

Guidelines for the Definition of the Training Plan and the Contents of the Manifesto

Generality

The Training Plan is the document that describes the training methods for the doctoral students of the Doctorate Course in Science and Engineering for the Environment and Sustainability of the University of Campania "Luigi Vanvitelli".

The Manifesto indicates, year by year, the collegial and individual teaching activities implemented for the realization of the training process.

The Training Plan and the Manifesto are approved by the Board of Professors. The Board of Professors is also responsible for the educational process of each doctoral student; in the implementation of these skills the Board of Professors makes use of the help of a Supervisor and a Co-supervisor for each doctoral student and of any preliminary discussions.

The acquisition of the qualification is based on the European Credit Transfer and Accumulation System (ECTS). Credits are acquired by completing the activities included in the training plan. The credits that can be acquired are determined for each activity on the basis of the overall commitment required to the doctoral student in terms of study and learning. Admission to the final exam requires having acquired 180 ECTS.

Articulation of the Training Process

The training process is divided into:

- Educational activities
- Scientific activities
- Subsidiary activities

Educational activities

The teaching activities are divided into:

- Alignment teaching: of specific interest to doctoral students in the first year of the PhD course. It aims to standardize the skills and knowledge of incoming doctoral students, so that they can profitably follow the Doctorate training path. Alignment teaching is prescribed if necessary and, in any case, personalized for each doctoral student, taking into account the training curriculum completed before accessing the PhD Course.
- Collegiate basic teaching: intended for all doctoral students of the PhD Course or homogeneous groups. The objective is to provide the fundamental technical-scientific skills necessary for successful attendance of the course and acquisition of the qualification. Basic teaching is usually imparted through higher education courses, held by highly qualified internal or external teachers.
- Advanced collegiate teaching: typically intended for specific groups of doctoral students on the PhD Course. It is normally taught through higher education courses, on topics of specific interest for the students' training and research activity, taught by highly qualified internal or external teachers.
- Personalized advanced teaching: intended for individual doctoral students based on their specific training needs.

The teaching activity can be carried out through:

- individual study
- participation in courses/seminars or in general in on-site or off-site educational activities

Staying abroad in a highly qualified University or Research Institution is strongly recommended, preferably for a period of at least one semester, so that the doctoral student can have time to benefit from relationships with foreign Professors and colleagues.

The Board of Professors, on the basis of the educational objectives of the PhD Course, preliminarily defines:

- the teaching activities to be organized on site for the implementation of the Manifesto, specifying their contents, structure, timing, responsible person(s), doctoral students for whom they are intended and the corresponding ECTS;

- the other teaching activities of the PhD Course, possibly external (national schools, activities borrowed from other courses, seminars, etc.) to be included in the Manifesto.
- For each activity, the Board of Professors establishes the doctoral students for whom it is intended and the corresponding ECTS.

Furthermore, the Board of Professors, with reference to individual doctoral students, and having consulted the Supervisors,

- defines any alignment teaching for each incoming doctoral student, based on the analysis of personal curricula
- defines the teaching activity of individual doctoral students, within the scope of the training project and on the basis of the proposal of the doctoral students themselves, establishing the relevant ECTS.

The recognition of the ECTS of an activity requires:

- the certificate of participation issued by the teacher or the institution that organized the activity
- certification of a positive profit evaluation. The evaluation is based on appropriate assessment criteria defined by the Board of Professors on the basis of the specific teaching needs of the PhD Course. It is part of the general evaluation process envisaged for all activities of the PhD Course.

Scientific Activities

Scientific activities are divided into

- experimental or numerical activity aimed at scientific objectives
- preparation and acceptance of scientific works to be presented at national or international conferences, or to be published in national or international journals
- participation in conferences, congresses, and scientific seminars
- processing and production of documents (papers, procedures, etc.) of scientific importance
- participation in the work of national or international research groups
- participation in technology transfer activities
- contribution to the organization of scientific events
- any other items, to be defined by the Board of Professors

The Board of Professors, on the basis of the educational objectives of the PhD Course, year by year, preliminarily defines:

- the scientific activity of the year for each doctoral student (or homogeneous groups of doctoral students), as part of his training project and on the basis of the Supervisor's proposal.

The recognition of ECTS for an activity requires, if foreseen by the organizers, the certificate of participation issued by the person who organized the activity.

Subsidiary activities

Other activities include:

- subsidiary or supplementary teaching activities within the limits of what is specified by the PhD Regulation
- the proactive and organizational activity of scientific projects
- the organization of conferences and scientific meetings or advanced training events
- any other useful activity, in the opinion of the Board of Professors, for the training of doctoral students

The Board of Professors, on the basis of the educational objectives of the doctorate, year by year, preliminarily defines:

- the subsidiary activity of the year for each doctoral student (or homogeneous groups of doctoral students), as part of his training project and on the basis of the Supervisor's proposal.

The Board of Professors, at the end of each year, for each of the doctoral students:

- recognizes the ECTS acquired for the activity carried out during the year on the basis of a descriptive report of the activity carried out, a public presentation and the opinion of the Supervisor
- authorizes admission to the final exam or passage to the following year, if the conditions are met, possibly defining the activities to be carried out to recover unearned ECTS.

Distribution of Activities in the Training Process

As a rule, the activities of each doctoral student's training process respond to the distribution shown in the following table. Specific needs may suggest different articulations for individual doctoral students, for example students enrolled in executive PhD Courses, or winners of scholarships financed by an Institution or Company may agree with the latter on a personalized training plan, in line with their own scientific interests, consistently with the educational objectives of the PhD Course.

	First Year	Second Year	Third Year	Total
Educational activities	20-40	6-12	0-8	26-60
Scientific activities	20-40	40-50	35-60	95-150
Subsidiary activities	0-15	0-15	0-15	0-45
Total	60	60	60	180

Training Process Evaluation System

The evaluation system of the training process, framed in the more general evaluation system of the PhD Course, includes the following specific activities:

- evaluation of the PhD Course by the doctoral students (organization, structure, training program, structures, assistance, tutoring, availability of funds, etc.)
- evaluation of the PhD Course by the Professors (organization, pre-requisites, structures, etc.)
- evaluation of research products (articles, conference presentations, patents, technical reports, etc.) produced by doctoral students
- evaluation of collaborations with Companies and Institutions linked to the doctoral students' activities

The organization and management of the Evaluation System are the responsibility of the Board of Professors which, among other things, defines its practical implementation (operational tools, times, responsibilities, etc.).