



centro adscrito a:



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

INNOVATION AND ENTREPRENEURSHIP

TECHNOLOGY MANAGEMENT AND INNOVATION. TEACHING GUIDE

[2022-23]

GENERAL DETAILS

Name of the module:	Technology Management and Innovation
Academic Year:	2022-2023 First quarter
Degree:	MASTER'S IN MANAGEMENT AND LEADERSHIP
Number of credits (ECTS):	5
Date of latest revision:	October 2022
Lecturers:	Mr Raúl Sánchez Ms Catalina Balseiro

1. GENERAL DESCRIPTION

Technology is not a goal in and of itself! It is the strategy, and the ways it is implemented are the tactics necessary for achieving different short-, medium- and long-term business goals. The role of managing information systems has been changing over the last few years, from a vision that was technical and based on managing operations infrastructure (the 'boss' of the data processing department) towards a vision that is becoming more and more strategic and is based on bringing value to the business.

Strategic technology management refers to the most proactive and transformational role that information technology plays in relation to business and the need to align Information Systems and Technology with the company's strategy as a whole. It is important to remember that technology, thanks to its influence and the amount of investment and spending that it already represents in companies, forms an ever-increasing part of the agenda for companies' general management and management committees.

Currently, IS and IT not only support daily operations, but they also allow the company to connect in a different way with its providers, customers and partners, and to take advantage of new business opportunities. The use of information and technology cuts through and can transform a company's whole value chain or entire industrial sectors. It is a source of competitive advantage, but also of strategic risk. On top of that, technology is also the basis for being able to initiate or deepen so-called digital transformation. Digital transformation is business strategy, based on IS and IT but affecting all areas of the business, which allows a company to be competitive and maximise all the possibilities for success in a digital world that is changing and whose cycles are becoming shorter.

2. OBJECTIVES

- To identify the business needs of an organisation and how to select a technology strategy to satisfy those needs.
- To understand the process and contents of IS and IT strategy planning and to have methodical approach for putting it into practice in a company.
- To understand the evolution and transformation of the role of IT in a company, the factors that have contributed to this role and the forms that it takes on, both in terms of the business and in terms of its relationship to providers and partners.
- To understand the design and management of technological architecture and infrastructure from a strategic perspective.
- To understand the concept of innovation and the business models that are based on applying ICTs.
- To develop business case studies that evaluate and justify investments in technology.
- To develop leadership skills.
- To motivate and manage teams.
- To recognise technology trends that can maximise the competitive strategy of an organisation.
- To communicate effectively with business leaders on the topic of technology.

3. CONTENTS

UNIT 1. Strategic decisions in information systems and technology

UNIT 2. Information technology (both classic and disruptive) and company strategy

UNIT 3. Strategic planning of information systems and technology

UNIT 4. Digital transformation in a company

UNIT 5. Innovation and new business models based on ICTs

UNIT 1. Strategic decisions in information systems and technology

Contents

1. Information systems in a company.
2. Evolution of the IS/IT model.
3. Strategic alignment of IS/IT.
4. Strategic management and the role of the strategic manager.

UNIT 2. Information technology (both classic and disruptive) and company strategy

Contents

1. The era of information and data-driven decision-making.
2. Creating value through information technology.
3. New technologies and how they are used (Blockchain, IoT, AI, VR, AR...).
4. Analytics y Data Science.

UNIT 3. Strategic planning of information systems and technology

Contents

1. Understanding the environment (macro and micro).
2. Understanding the market (internal analysis).
3. Formulating a strategy.
4. Planning for implementation.

UNIT 4. Digital transformation in a company

Contents

1. Organisations and the digital market.
2. Persona 2.0 (client persona, employed persona, family and conciliation persona, and citizen persona).
3. The 4 pillars model of digital transformation.
4. Who should the digital transformation of a company? Roles involved

UNIT 5. Innovation and new business models based on ICTs

Contents

1. Taxonomy of internet-based business models.
 - Traffic (SEM, SEO, SM...), conversion rates (UX...) and average order value (XS, US...).

2. Disruptive business models.
3. Non-operational business models.
4. Innovation and Agile Start-up.
5. Innovation, entrepreneurship and intrapreneurship.

4. TEACHING AND LEARNING METHODOLOGY

Euncet Business School's experiential learning process brings together a combination of methodologies which, in a practical and innovative way, allow students to acquire skills specific to the professional exit profile that is expected for an executive program.

The course is run based on the following methodologies: theoretical learning, through lessons given by the lecturer; individual study, with resources supplied; and practical learning, through both individual and group work. The course will revolve around various case studies. Support sessions will be available where cases can be developed, as well as practical sessions to work with different techniques and tools as necessary.

5. ASSESSMENT

The Master's in Management and Leadership is based on a skills evaluation model. The student's progress is assessed on the basis of their accomplishment of various objectives set out throughout the study program, by means of reflection and analysis of case studies and a test.

The final qualification for the module will be calculated mathematically using the marks received in the two proposed assessed activities.

6. BIBLIOGRAPHY

6.1. BASIC BIBLIOGRAPHY

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6.2. FURTHER READING

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- López López, David. Reputación corporativa y visibilidad estratégica. Modelo de gestión de la reputación online y su aplicación en las empresas de Barcelona. Tesis doctoral, Universitat Internacional de Catalunya, 2014.
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