

1. BASIC DATA

Module	Technology and Innovation
Degree program	Máster Universitario en Dirección de Empresas MBA
School	Facultad de Ciencias Económicas, Empresariales y de la Comunicación
ECTS	6
Credit type	Mandatory
Language	English and Spanish
Delivery mode	Campus bases & online (only in Spanish)
Semester	Second semester
Academic course	2024/2025
Module Coordinator	Mónica Villas
Teachers	Mónica Villas, Luis Ángel Galindo, Ignacio G.R. Gavilán, Juan Francisco Galán Ramírez

2. PRESENTATION

The central object of this module is the study of formal information systems based on electronic technologies, and integrated by people, procedures, resources, etc.

It is not about becoming experts in technology. Rather, it is about becoming aware that it is impossible for a company to design an information system without knowing what information it needs, but at the same time it will not be able to define its information needs without knowing what technology can do for them.

Technology is circumstantial. It does not matter which one we use, as long as it meets our information needs, but it is very relevant. Sometimes our needs can only be met with the right technology. Providing the tools to be able to give full meaning to business information needs is the essence of the module and its raison d'être in the context of the MBA studies.

The contents of this module will enable students to understand the impact of Information and Communication Technologies (ICTs) on organizations at two levels: as a force for sectoral change and in new ways of organizing work. Also, to understand technology as a support and synergy of business innovation processes.

Upon completion of this module, the student will be able to understand the basic aspects of Technology and Innovation, covering the essential contents on information systems and technologies and their

security, innovative processes and tools for innovative management (quality, processes and projects), as well as the process of transformation to eBusiness in the Information Society.

3. LEARNING RESULTS

Knowledges:

- KNO05. Recognize factors that affect a company's ethical and sustainable practices, including risks related to environmental and social impact, and efforts to minimize them.

Skills:

- SK04. Critically assess environmental, social, and governance risks affecting the company's future.

Competencies:

- CP04. Perform a sector analysis, setting medium and long-term strategies for a specific sector.
- CP08. Analyze and apply advanced operational business management tools aligned with strategic goals.
- CP09. Design plans for different areas (marketing, communication and sales, finance, production, human resources), using coordination criteria among them and aligned with the company's overall strategy.

4. CONTENTS

The contents are grouped in the following areas:

- Technological environment, information systems and technology: Information Systems Management, information technology governance, information technology systems management as services.
- Strategic role of information systems: key applications of information systems in the Enterprise
- Innovation and business change: innovation as a business strategy, innovation and knowledge management, innovation and management of change, innovation and people management
- Tools for innovative management: innovation and quality, innovation and processes, innovative process management
- The information society and EBUSINESS: EConomy and eCompany, ebusiness transformation strategy, IT systems for information management in business environments.
- New trends: New trends and ethical and social impact of information systems, information systems and society. The transformative role of artificial intelligence (AI) in business operations.

5. TEACHING-LEARNING METHODOLOGIES

The following are the types of teaching-learning methodologies to be applied:

- Master class.

- Case method.
- Cooperative learning.
- Problem-based learning.
- Project-based learning.
- Learning in simulation environment

6. TRAINING ACTIVITIES

The types of training activities to be carried out and the student's dedication in hours to each of them are identified below:

Presential modality:

Training activity	Number of hours
Master classes	36
Debates and colloquiums	12
Troubleshooting	25
Oral presentations of work	4
Written reports and essays	10
Virtual tutoring	8
Autonomous work	25
Research and projects	28
Face-t-face assessment test	2
TOTAL	150

Online modality (only in Spanish):

Training activity	Number of hours
Synchronous master classes	20
Reading content topics	28
Debates and colloquia through virtual seminars	3
Troubleshooting	25
Oral presentations of synchronous works	2
Preparation of reports and written assignments	10
Virtual tutoring	8
Autonomous work	20

Scientific/case studies and projects	13
Virtual forums	9
Group participatory activities (seminars, participation in online forums, etc.) through web conference	10
Virtual evaluation tests	2
TOTAL	150

7. EVALUATION

The following is a list of the evaluation systems, as well as their weight in the total grade of the course:

Presential Modality:

Evaluation system	Weight
Oral presentations	20%
Case/problems	15%
Reports and writings	15%
Performance assessment	10%
Assessment test	40%

Online modality (only in Spanish):

Evaluation system	Weight
Oral presentations	15%
Case/problems	15%
Reports and writings	15%
Performance assessment	5%
Assessment test	50%

In the virtual campus, when you access the course, you will be able to consult in detail the evaluation activities to be performed, as well as the due dates and evaluation procedures for each of them.

7.1. Ordinary call

In order to pass the course in the ordinary exam, you must obtain a grade higher or equal to 5.0 out of

10.0 in the final grade (weighted average) of the course.

