Master's Degree in Mechanical Engineering

The mechanical engineering constitutes one of the basic props of the industry of consumption and equipment. In the last two decades, it has experienced an important development with the incorporation of new technologies that have allowed to solve old problems, to approach new fields and, definitively, to be in the forefront of the development and innovation of products.

The industry requires the formation of specialits in the design of components and mechanical systems. This involves learning of cutting edge numerical technologies of analysis that are transforming the process of mechanical design. A more efficient design process towards the development of optimized products is therefore achieved, the companies of the sector increasing their competitiveness.

Distribution of credits

Compulsory courses	Optional courses	Final Master's Thesis	Total ECTS Credits
60.00	0.00	15.00	75.00

First year (compulsory courses)

Code	Course Name	Term	ECTS Credits
33861	Computer aided design by means of the finite element method	A	4.5
32865	Design of mechanical and structural components	A	4.5
33866	Acoustics and noise control	A	4.5
33869	Dynamic simulation of multibody systems	A	4.5
33873	CAD and standardization	A	4
33874	Manufacturing process simulation	A	4
33872	Selection and characterization of structural materials	A	4
33862	Composite materials design	B	4.5
33863	Fatigue and damage tolerance	B	4.5
33864	Nonlinear computational structural mechanics	B	4.5
33871	Robotic systems	B	4
33870	Vehicle dynamics	B	4
33868	Machinery component malfunction diagnosis and correction	B	4.5
33867	Modal analysis	B	4
		Total	60

Second year

Code	Course Name	Term	ECTS Credits
33875	Final Master's Thesis	A and B	15
		Total	15