

No. 43 Thursday February 19, 2009 Sec. I. Page 17728

#### I. GENERAL PROVISIONS

#### MINISTRY OF SCIENCE AND INNOVATION

2805 Order CIN/ 325/2009, of February 9, which establishes the requirements for the verification of official university degrees that qualify for the exercise of the profession of Agricultural Engineer.

The ninth additional provision of Royal Decree 1393/2007, of October 29, which establishes the organization of official university education, establishes that the Ministry of Science and Innovation will specify the contents of its Annex I to which they must comply the applications submitted by universities to obtain verification of the study plans leading to the obtaining of official Bachelor's or Master's degrees, provided for in article 24, which enable the exercise of regulated professions.

Current legislation establishes the profession of Agricultural Engineer as a regulated profession whose exercise requires being in possession of the corresponding official Master's degree obtained, in this case, in accordance with the provisions of article 15.4 of the aforementioned Royal Decree 1393/2007, in accordance with the conditions established in the Agreement of the Council of Ministers of December 26, 2008, published in the "Official State Gazette" of January 29, 2009.

In said Agreement, while the appropriate reforms to the regulation of professions in general in Spain are established, the conditions to which the study plans must be adapted are determined. In its fourth section, in relation to the ninth additional provision mentioned above, it entrusts the Minister of Science and Innovation with establishing the requirements regarding objectives and title of the title and planning of the teachings.

Therefore, in view of the aforementioned provisions, it is appropriate to establish the requirements to which the study plans leading to obtaining the Master's degrees that enable the exercise of the profession of Agricultural Engineer, presented by the universities, must be adapted. for verification by the Council of Universities.

In the preparation of this order, the interested colleges and professional associations have been heard. It has also been informed by the Government Delegate Commission for Economic Affairs at its meeting on January 29, 2009.

In its virtue, following a report from the Council of Universities, I have:

Unique item. Requirements of the study plans leading to obtaining Master's degrees that qualify for the exercise of the profession of Agricultural Engineer.

The study plans leading to obtaining the Master's degrees that enable the exercise of the profession of Agricultural Engineer, must comply, in addition to the provisions of Royal Decree 1393/2007, of October 29, which establishes the organization of official university education, the requirements regarding the sections of Annex I of the aforementioned Royal Decree that are indicated in the Annex to this Order.

First final provision. Application and development enablement.

The General Directorate of Universities is authorized to issue the necessary resolutions for the development and application of this Order.





No. 43 Thursday February 19, 2009 Sec. I. Page 17729

Second final provision. Entry into force.

This Order will come into force on the day following its publication in the "Official State Gazette."

Madrid, February 9, 2009. -The Minister of Science and Innovation, Cristina Garmendia Mendizábal.

#### **EXHIBIT**

Establishment of requirements regarding certain sections of Annex I of the Royal Decree 1393/2007, of October 29, which establishes the organization of official university education, relating to the report for the request for verification of official degrees

Section 1.1 *Name. -The* name of the degrees must comply with the provisions of the second section of the Agreement of the Council of Ministers of December 26, 2008, which establishes the conditions to which the study plans leading to the obtaining titles that enable the exercise of the regulated profession of Agricultural Engineer, published in the "Official State Gazette" of January 29, 2009 by Resolution of the Secretary of State for Universities of January 15, 2009, and as provided in this Order. So:

- 1. The name of the official university degrees referred to in the previous section must facilitate the identification of the profession for which it is qualified and in no case may it lead to error or confusion regarding its professional effects
- 2. No study plan corresponding to an official university degree whose name includes the express reference to the profession of Agricultural Engineer may be subject to verification by the Council of Universities without said degree meeting the conditions established in the aforementioned Agreement and in this Order.
- 3. No degree may use the name Master in Agronomic Engineering without complying with the conditions established in said Agreement and in this Order.

Section 3. *Objectives. –To* obtain the degree, the student must have acquired the following competencies:

Ability to plan, organize, direct and control the productive systems and processes developed in the agricultural sector and the agri-food industry, in a framework that guarantees the competitiveness of companies without forgetting the protection and conservation of the environment and the improvement and sustainable development of the rural environment

Ability to design, project and execute infrastructure works, buildings, facilities and equipment necessary for the efficient performance of the productive activities carried out in the agri-food company.

Ability to propose, direct and carry out research, development and innovation projects in products, processes and methods used in companies and organizations linked to the agri-food sector.

