

Program	59EC – Communications Electronic Engineering B. Eng. 59SC – Telecommunications Systems Engineering B. Eng. 59SO – Sound and Image Engineering B.Eng. 59TL – Telematics Engineering B. Eng.
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Course code and name	
Code	595000024, 595000323, 595000123, 595000223
Name	Economics and Business Management
Semester	S5 [(September-January)]

Credits and contact hours	
ECTS Credits	4,5
Contact hours	45

Coordinator's name	Pérez Aguiar, Waldo Saúl [waldo.perez@upm.es]
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Specific course information	
Tuition language	Spanish
Description of course content	
<p>ICTs are not isolated phenomena, they are connected with the social reality that stimulates their development and which they transform. ICTs have facilitated the unprecedented progress of the modern enterprise.</p> <p>The development of ICTs has been planned by the public authorities and, sometimes, by the free interaction between companies and users as an engine for the definition and extension of services, the selection of alternative technologies, pricing, etc.</p> <p>The evolution in Telecommunications has been leaded by the private initiative with a strong public protection (more than in other sectors). The engineers cannot ignore this reality, on the contrary, they must understand the logic that rules the economic and social processes in which their activity is immersed.</p> <p>This course will provide the conceptual tools for this learning and understanding.</p>	
List of topics to be covered	
<ol style="list-style-type: none"> 1. Enterprise theory and markets 2. Behavior, specialization and exchange 3. Democratic governance and contractual process 4. Company and entrepreneur 5. Legal status and company governance 6. Financial information I 7. Financial information II 8. The strategic process: objectives and analysis 9. Strategies and business model 	

Prerequisites or co-requisites	
None	
Course category in the program	
<input checked="" type="checkbox"/> R (required)	<input type="checkbox"/> E (elective) <i>(elective courses may not be offered every year)</i>

Specific goals for the course	
Specific outcomes of instruction	
<ul style="list-style-type: none"> • RA1141 – To apply the ability of self-learning in new knowledges and appropriate techniques for the development or utilization of telecommunications services and systems. • RA1142 – To increase the ability of using communications and computing applications. • RA1143 – To identify the role to create, deploy, organize and manage telecommunications infrastructures, services, systems and networks in a business and institutional context. • RA1144 – To identify the economic and social impact of telecommunications infrastructures, services, systems and networks. • RA1139 - Ability to express oneself in oral and written form, and to convey information through documents and public presentations. • RA1140 - Ability for teamwork in multidisciplinary environments. • RA1138 – To produce documents and reports that communicate information. • RA759 - Extending the model of behavior of economic agents as utility maximizers for situations where operating with perfect information. • RA760 – To identify the model of behavior of the final consumer. • RA761 – To describe the model of company behavior characterized by a transformation function, both from the point of view of production and costs. • RA762 – To recognize the pattern of market behavior in perfect competition and monopoly, with interest in their differences • RA763 - Extending the model of behavior of economic agents as utility maximizers for situations where operating with imperfect information. • RA766 – To interpret the market, political and organizational solutions as various complementary solutions to the economic problem. • RA768 – To conceptualize the organization as complex form of hiring • RA773 – To become familiar with the different meanings of businessman. • RA774 – To know the main characteristics of the individual entrepreneur and unincorporated partnerships. • RA776 – To distinguish the main features of the other corporations. • RA778 - Approaching the issue of company governance. • RA784 – To recognize annual report and other financial documents that are part of the accounts of the year. • RA785 - Analysis of the profitability of a company from the information provided in the annual accounts. • RA786 - Recognizing the level of debt and working capital from financial information. • RA789 – To recognize the main tools for external strategic analysis. 	

- RA1147 – To value the different ways of organization, planning and decision making.
- RA1145 – To identify the conflict sources.
- RA1146 – To get familiar with the negotiation and leadership difficulties.

Further reading and supplementary materials

- “Economía y Empresa para Ingenieros”. Martinez Núñez, M.; Pérez Aguiar, W. S. ETSIST Printing, 2014.