	-
Dissemination	2	-
Tutoring and Supplementary Teaching	0	-

The PhD Program establishes the **recommended number** of DCs to be acquired for training and teaching in each year of the PhD program, in order to ensure a balanced distribution of these activities with respect to research ones. **PhD students who fall short of the expected annual DCs requirement will carry over their debt to the following year.**

Table C – DCs for training and teaching to be acquired during the various years of the PhD program		
DCs for training and teaching to be acquired	Recommended	Minimum (optional)
At the end of 1st year	18	-
At the end of 2nd year	36	-
At the end of 3rd year	54	-

MATCHING BETWEEN COMMITMENT HOURS AND ACQUIRED DCs

The number of DCs to be assigned to curricular training activities is calculated by adding the estimated independent study time to the number of lecture hours.

The PhD Program establishes its own **general criteria** for determining the number of DCs to be assigned for extracurricular training and dissemination activities.

For supplementary teaching and tutoring activities, reference is made to the number of hours specified in the corresponding contract/register, multiplied by a factor that takes into consideration the preparation required.

In any case, it is always possible that individual activities may have their own specific distribution of the PhD student's commitment between lecture hours and independent study hours. It follows that if the activity (carried out at the University of Bologna or elsewhere) provides for the formal awarding of a certain number of ECTS credits, 1 ECTS credit is equivalent to the acquisition of 1 DC.

If the activity is limited to simply attending an event (e.g., a seminar), without any specific additional independent study commitment, 25 hours of activity correspond to 1 DC.

Table D – Matching between commitment hours and acquired DCs					
Type of activity	Lecture hours	Independent study time	Total hours	DCs	
Disciplinary and multidisciplinary training					
courses with eligibility#	8	17	25	1	
wet lab	12.5	12.5	25	1	
seminars with independent work	15	10	25	1	
seminars with mere attendance	25	0	25	1	
supervised clinical/laboratory work*	20	5	25	1	
JC and discussion of clinical cases*	20	5	25	1	
Training related to soft skills					
courses with eligibility	8	17	25	1	
wet lab	12.5	12.5	25	1	
seminars with independent work	15	10	25	1	
seminars with mere attendance	25	0	25	1	
Extra-curricular training					
attendee at conferences, summer school, other		1 giorno = 10h (v. giorni missione)		0.4	
DIMEVET/UNIBO PhD student reports		15	10	25	1
Dissemination (conference speaker)		1 giorno = 10h (v. giorni missione)		0.6	
Tutoring and supplementary teaching					
max 40 hours/year	thesis co-supervisor	1 thesis = 25h		1	
	other supplementary teaching	8	17	25	1
	JC and discussion of clinical cases - speaker*	8	17	25	1
	clinical/laboratory work as supervisor*	25	0	25	1
max 60 hours/year	OVU tutoring (contract)	25	0	25	1
	other tutoring (contract)	8	17	25	1

OVU = University Veterinary Hospital of DIMEVET

[#] the program in Vet Sciences provides a total of 9 DCs over 3 years, **5 of which are mandatory**

* for PhD students in the clinical field and those who perform service activities

GENERAL COMMENTS

PhD students, in agreement with their supervisors and co-supervisors, will flexibly define their specific training and research paths, choosing the activities to be carried out (by type and quantity), in compliance with the minimum and maximum requirements established by the Board for each activity and year of the course.

PhD students can acquire DCs for activities carried out both at the University of Bologna and elsewhere.

Periods spent at institutions other than Unibo (6 months in 3 years) will determine the number of DCs acquired based on the type of activity carried out by PhD students at those institutions (research, disciplinary training, cross-disciplinary training, etc.).

The acquisition of DCs is verified at the end of each year. PhD students who, at the end of their PhD program, have acquired a number of DCs for training exceeding that indicated in Table A, will have these DCs recognized in excess of the theoretical 180. However, the Board is required to monitor that no imbalances occur that hinder the research activities of PhD students.

The Board may require individual doctoral students to acquire additional credits if this is necessary to complete their training in fields essential to their research projects.

The assignment of **CDs for research activities** is based on an examination of the research activity carried out and the results achieved (in particular, the research products included in the University Publications Catalog—minimum 3), taking into account the opinion of the supervisor and co-supervisors. CDs for research activities (specified in Table A) are formally assigned upon admission to the final exam.

REPORTING PROCEDURES

In the application immediately after completion or, for activities carried out throughout the academic year, when submitting the annual/final report.

The PhD Program in Veterinary Science provides an Excel file that the PhD student can use together with their supervisor to plan activities.

EXAMPLE of annual DCs acquisition for training and teaching activities:

VETERINARY SCIENCE			
Type	DCs	Clinic Area	Others
Disciplinary and multidisciplinary training			
disciplinary and multidisciplinary courses	8h = 1DC	2	4
[specialist school]	1 CFU = 1 DC	-	[60]
supervised clinical/laboratory work	3h/week for 48 weeks = 144:20	7,2	-
JC and discussion of clinical cases	1h/week for 48 weeks = 48:20	2,4	-
	tot	11.6	4 [+60]
Training related to soft skills		2	2
	tot	2	2
Extra-curricular training			
attendee at conferences/summer school	3 gg x0.4	1,2	1,2
PhD students meetings	15h	1	1
	tot	2.2	2.2
Dissemination (conference speaker)	2 gg x0.6	1.2	1.2
	tot	1.2	1.2
Supplementary teaching (max 40h/year) and tutoring (max 60h/year)			
thesis correlation	1 thesis	-	1
clinical/laboratory activity as supervisor	30h :25	1.2	-
JC and discussion of clinical cases - speaker	10h :8	1.25	-
other supplementary teaching	-	-	-
tutoring (contract)	60h/year :8	-	7,5
	tot	2.45	8.5
TOTAL TRAINING DCs/YEAR		19.45	17.9 [+60]
Recommended DCs/year: 18 (450h)			