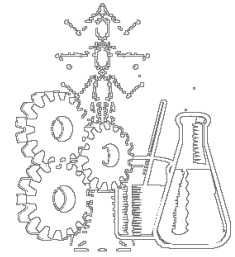


# REGULATIONS

## PhD program in Industrial Engineering

### University of Cagliari



**THE OFFICIAL VERSION OF THE REGULATIONS IS THE ITALIAN VERSION ONLY**

#### **Art. 1 – Establishment of the PhD program**

The PhD course in Industrial Engineering (PhD program) is established by decree of the Rector, upon approval by the Academic Senate, and subject to fulfilment of the eligibility requirements defined by the University Evaluation Board (Nucleo di Valutazione), as indicated in the MIUR Decree DM n. 45 of 8 February 2013, and in the Decree of the Rector DR. 946 of 5 July 2013 and subsequent modifications.

The PhD course is established within the University of Cagliari, on the proposal of the following Departments:

- Dipartimento di Ingegneria Elettrica ed Elettronica (DIEE);
- Dipartimento di Ingegneria Meccanica, Chimica e dei Materiali (DIMCM).

The above mentioned Departments provide teaching, research and administrative staff, facilities, services and funding adequate to the needs of the Phd program.

The PhD Program adopts the General Regulations for the PhD program of the University of Cagliari, issued by decree of the Rector D.R. n. 1068 del 29/07/2013, and successive updates, and supplemented by the following articles.

#### **Art. 2 – Discipline areas and Scientific-Disciplinary Sectors (SSD)**

The concerned scientific areas and, in particular, the ERC disciplines and the Scientific-Disciplinary Sectors (SSD) are listed in Annex 1 and 2, respectively.

#### **Art. 3 – Objectives of the PhD program**

The main objective of the PhD Program is to prepare researchers with high scientific qualification in the field of Industrial Engineering, as well as in interdisciplinary areas that require similar competencies, in order to be able to carry out high-profile technical activities in the industry sector, or within public institutions.

The PhD Program promotes, organizes and coordinates all teaching and scientific activities required for the training of the PhD students.

#### **Art. 4 – PhD Program and credits**

In order to be admitted to the thesis defence, students enrolled in the PhD Program are required to earn 180 Research Credits (RC), in accordance to the following scheme:

- a) 24 RCs earned through courses offered by the PhD Program in Industrial Engineering, as defined in Article 5;
- b) 45 RCs earned through the annual presentations to the PhD Board (15 RC per year);
- c) 30 RCs earned through the final discussion of the thesis;
- d) The remaining RCs may be earned through the activities listed in Annex 3, following the plan presented by the tutor and approved by the PhD Board.

The PhD student and the tutor prepare and submit to the PhD Board a preliminary program of the different activities that will be performed to complete the PhD Program (180 RCs). The proposed program is examined by the PhD Board, which can approve the proposal or require modifications.

In order to perform the credits recognition, the tutor must submit a formal request on behalf of the PhD student; the request should report all data needed for the evaluation of credits and include the appropriate documents, as indicated in Annex 3.

The credits recognition can be performed upon request of the PhD student or before the Final Examination.

#### **Art. 5 – Training program**

The PhD Board approves every year the PhD courses program, that is defined to better qualify the PhD students by offering a complete training program, in consideration of the different students curricula. The program is approved by the PhD Board at the beginning of each PhD cycle.

The training activities consist of third-level courses organized by the PhD Program and other courses offered by the University and approved by the PhD Board, in compliance with the training activities defined in Article 4(1)/f of MIUR Decree MD 45/2013.

The third-level courses organized by the PhD Program are typically 20 hours long and contribute four credits (4 RCs).

The PhD Board will indicate a list of compulsory courses, while the PhD student, in consultation with the tutor, will indicate the elective courses in accordance with Article 4(1). The training activities should be preferably completed within the first 18 months of the PhD course.

The lecturers certify the attendance to the course and, following an evaluation test, the achievement of the training objectives by the PhD student. The PhD student must attend at least 80% of the course in order to receive the relevant credits.

The PhD Board may, for justified reasons, waive the above requirements and, in consultation with the lecturer of the course, define the procedures to recover the specific knowledge content associated to not earned credits.

At the end of any third-level course, the PhD students will fill in a form for course and teaching evaluation, following a scheme approved by the PhD Board.

#### **Art. 6 – Amendments to the regulations**

Amendments to the present regulations, except the modifications enforced by law, are proposed by the PhD Board and approved by the competent academic authorities of the University of Cagliari.