In any case, it will be necessary to obtain a grade higher or equal to 4.0 in the classroom knowledge test, so that it can be averaged with the rest of the activities.

For face-to-face students (presential modality), it is compulsory to attend classes as a necessary part of the continuous evaluation process and to comply with the student's right to receive advice, assistance and academic monitoring by the teacher. Failure to attend more than one third of the face-to-face classes may result in the loss of the right to take the presential knowledge test.

7.2. Extraordinary call

In order to pass the course in the ordinary exam, you must obtain a grade higher or equal to 5.0 out of 10.0 in the final grade (weighted average) of the course.

In any case, it will be necessary to obtain a grade higher or equal to 4.0 in the classroom knowledge test, so that it can be averaged with the rest of the activities.

The activities that were not passed in the ordinary exam must be handed in, after having received the corresponding corrections from the teacher, or those that were not handed in.

8. CHRONOGRAM

The chronogram with dates of delivery of evaluable activities of the course is available in each edition and group in the virtual campus.

Activities	Week
Activity 1	4
Activity 2	8
Activity 3	12
Assessment test	16

This schedule may be subject to modifications due to logistical reasons. Any modification will be notified to the student in due time and form.

9. BIBLIOGRAPHY

The following is a bibliography related to the topics to be covered in the units:

- Bob Boiko (2018). IT Departments from the Info Out: Book six in the infoOut series. (ISBN-10: 1977046983)
- Nils Urbach and Frederik Ahlemann (2018). IT Management in the Digital Age: A Roadmap for the IT Department of the Future (Management for Professionals). Editor: Springer
- Benavides Velasco, C. (1998). Tecnología, Innovación y Empresa. Madrid: Pirámide.

- Boulton, R. E.S., Libert, B. D., Samek, S. M. (2000). Cracking the Value Code. How successful business are creating wealth in the New Economy. New York: John Wiley & Sons Inc.
- Fagerberg, J., Mowery, D. C., y Nelson, R. R. (2006). The Oxford Handbook of Innovation. Oxford: Oxford University Press.
- Hidalgo Nuchera, A., León Serrano, G., Pavón Morote, J. (2002). La Gestión de la Innovación y la Tecnología en las Organizaciones. Madrid: Pirámide.
- Kaplan, R. S., y Norton, D.P. (1997). Cuadro de Mando Integral (The Balanced Scorecard). Barcelona: Gestión 2000.
- Khazanchi, S., et al. (2006). Nurturing organizational innovation during change. New York: Printing Industry Center at RIT.
- Milling, P. M., y Stumpfe, J. (2001). Product and process innovation. A System Dynamics Based Analysis of Interdependencies. Universität Mannheim.
- Morcillo, P. (1997). Dirección Estratégica de la Tecnología e Innovación. Madrid: Civitas.
- Schilling, M. (2008). Dirección estratégica de la innovación tecnológica. Madrid: McGraw Hill.
- Tidd, J., y Bessant, J. (2013). Managing Innovation: Integrating Technological, Market and Organizational Change. New York: John Wiley & Sons Inc.
- Utterback, J. (1994). Mastering the Dynamics of Innovation. Boston: Harvard Business School Press.
- OCDE. (2005). Manual de Oslo. Guía para la recogida e interpretación de datos sobre innovación. OCDE.
- IT Governance Institute. (2008). Enterprise Value: Governance of IT Investments - The Val IT Framework 2.0. Isaca.
- International Organization for Standardization. (2015). ISO/IEC 38500:2015 Corporate Governance of Information Technology. ISO. Recuperado de <https://www.iso.org/standard/62816.html>.
- Blockchain for Dummies: <https://www.ibm.com/account/reg/us-en/signup?formid=urx-16905>

10. EDUCATIONAL GUIDANCE, DIVERSITY AND INCLUSION UNIT

From the Educational Guidance, Diversity and Inclusion Unit (ODI) we offer support to our students throughout their university life to help them achieve their academic achievements. Other pillars of our action are the inclusion of students with specific educational support needs, universal accessibility in the different campuses of the university and equal opportunities.

This unit offers students

1. Accompaniment and monitoring by means of counselling and personalised plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made, that is, in terms of methodology and assessment, for those students with specific educational support needs, thereby pursuing equal opportunities for all students.
3. We offer students different extracurricular training resources to develop different competences that will enrich their personal and professional development.
4. Vocational guidance through the provision of tools and counselling for students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students who need educational support can write to us at: Students with specific educational support needs:

orientacioneducativa@universidadeuropea.es

11. SATISFACTION SURVEYS

Your opinion matters! Universidad Europea encourages you to participate in satisfaction surveys to detect strengths and areas for improvement about the faculty, the degree program and the teaching-learning process. Surveys will be available in the survey area of your virtual campus or through your e-mail. Your assessment is necessary to improve the quality of the degree.

Thank you very much for your participation.