Ability to apply the knowledge acquired to solve problems posed in new situations, analyzing information from the environment and synthesizing it efficiently to facilitate the decision-making process in companies and professional organizations in the agri-food sector.

Ability to transmit their knowledge and the conclusions of their studies or reports, using the means that communications technology allows and taking into account the knowledge of the receiving public.

Ability to direct or supervise multidisciplinary and multicultural teams, to integrate knowledge into complex decision processes, with limited information, assuming the social, ethical and environmental responsibility of their professional activity in harmony with the socioeconomic and natural environment in which they operate.





No. 43 Thursday February 19, 2009 Sec. I. Page 17730

Ability to develop the necessary skills to continue learning autonomously or directed, incorporating new concepts, processes or methods derived from research, development and innovation into their professional activity.

Section 4.2 Conditions of access to the Master.

- 4.2.1 Anyone who has previously acquired the skills set out in section 3 of the Ministerial Order establishing the requirements for the verification of university degrees will be able to access the Master's Degree that qualifies them to practice the profession of Agricultural Engineer. officers who qualify for the exercise of the profession of Agricultural Technical Engineer and their training must be in accordance with that established in section 5 of the aforementioned Ministerial Order
- 4.2.2 Likewise, access to the master's degree will be allowed when the degree certificate of the interested party accredits having completed the basic training module and the module common to the branch, not yet covering a complete block of the specific technology module and 48 credits of those offered in the set of blocks of said module of a degree title that qualifies for the exercise of Agricultural Technical Engineer, in accordance with the aforementioned Ministerial Order.
- 4.2.3 Likewise, those who hold any degree may access this Master's Degree, without prejudice to the establishment of any prior training complements deemed necessary in this case.

The previous sections will be understood, without prejudice to the provisions of the article 17.2 and in the fourth additional provision of royal decree 1393/2007, of October 29.

Section 5. Teaching planning.

The degrees referred to in this agreement are official university Master's degrees, and their study plans must be organized in such a way that the total duration of the Bachelor's and Master's training is not less than 300 European credits, to which the article 5 of the aforementioned Royal Decree 1393/2007, of October 29. To obtain the master's degree, postgraduate training will be required based on the skills contemplated in the Master's degree and the characteristics of the degree degree held by the applicant, which, in total, does not exceed 120 European credits.

These teachings will conclude with the preparation and public defense of a Master's final project, which will count between 6 and 30 credits and which in any case will be counted in the overall duration limit of the master's degree.

The total set of postgraduate training must appear in the European Supplement to the degree.

The study plan must include at least the following modules:

Module	No. of credits Europeans	Skills to be acquired
Technology and planning of the rural environment	twenty	Adequate knowledge and ability to develop and apply own technology in:
		Management of water resources: hydrology, hydrodynamics, hydrometry, hydraulic works and installations. Irrigation and drainage systems. Management of equipment and facilities that are integrated into agri-food production processes and systems.
		Agroindustrial constructions, infrastructure and rural roads. Planning and management of agricultural territory and landscape integration. Agrarian and rural development policies. Study, intervention and management.
Plant and Animal Production Technology.	twenty	Adequate knowledge and ability to develop and apply own technology in:





No. 43 Thursday February 19, 2009 Sec. I. Page 17731

Module	No. of credits Europeans	Skills to be acquired
		Plant production systems. Integrated crop protection systems.  Management of research and development projects of new technologies applied to plant production processes: biotechnology and plant improvement. Systems linked to animal production technology. Nutrition, hygiene in animal production. Management of research and development projects of new technologies applied to animal production processes: biotechnology and animal improvement.
technology Industries Agri-food.	10	Adequate knowledge and ability to develop and apply own technology in:  Production systems of agri-food industries. Equipment and systems intended for the automation and control of agri-food processes.  Quality and food safety management, food analysis and traceability.
Management and Organization of Agri- Food Companies.	10	Adequate knowledge and ability to develop and apply own technology in:  The languages and techniques of the organization and management of the agri-food company. Commercial investigation. Marketing and marketing systems for agri-food products.  Logistics management in the sector.
Master's final project.		Completion, presentation and defense, once all the credits of the study plan have been obtained, of an original exercise carried out individually before a university tribunal, consisting of a comprehensive Agronomic Engineering project of a professional nature in which the skills acquired in the teachings are synthesized.