**Art. 7 – Website**

All the information related to the activities of the PhD Program will be posted on the PhD Program web site. The temporary address of the website is <http://phdschools.diee.unica.it/dottingind/index.php>

## Annex 1

### ERC Sectors (European Research Council)

#### MAIN ERC SECTORS

- PE7 Systems and communication engineering: electronic, communication, optical and systems engineering
- PE8 Products and process engineering

#### SECONDARY ERC SECTORS

- PE2 Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics
- PE6 Computer science and informatics: informatics and information systems, computer science, scientific computing, intelligent systems

#### ERC SUBSECTORS

- PE7\_1 Control engineering
- PE7\_2 Electrical and electronic engineering: semiconductors, components, systems
- PE7\_4 Simulation engineering and modelling
- PE6\_6 Informatics and information systems
- PE8\_2 Chemical engineering, technical chemistry
- PE8\_6 Energy systems (production, distribution, application)
- PE8\_8 Mechanical and manufacturing engineering (shaping, mounting, joining, separation)
- PE2\_3 Nuclear physics
- LS7\_1 Medical engineering and technology

**Annex 2**  
**Scientific-Disciplinary Sectors (SSD)**

ING-IND/08 - MACCHINE A FLUIDO

ING-IND/09 - SISTEMI PER L'ENERGIA E L'AMBIENTE

ING-IND/13 - MECCANICA APPLICATA ALLE MACCHINE

ING-IND/14 - PROGETTAZIONE MECCANICA E COSTRUZIONE DI MACCHINE

ING-IND/15 - DISEGNO E METODI DELL'INGEGNERIA INDUSTRIALE

ING-IND/16 - TECNOLOGIE E SISTEMI DI LAVORAZIONE

ING-IND/17 - IMPIANTI INDUSTRIALI MECCANICI

ING-IND/25 - IMPIANTI CHIMICI

ING-IND/26 - TEORIA DELLO SVILUPPO DEI PROCESSI CHIMICI

ING-IND/27 - CHIMICA INDUSTRIALE E TECNOLOGICA

ING-IND/31 - ELETTROTECNICA

ING-IND/32 - CONVERTITORI, MACCHINE ED AZIONAMENTI ELETTRICI

ING-IND/33 - SISTEMI ELETTRICI PER L'ENERGIA

ING-INF/04 - AUTOMATICA

ING-INF/07 - MISURE ELETTRICHE ED ELETTRONICHE

### Annex 3

#### Reference table for the Research Credits (RC) recognition

Activity	Credits	Evaluation	Documents
Further language competencies acquired during the PhD Program	3 RC (maximum)		Certificate of attendance and examination
Level I courses offered by the Engineering Faculty of the University of Cagliari	0,6 RC per 10 hours	Compulsory	Certificate of attendance and examination
Level II courses offered by the Engineering Faculty of the University of Cagliari	1 RC per 10 hours	Compulsory	Certificate of attendance and examination
Participation in conferences, workshops and short seminars	0,8 RC per 10 hours		Attendance certificate
Attendance to national and international PhD Schools or Summer schools	1,0 RC per 10 hours 2 RC for exam pass	Optional	Certificate of attendance and examination
Participation to national conferences	2 RC		Attendance certificate
Participation to international conferences	3 RC		Attendance certificate
Scientific papers on international journals	With I.F. 12 RC Without I.F. 6 RC	Copy of the paper (published or in press)	
Scientific papers on national journals	With I.F. 8 RC Without I.F. 4 RC	Copy of the paper (published or in press)	
Scientific papers on proceedings of international conferences	With ISBN 8 RC Without ISBN 4 RC	Copy of the paper published in the Proceedings of the Conference	
Scientific papers on proceedings of national conferences	With ISBN 4 RC Without ISBN 2 RC	Copy of the paper published in the Proceedings of the Conference	
Abstract on Proceedings of national and international conferences	1 RC	Copy of the abstract published in the Proceedings of the Conference	
Seminar activities (as lecturer/teacher)	1 RC per hour	Documents attesting the seminar activity (announcement, program, number of participants, certificate of the tutor or of the host institution)	
Research periods abroad	5 RC per month	Certificate of the host institution	
“Third mission” activities (Patents,...)	Up to 2 RC per activity (6 RC maximum for the 3 years)	Report and proposal of the tutor to the PhD Board, which determines the appropriate RC number.	
Annual reports on the research activities	15 RC		
Final thesis discussion	30 RC		