



The future in Agricultural Engineering: news degrees in the Universidad Politécnica de Madrid (UPM)

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The Bologna process is to improve the quality of education, mobility, diversity and the competitiveness and involves three fundamental changes: transform of the structure of titles, changing in methods of teaching and implementation of the systems of quality assurance. Engineer Agronomist at the Universidad Politécnica de Madrid (UPM) has been offered as a degree of five years with a total of 400 credits and seven optional orientations: Crop Production, Plant and Breeding Protection, Environment, Agricultural Economics, Animal Production, Rural Engineering and Food Technology.

Actually, the Bologna plan creates three new degrees: Engineering and Science Agronomic, Food Engineering and Agro-Environmental Engineering, with 240 ECTS each one of them and with specific professional characteristics.

The changes that involve the introduction of these new degrees is perhaps the largest occurred never at the Spanish university system, not only by the drastic transformation in the structure of titles, but also by the new changes that lie ahead in teaching methods.

Among others we will comment the following ones:

- A year decreased duration of studies and therefore incorporation into the market.
- Elimination of the seven current guidelines to create three specific qualifications of degree.
- Decrease of optional subjects and increase in credits for the basic subjects.
- Inclusion of business practices.
- Increase in the number of credits of final project.
- Changes in methodologies and a higher involvement of teachers and students in the education.