

Regulations for educational training, research and teaching activities (from 40th PhD cycle)

The educational training, research and teaching activities of the PhD students are quantified by means of Doctoral Credits (CD).

→ Each CD is equivalent to a workload of 25 hours (**1 CD = 25 hours**). As far as training and teaching are concerned, the CD is equivalent to the European Credit Transfer System (ECTS) credit.

The PhD student must achieve 60 CDs per year for a total of 180 CDs. The CDs are split between:

- **Research** activity accounts for 80% of the total number of CD (Table A). The assignment of CDs for research activities is based on the examination of the research activity carried out and the results achieved, i.e. products in IRIS (cris.unibo.it). The CDs for research activities are formally assigned upon admission to the final exam.
- **Training and teaching** activities accounts for 20% of the total number of CD (Table A). The correspondence between hours of work and CDs acquired for each training and teaching activity is reported in Table D. The requirements for the distribution of CDs among the different types of training activities are reported in Table B.

The acquisition of CDs is verified at the time of the passage of each year:

- An annual report, reviewed by the supervisor, is expected. The report will be requested approximately from the beginning of September of each year, with a deadline of September 30th.

For PhD students in **APP, MAT, NSN, TEO** the timeline is reported in Table C2, with more details here:

- By the end of 1st year: 12 CD compulsory from courses offered by the PhD in Physics of the University of Bologna with at least 2 CD from courses of a different curriculum
- By the end of 2nd year: 1 CD of the “Scientific dissemination, management and funding for Physicists” course + 2 CD from activities listed in Table D
- By the end of 3rd year: 8 CD from courses offered by the PhD in Physics of the University of Bologna, PhD Schools, advanced Master courses of the University of Bologna or PhD courses of different PhD programmes (if they feature a final examination) + 13 CD from activities listed in Table D.

For PhD students in **DID** the timeline is reported in Table C1, with more details here:

- By the end of 1st year: recommended 6 CD from courses offered by the PhD in Physics of the University of Bologna with at least 2 CD from courses of a different curriculum
- By the end of 2nd year: 1 CD of the “Scientific dissemination, management and funding for Physicists” course + 3 CD from activities listed in Table D. By the end of 2nd year it’s compulsory to complete the 6 CD recommended for the 1st year and 1CD of the “Scientific dissemination, management and funding for Physicists” course.
- By the end of 3rd year: 14 CD from courses offered by the PhD in Physics of the University of Bologna, PhD Schools, advanced Master courses of the University of Bologna or PhD courses of different PhD programmes, if they feature a final examination + 12 CD from activities listed in Table D.

Clarification on CD assigned to courses (= disciplinary and multidisciplinary frontal teaching):

- a) For courses that do not have formal CFU assignments, for instance courses offered by the PhD in Physics or other PhDs etc., the amount of work is quantified according to Table D.
- b) For courses that are already formally quantified in a certain number of CFU (or ECTS), for instance courses from relevant Master's programs, **1 CFU (or ECTS) credit is equivalent to the acquisition of 1 CD (1 CFU = 1 ECTS = 1 CD).**
- c) For courses in b) the supervisor can request a different number of CDs than the CFUs formally assigned to the course:
 - More CDs than CFUs can be requested if it's motivated (for instance attending a course from a different Master program might require more effort).
 - Less CDs than CFUs can be requested if the PhD student is planning to attend only a subset of the topics covered by the course, in agreement with the teacher of the course.
 However, this requires approval from the PhD Steering Committee.

Guidelines for the assignment of Doctoral Credits (CD) for training and research activities – PhD Physics

Table A – Distribution of CDs between research, training and teaching		
Type of activity	Total Number of CD	%
Research activities	144	80
Training and teaching activities	36	20
Total	180	100

Table B – Requirements for the distribution of CDs among training activities	
Type of activity	Minimum Number of CD
Disciplinary and multidisciplinary training (courses, seminars)	10
Transversal skills	1
Extra-curricular training (schools etc)	2
Dissemination (presentation/poster at conferences/workshop)	2
Teaching and tutoring	0

- Table C , named C1, for the research line in Physics Education and History of Physics

Table C1 – CD for training activities to be acquired in the various years of the course		
CD for training and teaching activities	Recommended	Minimum
By the end of 1 st year	6	--
By the end of 2 nd year	10	--
By the end of 3 rd year	36	--

- Table C , named C2, for all the other research lines (APP,MAT,NSN,TEO)

Table C2 – CD for training activities to be acquired in the various years of the course		
CD for training and teaching activities	Recommended	Minimum
By the end of 1 st year	12	--
By the end of 2 nd year	15	--
By the end of 3 rd year	36	--

Table D – Correspondence between hours of work and CDs acquired				
Type of activity	hours in the classroom	hours of independent study	Total hours	CD
Courses(*) (disciplinary and multidisciplinary <u>frontal</u> teaching)	6	19	25	1
Transversal courses	12	13	25	1
Laboratory courses	12	13	25	1
Seminars with independent study	10	15	25	1
Attendance-only seminars	25	0	25	1
Teaching and tutoring	6	19	25	1
Extra-curricular training (schools, PhD symposia etc)	1 day			0,5
Dissemination (presentation/poster at conferences, workshops etc)	1 day			0,5

(*) For courses that are already formally quantified in a certain number of CFU (or ECTS), **1 CFU (or ECTS) credit is equivalent to the acquisition of 1 CD (1 CFU = 1 ECTS = 1 CD)**. However, for motivated cases the supervisor can request more (or fewer) CFU than those formally assigned to the course, upon the approval from the PhD Steering Committee.