

Extract from the decree of February 22, 2019 defining the competencies of doctorate graduates and registering the doctorate in the national directory of professional certification (JORF No. 0055 of March 6, 2019).

The awarding of a doctorate certifies the ability to produce new scientific knowledge at a high level, as well as the acquisition and mastery of skills common to all doctors, related to their training through research.

Assessed skills or capabilities :

#### **Block 1: Conceiving and elaborating a research and development procedure**

- ☐ Having scientific expertise, both general and specific, within a precise field of work and research
- ☐ Assessing the status and limits of knowledge within a specific field of activity, on a local, national and international scale
- ☐ Identifying and resolving complex and new problems involving several fields, by engaging the most advanced knowledge and skills
- ☐ Identifying possibilities of conceptual breaks and conceiving innovation points within a professional sector
- ☐ Offering innovating contributions within high-level exchanges and in international contexts
- ☐ Constantly adapting to research and innovation constraints within a professional sector

#### **Block 2: Setting up a research and development, study and prospects, procedure**

- ☐ Using research methods and tools in relation with innovations
- ☐ Using the principles, tools and procedures for evaluating the costs and funding of an innovation or R&D
- ☐ Guaranteeing the validity of works, and their deontology, by using adapted control methods
- ☐ Manage the temporal constraints of research, innovation, or R&D activities
- ☐ Using engagement, risk management, and autonomy factors necessary to finalizing an innovation, research or R&D project

#### **Block 3: Promoting and transferring the results of a R&D, study and prospects, procedure**

- ☐ Engaging in transfer issues with the goal of exploiting or promoting results or products within economic or social sectors
- ☐ Respecting the rules of intellectual or industrial property
- ☐ Respecting the principles of deontology and ethics in relation to the integrity of research and potential impacts
- ☐ Using all the dispositions for publication on the international level allowing to promote new knowledge and skills
- ☐ Engaging in "open data" communication techniques to promote procedures and results

#### **Block 4: Scientific and technological vigil on an international scale**

- ☐ Obtaining, synthesizing and analysing data, avant-garde scientific and technological information on an international scale
- ☐ Possessing understanding, necessary distance and a critical outlook on all the available high-end information
- ☐ Overcoming the barriers of available data and knowledge by using different fields of knowledge and professional sectors
- ☐ Developing webs of scientific and professional cooperation on an international level
- ☐ Possessing the necessary curiosity, adaptability and opening for acquiring and maintaining a high level of general knowledge

#### **Block 5: Training and sharing scientific culture**

- ☐ Giving accounts and communicating in several languages on the subject of research of a scientific or technological, aimed at various publics or publications, both written and spoken
- ☐ Teaching and training different audiences to advanced concepts, tools and methods
- ☐ Adapting to a varied public in order to communicate and promote high-end concepts and procedures

#### **Block 6: Monitoring teams dedicated to R&D, studies and prospects activities**

- ☐ Leading and coordinating a team in the case of complex and inter-disciplinary tasks
- ☐ Identifying the missing skills within a team and taking part in recruitment or finding service providers
- ☐ Setting up the necessary procedures to initiate a spirit of entrepreneurship within the team
- ☐ Identifying key resources for a team and preparing evolutions in terms of training and personal development
- ☐ Evaluating the work of others and of the team regarding projects and goals